CHINA'S AGRICULTURE POLICY AND U.S. ACCESS TO CHINA'S MARKET

HEARING

BEFORE THE

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

ONE HUNDRED THIRTEENTH CONGRESS
FIRST SESSION

THURSDAY, APRIL 25, 2013

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UNITED STATES-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

WASHINGTON: 2013

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

The Commission was created on October 30, 2000 by the Floyd D. Spence National Defense Authorization Act for 2001 § 1238, Public Law No. 106-398, 114 STAT. 1654A-334 (2000) (codified at 22 U.S.C. § 7002 (2001), as amended by the Treasury and General Government Appropriations Act for 2002 § 645 (regarding employment status of staff) & § 648 (regarding changing annual report due date from March to June), Public Law No. 107-67, 115 STAT. 514 (Nov. 12, 2001); as amended by Division P of the "Consolidated Appropriations Resolution, 2003," Pub L. No. 108-7 (Feb. 20, 2003) (regarding Commission name change, terms of Commissioners, and responsibilities of the Commission); as amended by Public Law No. 109-108 (H.R. 2862) (Nov. 22, 2005) (regarding responsibilities of Commission and applicability of FACA); as amended by Division J of the "Consolidated Appropriations Act, 2008," Public Law Nol. 110-161 (December 26, 2007) (regarding responsibilities of the Commission, and changing the Annual Report due date from June to December).

The Commission's full charter is available at www.uscc.gov.

April 30, 2013

The Honorable Patrick J. Leahy
President Pro Tempore of the Senate, Washington, D.C. 20510
The Honorable John A. Boehner
Speaker of the House of Representatives, Washington, D.C. 20515

DEAR SENATOR LEAHY AND SPEAKER BOEHNER:

We are pleased to notify you of the Commission's April 25, 2013 public hearing on "China's Agriculture Policy and U.S. Access to China's Market." The Floyd D. Spence National Defense Authorization Act (amended by Pub. L. No. 109-108, section 635(a)) provides the basis for this hearing.

At the hearing, the Commissioners received testimony from the following witnesses: William Northey, Iowa Secretary of Agriculture; Fred Gale, Senior Economist at USDA Economic Research Service; Dermot Hayes, Professor and Pioneer Chair in Agribusiness, Iowa State University; Kevin Brosch, Partner at DTB Associates; William Westman, Vice President for International Trade, American Meat Institute; Patty Lovera, Assistant Director, Food & Water Watch; Veronica Nigh, Economist, American Farm Bureau; Colin Carter, Professor, University of California Davis; David Miller, Director of Research and Commodity Services, Iowa Farm Bureau; Mark Lange, CEO, National Cotton Council; Barbara Glenn, Vice President or Science and Regulatory Affairs, CropLife America; Julius Schaaf, Vice Chairman, U.S. Gains Council. The hearing examined China's approach to developing its agricultural sector, how that development presents opportunities and constraints for U.S. producers, and what safety and public health issues continue to plague China's agriculture and food processing industries.

We note that prepared statements for the hearing, the hearing transcript, and supporting documents submitted by the witnesses will soon be available on the Commission's website at www.USCC.gov. Members and the staff of the Commission are available to provide more detailed briefings. We hope these materials will be helpful to the Congress as it continues its assessment of U.S.-China relations and their impact on U.S. security.

The Commission will examine in greater depth these issues, and the other issues enumerated in its statutory mandate, in its 2013 Annual Report that will be submitted to Congress in November 2013. Should you have any questions regarding this hearing or any other issue related to China, please do not hesitate to have your staff contact our Congressional Liaison, Reed Eckhold, at (202) 624-1496 or via email at reckhold@uscc.gov.

Sincerely yours,

Hon. William A. Reinsch
Chairman

Hon. Dennis C. Shea
Vice Chairman

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CHINA'S AGRICULTURE POLICY AND U.S. ACCESS TO CHINA'S MARKET

THURSDAY, APRIL 25, 2013

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Washington, D.C.

The Commission met in Room 127 of Curtiss Hall at Iowa State University, Ames, Iowa at 8:00 a.m., Commissioners Daniel M. Slane and Michael R. Wessel (Hearing Co-Chairs), presiding.

WELCOME FROM DR. WENDY WINTERSTEEN
ENDOWED DEAN OF THE COLLEGE OF AGRICULTURE AND LIFE SCIENCES
IOWA STATE UNIVERSITY

DR. WINTERSTEEN: Good morning. Members of the U.S.-China Economic and Security Review Commission, distinguished panelists, Iowa State University faculty and staff and students, and all of our visitors and guests, again, let me extend a warm welcome to you this morning on this beautiful Iowa day.

We are pleased that you are here today for the U.S.-China Commission's hearing on "China's Agriculture Policy and U.S. Access to China's Market." Many of you have traveled long distances from Washington, D.C., California, Tennessee and elsewhere. That just shows how important this hearing is for our nation's agricultural sector and for U.S. trade relations with China.

Each year the Commission has just one hearing outside Washington, D.C., so we feel especially proud that the College of Agriculture and Life Sciences has the privilege of hosting this year's field hearing in historic Curtiss Hall.

The Commission chose a great location for this hearing. Iowa is one of the nation's powerhouses of agricultural production, particularly in corn, soybean, hogs, and eggs. Iowa is a perennial national leader in terms of agricultural exports. Iowa is also home to some of the world's most successful and innovative agribusiness firms.

Iowa is a great location for this hearing because of where we are meeting today. Iowa State University is the state's land grant university. We are proud of the fact that Iowa State has some of the nation's and the world's top programs in agriculture and life sciences, education, research and extension, and it's a legacy that dates back more than 150 years.

Looking ahead, the future looks bright. It certainly is bright today. We just broke an all-time enrollment record in our college and campus wide. We annually graduate hundreds of talented young men and women who are fully prepared to be the future leaders in agriculture.

Today, our college has 40,000 living alumni around the world, and they are all making a difference. Making a difference is what distinguishes the work of the U.S.-China Economic and Security Review Commission. The Commission has an outstanding record in analyzing U.S. trade relations with China.

The Commission was established in 2001 when Congress voted to approve China's entry into the World Trade Organization. Its goal is to advise Congress on policy toward China in both economic and national security matters. The Commission has up to eight hearings per year. Transcripts are available on its Web site, and the hearings also inform the Commission's Annual Report which is submitted to Congress each fall.

The Commission's annual field hearing is typically held at a university. It focuses on the effect of China's economic policies on a particular region or industrial sector in the United States. For example, a previous field hearing held in New Orleans looked at the impact of Chinese aquaculture imports on the shrimp and catfish industries in the Gulf coast.

Today's hearing on U.S. food and agricultural trade with China is our focus for the discussion. The aim is to assess how this trade relates to China's agricultural development and policy and the broader implication for U.S. producers and consumers.

In 2010, China became the largest export market for U.S. agricultural goods. Last year's exports marked a record. Iowa has also experienced rapid growth in agricultural trade with China. Many of our top officials, business leaders, and academics travel there on a regular basis.

Here today to address these issues are 12 leading experts from universities, trade groups, industry and government agencies. As I mentioned earlier, we have 40,000 alumni around the world, and a few will be featured here today--not all of them, just a few.

And one of our most important alums is Iowa Agricultural Secretary Bill Northey who is an alumnus of our college and will be the first to testify.

Mr. Mark Lange of the National Cotton Council, who earned his Ph.D. at Iowa State in economics, will also testify.

I am proud of other witnesses who hail from Iowa. Julius Schaaf and David Miller are here. Both are Iowa farmers who serve at the Iowa Farm Bureau and at the U.S. Grains Council.

Also testifying is Iowa State's own Dermot Hayes, Professor of Economics and the Pioneer Hi-
Bred Chair in International Agribusiness. Dr. Hayes is one of the nation's leading agricultural economists and will provide insights on the future development of Chinese agriculture.

Thank you again for coming to Iowa State University to contribute to the important work of the U.S.-China Commission.

Now I will turn the podium to Commissioners Mike Wessel and Dan Slane, the co-chairs of today's hearing. Thank you.

OPENING STATEMENT OF COMMISSIONER MICHAEL R. WESSEL
HEARING CO-CHAIR

HEARING CO-CHAIR WESSEL: Thank you, Dean Wintersteen. Thank you for inviting us to this beautiful campus and this beautiful building and all that you and your staff have done to make today's hearing a possibility.

As you noted, the Commissioners chose Iowa for the state's position as one of the most important farm producers in the country, and we chose Iowa State University for its well-deserved reputation as a top agricultural research facility. This, after all, is where George Washington Carver first studied horticulture. The College's Seed Science Center was the first seed-testing lab in the country in 1895. The University and its Agriculture College have a long series of firsts and enjoy a place among the top schools in the world.

You also have some considerable expertise on the relationship between the United States and China and the trade that goes on in agricultural products. That is what we will explore today.

While China has become America's top market for agricultural goods, all is not well in the relationship. China is not doing enough to follow the free trade and free market principles that were codified in its agreement to join the WTO in 2001. U.S. farm sector exports are one of the bright spots in America's trade relations with China, and we enjoy a trade surplus in the sector.

But the U.S. competitiveness in many farm products is not reflected in the trade numbers. Trade success isn't simply a measure of the quantity of trade but its composition as well. U.S. producers of beef, chicken and pork, a major industry here in Iowa, have encountered serious and unfair barriers to sales of their products in China. China's subsidies remain a problem, and while China's U.S. sales of soybeans have grown substantially, Chinese policies often discriminate against processed soybeans as well as processed corn and cotton.

High value-added industries, such as biotech and agrochemicals, also suffer from arbitrary approvals, lax intellectual property protection, and limited access.

China has adopted a policy of self-sufficiency in most food products. While understandable, it simply is not realistic given China's booming demand and relative scarcity of arable land and clean water.

Chinese agricultural practices with their heavy reliance on fertilizers for crops and antibiotics for livestock and aquaculture do serious damage to the environment. China should import far more meat products and processed food from the U.S., which has a comparative advantage in many agricultural industries.

As with many other sectors, China's goal of self-sufficiency is being advanced by its state-owned enterprises seeking to acquire natural resources at their original source. Chinese agricultural policy is no different.

An article earlier this year in the Washington Post described Chinese state-owned corporations that are beginning to buy up farmland overseas. The

article highlights a recent study published in the Proceedings of the National Academy of Sciences, indicating that as much as 1.75 percent of the world's agricultural land is being bought by foreign investors, not just China, but that the farmland acquired exceeds the size of France and Germany combined.

Agricultural production is something Iowa and the U.S. excel at. As with so many other areas, we find that China is not pursuing policies in line with its WTO commitments nor those that are in line with market-oriented approaches.

Today we will learn more and seek recommendations on how American agriculture can reap more of the benefits of the relationship. I'll now call on my colleague and co-chairman for today's hearing, Commissioner Dan Slane.

PREPARED STATEMENT OF COMMISSIONER MICHAEL R. WESSEL
HEARING CO-CHAIR

Thank you, Dean Wintersteen.

As you noted, the Commissioners chose Iowa for the state's position as one of the most important farm producers in the country. And we chose Iowa State University for its well-deserved reputation as a top agricultural research facility. This, after all, is where George Washington Carver first studied horticulture. The college's Seed Science Center was the first seed-testing lab in the country in 1895. The University and its agriculture college have a long series of firsts and enjoy a place among the top schools in the world.

You also have some considerable expertise on the relationship between the United States and China and the trade that goes on in agricultural products. That is what we will explore today.

It's important to keep in mind that while China has become America's top market for agricultural goods, all is not well in the relationship. China is not doing enough to follow the free trade and free market principles that were codified in its agreement to join the World Trade Organization in 2001. U.S. farm sector exports are one of the bright spots in America's trade relations with China, and we enjoy a trade surplus in this sector. But the U.S. competitiveness in many farm products is not reflected in the trade numbers.

U.S. producers of beef, chicken, and pork have encountered serious and unfair barriers to sales of their products to China. In many cases, China's inspection protocols and the applications of its regulations on sanitation have not been transparent for these products, and have not been applied fairly or with scientific justification. China's subsidies remain a problem as well. And while U.S. sales of soybeans have grown substantially, Chinese policies often discriminate against processed soybeans as well as processed corn and cotton. High value-added industries, such as biotechnology and agrochemicals, also suffer from arbitrary approvals, lax intellectual property protection, and limited market access.

China has adopted a policy of self-sufficiency in most food products. This is not realistic, given China's booming demand and relative scarcity of arable land and clean water. Chinese agriculture practices, with their heavy reliance on fertilizers for crops and antibiotics for livestock, do serious damage to the environment. This should argue that China import far more meat products and processed food from the United States, which has a comparative advantage in many agriculture industries.

I'll now call on my colleague and co-chairman for this hearing, Commissioner Dan Slane.

OPENING STATEMENT OF COMMISSIONER DANIEL M. SLANE
HEARING CO-CHAIR

HEARING CO-CHAIR SLANE: Thank you. On behalf of the Commission, I want to express our sincere appreciation to Dean Wintersteen and all the great people at Iowa State who made this hearing possible.

In 1999 and 2000, the U.S. agricultural industry lobbied hard for Congress to support China's admission into the WTO. Their position was that China would become a major purchaser of U.S. food. The Department of Agriculture estimated that by 2005, sales to China would grow by $2 billion per year. In fact, sales have increased by an average of $2.5 billion per year since 2005, substantially beyond the original estimate, and 2012 was another record year.

For the past three years, China has been the largest market for U.S. farm goods. However, some sectors have been disappointed, especially producers of beef, poultry and pork, value-added processors of corn, cotton and soybeans, and corollary industries, such as agrochemicals.

Many U.S. exporters face non-tariff barriers to China's market. Many of these barriers lack scientific basis, and Chinese government decisions have impeded market access for many U.S. agricultural products. Today we hope to explore those barriers and the changes occurring in China.

Chinese habits and demands are changing, and they're having a major impact on the future of American agriculture. The world's largest country, almost five times the population of the U.S., is changing its diet and eating habits. Contributing to that change is the American fast-food industry. Thousands of U.S. fast-food restaurants have opened in China, and they are just the top of the iceberg.

In addition, Wal-Mart is building huge supermarkets throughout China, and McDonald's wants a restaurant on every other corner. As a result, the Chinese are eating fewer grains and vegetables and more meat. When we couple the increasing demand for animal protein with the limited tillable acres in China, about two-thirds of our tillable land, and when we factor in their severe water and environmental problems, you can appreciate the constraints on Chinese production.

These constraints along with growing demand have the potential to generate a huge increase in agricultural exports from the U.S. Up until the 1980s, the Chinese people were essentially vegetarians. The start of the change was switching over from rice boiled in water to rice cooked in soy oil. In the 1990s we opened up our vast markets to China and purchased billions of dollars of Chinese products. As a result, the income of Chinese workers began to rapidly increase. For the first time, the average Chinese worker could afford to buy something that in the past was an unobtainable luxury--meat. And buy they did. It started with pork, chicken, and eggs and has progressed to dairy and beef.

Today, Chinese children consume as much milk and dairy products as American children--unheard of 20 years ago. However, China does not have the

capability to provide the cattle, hogs and chicken with the roughage, the quality feed needed to produce quality meat protein. China cannot produce enough corn to feed its livestock. China's attempt to attain self-sufficiency in meat, dairy and poultry production amid a dwindling supply of clean water is not sustainable.

China produces just under 54,000 metric tons of meat each year, ranking it number one in the world, but it's not enough to satisfy the future demand for meat protein.

Another big change taking place in Chinese agriculture is the shift from backyard livestock production to Western-style feedlots. These modern systems will require immense amounts of grain, grain products, soybeans and soy products in amounts beyond China's capacity to produce. This includes beef, pork, dairy and poultry production.

During the last decade, the Chinese economy has taken over 300 million people out of poverty and into the Chinese middle class. The U.S. government predicts that over the next decade hundreds of millions of Chinese will enter the middle class, demanding Western-style diets and substantially more meat.

The bottom line is that the world's largest agricultural producer with rising incomes and increasing demand for animal protein consumption cannot now and will never be able to feed itself in the future at the level demanded by its citizens. This presents an enormous opportunity for American farmers and for the economy of the United States.

Now, before I introduce the first panel, let me note that we will break for lunch at 11:45 and return at 12:45 for the final two panels. At the conclusion, around 4:00 p.m., we will begin the public hearing portion. Those who wish to claim a spot to speak are asked to register and limit their comments to three minutes.

So will the first three panelists come forward? Our first panel today will examine China's agricultural development and its implications for U.S. producers.

Secretary William Northey, the Agriculture Secretary of Iowa, has traveled extensively in Asia representing Iowa farmers, including a trip to China just a few weeks ago. Secretary Northey regularly meets with Iowa farmers and can speak to their concerns. Throughout his career in agriculture, Secretary Northey has been a leader in a variety of farm groups at the national level, and in 2011 was elected President of the National Association of State Departments of Agriculture.

Secretary Northey graduated from Iowa State University with an undergraduate degree in Agricultural Business and received a master in Business Administration degree from Southwest Minnesota State University.

Our second witness is Dr. Fred Gale, a Senior Economist at the U.S. Department of Agriculture's Economic Research Service. Dr. Gale's research at USDA focuses on China's agricultural sector and its implications for U.S. producers. Dr. Gale has published on a variety of topics, including a recent report on China's pork industry in which he cautioned U.S. producers not to be overly

optimistic about future pork exports to China.

He is currently also working on issues such as food consumption, agricultural finance, and the corn market in China. Dr. Gale received a bachelor's degree in Economics from Virginia Tech and a Ph.D. in Economics from North Carolina State University.

Finally, Dr. Dermot Hayes, Professor of Agricultural Economics at Iowa State University and Co-Director of the Food and Agricultural Policy Research Institute. In the field of agricultural economics, Dr. Hayes is a leading authority on international trade, consumer demand, price analysis and commodity markets.

At the Institute, Dr. Hayes helps to model agricultural outlooks for the world that serve as a key analytical tool for governments and businesses. He has dealt with China and worked both academically and as a consulting trade economist to the National Pork Producers Association and the U.S. government.

Dr. Hayes is particularly familiar with China's policy in the pork sector. Dr. Hayes received a Ph.D. from the University of California at Berkeley.

We'll start with Secretary Northey.

PREPARED STATEMENT OF COMMISSIONER DANIEL M. SLANE
HEARING CO-CHAIR

Welcome to the U.S. - China Commission's hearing on Chinese agriculture on behalf of the Commission, I wanted to express our sincere appreciation to Dean Wintersteen and all the great people at Iowa State who made this hearing possible.

In 1999 and 2000, the U.S. agriculture industry lobbied hard for congress to support China's admission into the WTO in 2001. Their position was that China would become a major purchaser of U.S. food. The department of agriculture estimated that sales to China would grow by $2 billion per year by 2005.

In fact, sales to China have increased by an average of $2.5 billion per year since 2005, substantially beyond the original estimates and 2012 was another record year. For the past 3 years, China has been the largest market for U.S. farm goods. However, some sectors have been disappointed, especially producers of beef, poultry, and pork; valued added processors of corn, cotton and soybeans and corollary industries such as agrochemicals. Many U.S. exporters face non-tariff barriers to China's market. Many of the barriers lack a scientific basis and government decisions have impeded market access for many U.S. agricultural products.

Today we hope to explore those barriers and the changes occurring in China's agriculture.

We are all familiar with the affect China has on the price of corn and soybeans. But habits and demand are changing and they are having a major impact on the future of American farming. The world's largest country, almost 5 times the population of the U.S., is changing its diet and eating habits.

Contributing to that change is the American fast food industry. Thousands of U.S. fast food restaurants have opened in China and they are just the tip of the iceberg. In addition, Wal-Mart is building huge supermarkets throughout China and McDonald's wants a restaurant on every other corner. As a result, the Chinese are eating comparatively fewer grains and vegetables and more meat.

When we couple the increasing demand for animal protein, with the limited tillable acreage in China,--about 2/3rds of our tillable land—and when we factor in their severe water and environmental problems you can appreciate the constraints on Chinese production. These constraints, along with the growing demand, have the potential to generate a huge increase in agricultural exports from the U.S.

Up until the 1980's, the Chinese people were essentially vegetarians. The start of the change was switching over from rice boiled in water to rice cooked in soy oil. In the 1990's, we opened up our vast market to China and purchased billions of dollars of Chinese products. As a result, the income of Chinese workers began to rapidly increase. For the first time, the average Chinese worker could afford to buy something that in the past was an unobtainable luxury – meat.

And buy they did. It started with pork, chicken, and eggs and has progressed to dairy and will eventually lead to increased beef consumption. Today Chinese children consume as much milk and dairy products as American children, unheard of 20 years ago.

However, China does not have the capability to provide the cattle, hogs and chicken with the roughage-the quality feed needed to produce quality meat protein. China cannot produce enough corn to feed its livestock. China's attempts to attain self-sufficiency in meat and poultry production amid a dwindling supply of clean water is not sustainable.

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During the last decades, the Chinese economy has taken over 300 million people out of poverty and into the Chinese middle class. The U.S. government predicts that over the next decade 500 million more Chinese will enter the middle class demanding western style diets and substantially more meat.

The bottom line is that the world's largest agricultural producer, with rising incomes and increasing demand for animal protein consumption, cannot now and will never be able to feed itself, in the future, at the level demanded by their citizens.

This presents an enormous opportunity for American farmers and for the economy of the United States.

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OPENING STATEMENT OF WILLIAM NORTHEY
AGRICULTURE SECRETARY OF IOWA

MR. NORTHEY: I appreciate the opportunity to be able to be here. Thank you for coming to our state and our campus. As was mentioned, I'm a graduate of Iowa State. I actually had many lectures in this hall. It didn't look quite this nice back 30 years ago when I had lectures in this hall, but thank you for being here.

We wish we could show you some field work going on out in the farmland. Normally we'd see that. Maybe next week we will. But we've gotten some much needed rain recently and looking very much forward to a good crop year again rather than the drought that we experienced last year.

I'll hit some highlights of my comments. As was mentioned, Iowa is certainly a very significant agricultural state: number one in corn and soybeans; number one in hogs and eggs and ethanol production. Certainly that's DDG production as well then that ends up, some of that ends up in China. Number four in beef production.

And, in fact, actually, we're fairly large compared to many other countries of the world. If Iowa was a country, we would be the fourth-largest corn-producing country in the world; we'd be the fifth-largest soybean-producing country; we'd be the seventh-largest pork-producing country in the world.

So the scale here is much more than three million people can use. We've always been trading with other parts of the United States, as well as locations around the world, and so that's been very active. Our farmer organizations work very hard to be able to make sure we have markets for all that we can produce, and our producers are such that every year, at least over time, we end up with more production. We end up with more efficient production but also more production that needs to find places to go and so been very active.

Over the last ten years, the impact of trade and other things--we've seen the growth of the ethanol industry over the last ten years--the Chinese trade has been very important as well. Since soybeans are a large crop in Iowa--ten years ago--2002--we had sales of agricultural products back to our farmers--crops and livestock--of $12 billion. Good number. A top handful of states. By 2007, it was a $20 billion up from 12. By 2010, it was $24 billion. And the last two years, it's been about $30 billion, the sales of crops and livestock, back to our producers. Up from 12 ten years ago.

So several different things. Certainly some weather problems in other places, production increases. Obviously, the ethanol industry was important to that. But actually when you look at the total acre impact--in fact, some studies that Dr. Hayes has done show the total acre impact of increased demand over the last ten years has been demand from China.

Now, it's not without issues, but it has been a huge driver in the market, and by the time you reverberate $30 billion around the Iowa economy, including to our machinery manufacturers, our other suppliers, our financial

institutions, our financial services, our insurance industry, it's been a huge impact, and one of the reasons we have one of the lowest unemployments in the country is agriculture, and, in part, because of that increased trade.

That is very important to us. Now, we all know that we need to do better, and there are some clouds on that horizon, but at the same time, we also need to make sure that we have that access, that opportunity to be able to grow, and I think there are opportunities for that to grow. We have some things to look at.

Iowa has had a special relationship with China, actually, fairly recently rediscovered. And that was the current president of China came to Iowa 28 years ago as a young man to study hog production. He spent some time in eastern Iowa around Muscatine, traveled around, looked at farms, and other ag businesses, got to know some folks, hadn't been back to Iowa since, but came again last year as Vice President of China and visited what he calls his "old friends" in Muscatine. Had a very warm feeling for Iowa at that time, certainly Iowa, Iowa people, as well as the agriculture that is so productive, and that he knows they need to understand more about.

They need to have that trade. They certainly need to be able to adopt some modern practices increasingly in some of their agricultural industries. But as he was here last February, he made some very interesting points about how important that relationship was, as well, with China and how that agricultural relationship can carry us through some of these other bumps.

You'll hear, I think, from the next two speakers the challenges we have in the pork industry right now and some recent changes and what that impacts. As was mentioned, it's not just dollars. It's about the products within that. This trade has been very beneficial if we can send them products that are very low value here, that are high value there, and some of that has stopped because of their concerns around ractopamine.

We have some issues around the soybean industry, as well, and corn around biotech approvals, and how that process has really stopped in the last two years, maybe in relation to the leadership change in China, but for whatever reason that has stopped, and it needs to be restarted.

Our folks use new technologies very heavily here and want to use new technologies, but China being such a big market, we need to make sure and have that market open for these products, and these products need to be approved, or our farmers will feel uncomfortable and our companies will feel uncomfortable bringing those new products forward until our biggest customer is ready to accept those, knowing that we could create real trade issues with that customer.

So those are certainly areas that are issues. We have many folks that have set up business, agribusinesses, there as well. Intellectual property rights, consistent rules, and what they can expect to happen, even solutions to handling disagreements, is very important. Many of them have decided not to take their latest technology there because they're concerned about intellectual property.

Lastly, let me say there seems to be, because of the concerns of

production in China, a real interest in expanding their agriculture, understanding the science of producing more to be able to feed a growing population there. They're looking at big investments in agricultural research.

I think that's an opportunity potentially for the United States and China to work together on these research efforts and may be a way to be able to help us work some of the different ways that we look at the science of some of these products, the products that we're trying to trade. If we can learn some of these things together, if we can work through some of those things, I think we have an opportunity to be able to build on that.

Now what that all looks like, whether that's university to university, you know, government to government, whatever those pieces are, I think we need to take advantage of that. It's been said that China is to invest $450 billion in agricultural research over the next ten years. As I asked, what does that mean? Because I don't know what we invest in agricultural research here, in public research in the United States, we invest less than $2 billion a year compared to an average of $45 billion.

Our definitions may be different in what public research is, but certainly it looks to be that they're looking at agriculture as a strategic industry. We need to as well. And if we can pair up on some of these things, maybe they can be the things that get us through some of the other concerns or the disagreements we have in other areas.

So let me stop there and say thank you again for being here.

PREPARED STATEMENT OF WILLIAM NORTHEY
AGRICULTURE SECRETARY OF IOWA

Prepared remarks of Bill Northey, Iowa Secretary of Agriculture
Testimony before the U.S.-China Economic and Security Review Commission
China's Agriculture Policy and U.S. Access to China's Market
Thursday, April 25, 2013

Thank you for bringing this hearing to Iowa to further examine our important trade relationship with China. Welcome to all the Commissioners, staff, fellow witnesses and members of the public in attendance.

Spring is a special time in agriculture. We wish we could show you more spring planting going on in the countryside on your way to Ames, but after last year's drought we are very pleased to get some much needed moisture to recharge our soil. Iowa farmers are ready to plant once the weather cooperates. And, like all good farmers, we expect this year to be a better year than last year. Iowa retained its position in 2013 as the top corn, soybean, pork, egg and ethanol production state in spite of the tough growing conditions.

Iowa has a special long term relationship with China. We are currently celebrating the 30th anniversary of our Sister State relationship with Hebei province. That relationship led to a young Chinese official visiting Iowa 28 years ago. He learned much while here and met Iowans he now calls his "old friends." That man is now President of China, Xi Jinping. When he visited Iowa in February of 2012 as the Chinese Vice President he visited these old friends, led an China US Agricultural Conference, visited a farm and spoke warmly of his first time in Iowa. Several groups of Iowans traveled to China after Xi's visit to our state and have had the opportunity to see firsthand how important the visit was in the eyes of the Chinese public.

We also heard reference to President Xi telling officials in the Chinese government how important the agricultural relationship is to the overall relationship between the US and China. President Xi is reported to have said that the agricultural relationship between the US and China is like the ballast in the ship, it keeps our overall relationship "upright" as the ship travels through storm-filled waters. We will have unsettled times, but agriculture should be, and is, a steading force to bring the ship into calmer seas. The agriculture relationship between the US and China is one of the most mutually beneficial areas of trade between our countries. The US benefits from markets for our agricultural products and the people of China benefit from a safe a reliable food source for their population.

Governor Branstad just returned from a trip to China last week where he was the first U.S. Governor to greet him after Xi's accent to the Presidency earlier this year. The Governor led a delegation with more than fifty Iowans at the invitation of the Chinese People's Association for Friendship with Foreign Countries and included meetings with senior government officials, current and potential business partners, a U.S. – China Governors Forum and celebration events to recognize Iowa's 30th anniversary of a sister state with the Chinese province of Hebei.

The relationship the US and Iowa has with China is very important to our farmers. Iowa is the largest producer of soybeans in the US and China is the world's largest buyer of soybeans. Over $2 billion of Iowa soybeans and $14 billion of US soybeans end up in China's soybean crush facilities, eventually with the soybean meal feeding livestock and the soybean oil used in feeding China's consumers directly.

I know there are segments of US agriculture that have been impacted negatively by increased trade in specialty or niche products, but for commodity production, specifically for soybean farmers, this trade has been and will almost certainly continue to be hugely beneficial into the future.

China makes the world soybean markets today. Japan is the United States' second largest customer for soybeans. China buys 6-7 times the soybeans from the United States that Japan buys. And Chinese demand continues to grow! When traveling to southern China in March, a group from the Iowa Soybean Association heard an estimate from a private trader that he expects Chinese imports of soybeans to grow from around 60 mmt of soybeans today to 80 mmt of soybeans in five years. These soybeans imports would come from both North and South America. He also estimated China would be importing 20 mmt of corn in five years, up from small amounts of net corn imports today.

As with almost all trading partners, we continue to have market access issues that we need to continue to work through with China. Recent restrictions that China has added for pork products around ractopamine and their requirement for 3rd party inspections to prove compliance is a significant issue. Pork is such a staple of the Chinese diet, so this move to limit access is a significant issue. The total value of US pork exports to the Chinese mainland and Hong Kong last year was $886 million, according to media reports. Some of the exports of pork products are especially important as they are products of limited value in the US or other foreign markets.

We would also like to see more access in China for beef from the US. There should be many opportunities for high value beef in China in the future, if market access allows such trade to take place. Increasing the sale of lower value beef products in China would also be important to the US beef industry.

It is also important we continue to encourage China to move towards parallel approval of new biotech traits, rather than sequential registrations. This will help prevent any potential trade issues from China receiving soybeans, and eventually corn, shipments of products that include traits that have been approved in the U.S. but have not yet been approved in China.

I expect we will continue to see significant growth in shipments of dried distillers grains (DDGs) to China and will allow us to move beyond past concerns that China has expressed around the pricing of these products.

Iowa agribusinesses and manufacturers are exporting to China and in some cases have made investments in production facilities there.

Going forward it is important to recognize that China sees agriculture as a strategic interest, and as a result will be making a significant investment in agriculture research. I've been told that China intends

to invest $450 billion in public agriculture research over the next 10 years. I understand that their definition of public research and ours may be very different, but regardless of the definitions, that is a significant investment and highlights the important role research cooperation between our countries could play. Better relationships in research could lead toward opportunities to avoid trade conflicts in the future or at least give us more opportunity to address future issues of concerns.

In closing, China is and will continue to be a critical trading partner for U.S. agricultural products and it is vitally important we maintain the strong, mutually beneficial relationship our countries enjoy. I appreciate the work of this Commission to help support and strengthen the relationship between the U.S. and China and thank you for the opportunity to offer testimony today. I look forward to your questions.

OPENING STATEMENT OF DR. FRED GALE
SENIOR ECONOMIST, USDA ECONOMIC RESEARCH SERVICE

DR. GALE: Good morning. Thank you.

I'm also pleased to be here in Iowa again. I was actually here a year ago, more than a year ago, for the visit of now President Xi Jinping to Iowa, and at that time, just to follow-up on Secretary Northey's comments, we had a high-level meeting to discuss cooperation between USDA and the Ministry of Agriculture on agricultural technical as well as economic and statistical exchanges, and those are proceeding this year as we try to improve our cooperation and improve the overall relationship with China on agriculture, which both countries see as a strategic industry.

China is at a critical period right now where its rising living standards and its transition to an urbanized industrial economy present a great opportunity for U.S. agricultural producers in the 21st century. China has always been a nation of peasant farmers with as much as 80 percent of their population living off the land in the past.

Agriculture prospered during the 1950s when farmers again had a period of stability after a period of war and upheaval. But then agriculture stagnated when China moved to collectivized farms during the late 1950s to '70s. But then when China abandoned that collective farming, agricultural collective policy, and distributed the land to individual households, production responded as farmers had incentives, stronger incentives to produce, and when they got the benefits from their own production.

China also liberalized their markets and increased the role of prices in guiding production. They gave farmers freedom to produce, and they allowed more private operators in agricultural trade, marketing and processing. And as a result, there was a dramatic increase in Chinese output that has supplied most of China's production-- increased demand over the past three decades.

But now China's small-farm-collective-land-ownership model is facing strains as consumption outstrips production and capacity as we've heard already today. And also migration of the rural population to cities is accelerating, and that's putting pressure on agriculture. Prices and food costs are rising in China, and also China faces food safety, environmental problems, and disease threats that result from the intense use of land and water resources, as well as the fragmented production and marketing system that China has for agricultural products.

In the future, China will need to increase its reliance on agricultural imports to ease pressure on its limited resource base, and Chinese authorities and private industry leaders are now in the process of trying to figure out how to make a transition to a more modernized productive agricultural sector. And still within China, there's a strong pressure to protect their small farmers from imports in order to narrow the vast difference in living standards and income between the rural, the countryside, and the cities.

In addition, there's also emerging pressure from China's food

processing and agricultural input industries to also gain protection from multinational companies and imports as well.

China's WTO accession in 2001 was a watershed event in China's recent economic growth, and imports and exports, agricultural imports and exports, have both surged since WTO accession, as already pointed out.

And there are many issues that have already been brought up and will be brought up throughout the course of this day, I think, with China's implementation of its commitments, but broadly speaking, China has been responsive to WTO requirements--broadly speaking--in its reforms of trade policies and its increase in transparency and crafting domestic farm support policies that at least meet the letter of the law for WTO if not always the spirit.

So broadly speaking, China has come a long way from where it was ten or so years ago before WTO accession. One of the outgrowths of WTO accession is an increased support for its agricultural producers, which was basically nonexistent more than ten years ago. China has increased subsidies and price supports rapidly over the past ten years, and these policies were designed and crafted to try to fit under WTO limits or to emphasize programs that are so-called "green box" programs that are exempt from WTO limits.

So China's dollar support for agriculture has increased at a dramatic rate, but they have mostly remained technically within their WTO commitments, with one exception appearing to be cotton in the two years where China has purchased large volumes of cotton at support prices and put it into storage, and the value of that price support appears to have violated or exceeded their de minimis limits under WTO.

However, that's actually been positive for U.S. producers because China's imports of cotton have surged as they have taken their domestic product out of the market and put it in warehouses and storage.

China has a very strong preference for self-sufficiency in almost every agricultural product that's possible, but that is becoming harder to maintain as China's demand outstrips its production capacity in one commodity after another, and their overall self-sufficiency rate in grain, which they include cereal grains as well as soybeans and potatoes, went below 90 percent last year in 2012, according to Chinese officials, which is below their threshold of 95 percent. So there's a lot of consideration of what this means for the future in China.

And I'll just close my comments by saying that both countries can mutually gain from developing a mutually benefiting and stable trading partnership in agricultural products. There are benefits on both sides, and I think both sides recognize that, but there are obviously still a lot of obstacles in the way, and in coming years, it will be important to understand and appreciate the differences on both sides in priorities and approaches to policy to prevent conflicts over small matters from undermining this important broad trading relationship as it develops in our century. Thank you.

PREPARED STATEMENT OF DR. FRED GALE
SENIOR ECONOMIST, UDSA ECONOMIC RESEARCH SERVICE

April 25, 2013
H. Frederick Gale, Jr.
Senior Economist, Economic Research Service, U.S. Department of Agriculture
Testimony before the U.S.-China Economic and Security Review Commission
China's Agriculture Policy and U.S. Access to China's Market

China's rising living standards and the transformation of its economy pose a major opportunity and challenge for the global food system in the 21st century. The United States—with abundant land and water and a history of agricultural innovation and efficiency—is well-positioned to be a major supplier of food and fiber to China's urbanizing and increasingly affluent consumers. China is now the largest export market for U.S. farm products. U.S. agricultural exports to China reached nearly $26 billion in calendar year 2012, up from $13 billion in 2009. However, there is potential for conflict that could undermine this important trading relationship.

Most of China's rising demand for food and fiber has been supplied by its own farmers. During the first three decades after introducing market-oriented reforms, China's agricultural output grew and diversified in a remarkable manner. According to Food and Agriculture Organization estimates, China's per capita calorie supply was 13 percent below the world average in 1980 and rose to 7 percent *above* the world average in 2009 (fig. 1). The per capita supply of animal-based protein increased even more dramatically, rising from about one-third of the world average in 1980 to 19 percent *above* the world average in 2009 (fig. 2). China is now the world's leading producer of a wide range of commodities. The country's share of world production of many major commodities equals or exceeds its 20-percent share of world population (table 1).

Despite its success over the past three decades, China's small-farm-production and collective-land-ownership model is facing mounting challenges as the country's demand for commodities outstrips supply, costs and prices escalate, and imports surge. Large numbers of rural people in China are withdrawing from agriculture as off-farm opportunities improve. Authorities now worry about "hollow villages" and "atrophy of agriculture" as part-time farming becomes prevalent, some land is left uncultivated, and investment in agriculture lags. As the country urbanizes, new problems have arisen related to food safety, pollution from animal waste and chemical fertilizer, and disease threats. These problems reflect pressures from intensive use of land and water, dense livestock populations, and fragmented production and marketing. In order to achieve agricultural sustainability in a new era of urbanization and industrialization, China will need to increase its reliance on agricultural imports to ease pressure on its limited resource base. However, there is still considerable pressure to protect farmers from import competition in order to increase rural incomes.

China's WTO accession in 2001 lowered barriers to agricultural trade, and both imports and exports surged in the ensuing decade. While there are a number of specific concerns that will likely be raised in other testimony at this hearing, broadly speaking, China has been responsive to WTO requirements in reforms of trade policies, increasing transparency, and crafting a domestic support policy that conforms

to WTO rules. Policies and practices are shaped by WTO rules and generally meet the "letter of the law," if not always its spirit.

Since joining WTO, China has increased its domestic support for agriculture rapidly. Chinese officials say increased budgetary support and higher prices for the agricultural sector is an inherent part of the transition to an urbanized and industrialized economy. Chinese officials say their strategy is to give the maximum amount of support allowed by WTO rules. Most expenditure is focused on so-called "green box" programs that are not limited by WTO, and the expenditure is largely devoted to infrastructure and other supporting programs to increasing grain production capacity. Most direct payments to farmers are only loosely tied to "grain" production (but not to specific commodities) so they can be declared as either "green box" or "non-product-specific" measures so they do not count toward commodity-specific *de minimis* limits. The value of "market price support" reported to WTO is kept modest by declaring only the volume of commodities actually purchased under the program as "eligible" for support.

For one commodity—cotton—China appears to have exceeded its WTO *de minimis* limit by purchasing large volumes of cotton at support prices during 2011/12 and 2012/13. The cotton support price policy appears motivated to maintain domestic production of cotton, but it actually promotes imports of cotton in the short run. Most of this year's Chinese cotton crop was placed in reserves while China's cotton imports continued at a robust pace.

The competitiveness of Chinese agricultural commodities vis-à-vis imports is eroding as farm production costs escalate, its currency appreciates, and agricultural productivity grows slowly. Agricultural imports have been rising, prompting concerns in China about "food security." In 2012, China imported over 80 percent of the soybeans it consumed. According to Chinese officials, imports of corn and wheat rose to 4 percent and rice to 2 percent of consumption last year. China's traditional measure of self-sufficiency in "grain" (including cereals, soybeans, and potatoes) fell below 90 percent during 2012.[1]

China's food security and related "industry security" concerns are a primary driver of its agricultural policies. These concepts are nuanced and difficult for outsiders to understand. Chinese government and industry officials assert that the volume of potential Chinese demand is so large that the country's imports would outstrip the capability of world markets to supply the country. They also express strategic concerns that reliance on imports of any particular commodity will leave the country vulnerable to global price fluctuations and manipulation of prices by other countries or multinational companies.

Domestic agricultural policy reflects food security concerns. China's price supports and subsidies are focused on preventing declines in production of staple food grains—rice and wheat. The "industry security" concern is reflected by authorities' hesitancy to reduce the support price for cotton during the last two years. They have expressed concern that cotton production might plunge if the cotton price falls, increasing reliance on cotton imports. Another example is a set of initiatives to boost domestic production and processing of vegetable oils from rapeseed and peanuts to offset the reliance on imported

[1] "Wo Guo Liangshi Zigei Lü Die Po 90% [Our Country's Grain Self-Sufficiency Rate Fell Below 90%]," China Broadcast Network, January 30, 2013.

soybeans.

Wary of relying on a single country as a supplier, Chinese authorities also have a strategy of diversifying agricultural trade partners. This strategy is likely behind Chinese initiatives to develop Argentina and Ukraine as potential suppliers of corn imports during 2012.

The self-sufficiency ideal is becoming harder to attain as China's consumption expands and domestic production encounters resource constraints. Over the past decade, reliance on agricultural imports was compartmentalized by importing certain commodities like soybeans and cotton while remaining self-sufficient in key commodities like rice, wheat and corn.

Chinese officials now often espouse a "two markets, two resources" strategy for supplementing domestic commodities with imports. The strategy is not explicitly spelled out but appears to call for control of overseas farm production, processing and logistics by Chinese companies for commodities that cannot be supplied domestically. Chinese officials advocating this strategy assert that vertical integration gives multinational grain companies a cost- and price-advantage in global markets, and they say Chinese companies need to imitate this strategy by controlling their supply chain.

Many Chinese companies and local governments have ambitions to invest overseas. The National Development and Reform Commission formulated a strategic plan for overseas agricultural investment. The two flagship companies chosen to shore up vegetable oil supplies are Chongqing Grain Group and Beidahuang (an agribusiness company created by the Heilongjiang Province state farm system) which have plans to invest in soybean and rapeseed production, processing and logistics in Brazil, Russia and Canada. Reportedly, Chongqing Grain Group has already begun importing soybeans from its Brazil project. COFCO and other state-owned companies are engaged in overseas investment in soybean, cassava, wine, rubber, and sugar projects. The strategy is financed by earmarked loans from State banks and facilitating public offerings in China and overseas equity markets.

China and the United States are natural trading partners in agricultural products. We are now at a key juncture in this relationship where China is transitioning from its historical character as a nation of villages and farmers to an urban-industrial society. As China becomes a nation of urban consumers there will be greater impetus to import agricultural products. Both countries can gain by establishing a stable, mutually-beneficial relationship in agricultural trade, but the two countries have differing priorities and policy approaches with potential for conflict. In coming years it will be important to understand these differences in order to prevent mounting conflicts over small matters that may undermine the broader trading partnership forming between China and the United States.

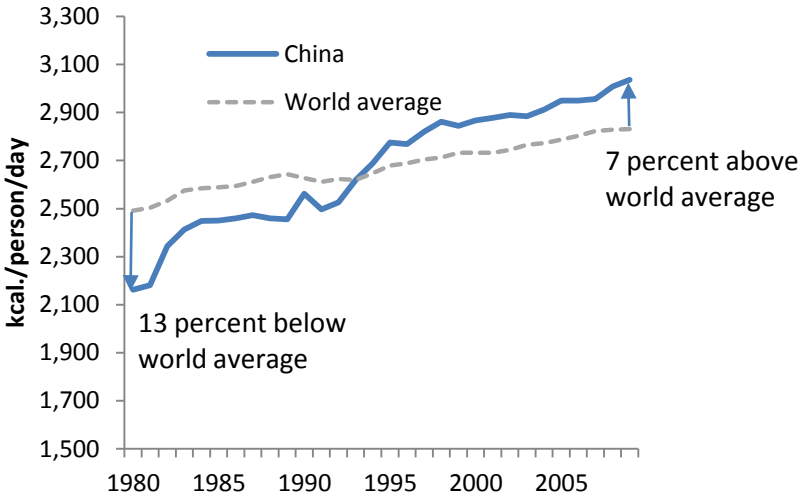
Table 1. Shares of world production, population and land, China and United States, 2012

Item	China	United States
Production shares for major commodities	Percent	Percent
Soybeans	5	31
Fluid milk	6	17
Sugar	7	4
Beef	10	20
Broiler chickens	17	20
Wheat	18	9
Corn	24	32
Cotton	29	14
Rice	31	1
Pork	49	10
Apples	56	6
Total population*	20	4
Agricultural population*	31	< 1
Cropland*	8	10
Grasslands*	12	7

*U.N. Food and Agriculture Organization, FAOSTAT, 2011.

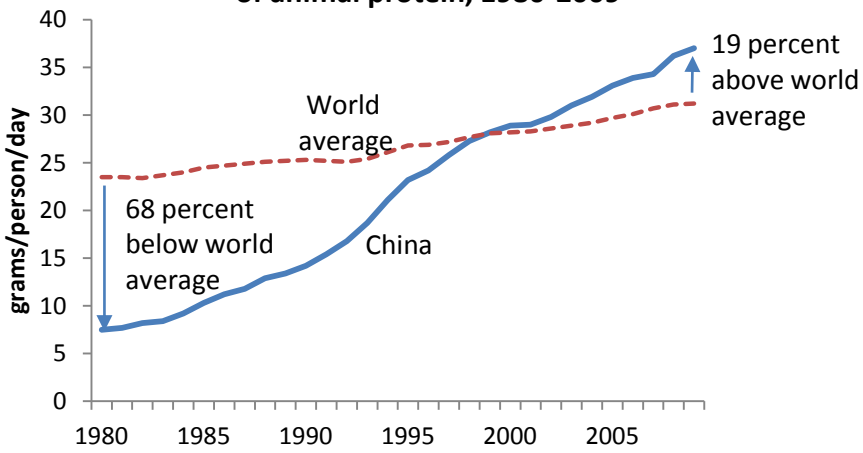
Source: Calculated by ERS from USDA Production, Supply and Distribution estimates, except where noted

Figure 1. Per capita food supply, China and World average, 1980-2009



Source: ERS analysis of data from U.N. Food and Agriculture Organization, FAOStat.

Figure 2. Per capita supply of animal protein, 1980-2009



Source: ERS analysis of data from U.N. Food and Agriculture Organization, FAOStat.

OPENING STATEMENT OF DR. DERMOT HAYES
CO-DIRECTOR, FOOD AND AGRICULTURAL POLICY RESEARCH INSTITUTE
PROFESSOR OF AGRICULTURAL ECONOMICS, IOWA STATE UNIVERSITY

DR. HAYES: Thank you.

First, I'd like to congratulate you for coming to Iowa. Economists have a concept called comparative advantage, and we can predict trade patterns based on that, and there is no place in the world that has a better comparative advantage for trading with China than Iowa. On a land basis, we have about 30 times the resources per person than they do, and it's such an obvious concept that I've been teaching it for 25 years as the--in my Econ 101 class--as the classic case of where two people can benefit from trade.

You mentioned the WTO hearings in the early 1990s. Prior to that, there was a PNTR, Permanent Normal Trade Relationship, hearing. It was very tight. I testified at that. I used the same concept then as I use now, and I remember being a little bit more optimistic than my friends at the USDA, and I'm glad I was.

I also want to congratulate you for focusing on agriculture. Our governor met Premier Xi Jinping last week, and the first thing the Premier said was the future of U.S.-China relationships depends on food and food security, and it's clear to me that the Premier realizes that the benefits from trade flow two ways, and that they have as much to benefit from that trade as we do.

I was on that trip and I caught a bug. I apologize for my voice. The official term is "crud," and it's been a little bit of a challenge to speak since I got back.

I want to make a couple of comments about the ingenuity of the Chinese people. What we should do is ask how did they do it? How did they achieve this fantastic level of self-sufficiency with less land than we have and more than five times the population?

And the reason I want to do that is think about the reasons they can achieve it and in a world where millions of people are moving from the rural areas to the cities. So what we're doing is we're seeing this vast migration of people with an increase in wages to reflect labor scarcity and the consequences of the one-child policy which has reduced the number of young people entering the labor force.

So think about how they achieved it and then ask if they can continue. One thing they've done is to have multiple crops on one acre per year. It's an ingenuous solution, but it requires vast labor resources in the time between the crops to get in and harvest one crop and plant the second because it's a tight window if you want to get multiple crops per year.

A second thing they've done is they've fed their livestock on household and restaurant and industrial waste. Again, that requires a lot of labor. I'm old enough to remember my mother keeping the milk and the bread to give to the guy with the bike and the slops to feed the pigs, and that's a great way to turn human

labor into grain.

But the Chinese people are driving cars, and they're no longer riding bikes, and they no longer have the time to do that, and several years ago, about half of their pork production was coming from those systems, and that system has been eliminated. Again, it's the concept of using labor to create land, and now that labor has better uses. That land is disappearing.

Another thing they do is to farm hillsides and rocky areas, and you've seen those beautiful pictures of corn terraces that can only be farmed by hand. That is also disappearing. If you're only farming three acres of corn, you have better uses to do than to farm a hillside. And as that labor leaves, that land becomes unproductive because it cannot be mechanized.

If you did an apples with apples comparison and count the land in the U.S. that is similar to the land that is cropland in China, we have about three times their agricultural area, but we have different ways of counting. We only count the land that is cropped, and they count the land on the hillsides because they crop it.

Lastly, they use the entire animal. They eat the entire animal and value the interesting parts at a premium to the rest so if you had fish head soup, the guest of honor gets the head or chicken head. Loosely, we eat about one-half of the animal in the U.S., and, in China, they eat the entire live animal in some way, and those interesting pieces are a premium. So that's another way to stretch your resources.

And lastly, and the sound thing, is they've had pretty well a starch-based diet, and as you know, they're moving to a protein-based diet, and you can see that when you look at the height of the young people, in the cities, in particular. So how are they going to continue to do then? Well, first, as they move to the cities, their consumption of meat will grow. That's for sure. Now I've done some projections, and there's symmetry. If you look back on what they've done in the past, they have imported the resources at about ten million U.S. crop acres per year, every year, so they're increasing their import by ten million acres per year every year. They're now at about 70 million acres of total imports. And looking forward, I think that will continue.

They'll need another ten million acres per year for every year for the next ten years so the answer to how they're going to do this is they're going to import it. They've been importing the protein, that is soybeans, and now they're starting to import the corn, and the DDGS, and the barley. I have some graphs in my report that show this, and it's all based on USDA data.

One other comment. If you look at South Korea and Japan, which have similar resources, under the same pressures, they stopped producing corn and soybeans all together, and they now import about half of their meat.

So the next question is will they import the grains or the meat? Very important, here in Iowa, we produce 30 million pigs a year. We recently lost the Chinese market, and the value of each of those pigs dropped by about $10 so it's a huge question because pig farmers or livestock farmers either will get a new customer or a new competitor in terms of feed grain prices.

The Chinese can do whatever they want because it's not really a market-based economy. Right now, according to my calculations, their cost of production for livestock is about twice as high as it is here or twice as high as our delivered costs could be. So they're paying a penalty for these restrictions in terms of high prices. I'm not sure how much more the Chinese people can put up with those kind of prices, and for the pieces they actually like, it's about four times the advantage.

So we're losing, we're rendering product here that could be used over there, and they're not obtaining that product. Japan tried that in the '70s and '80s, and you all heard about the $100 steaks and the $200 watermelons, and Japan quit doing that because people got tired of those prices.

Japan is a much more stable society and much more homogenous society than China, and I'm not sure that China can continue to do this either. So I'll finish by saying I'm much more optimistic about trade. I think it's in their best advantage, and I think Premier Xi realizes this, and I look forward to your questions.

Thank you.

PREPARED STATEMENT OF DR. DERMOT HAYES
CO-DIRECTOR, FOOD AND AGRICULTURAL POLICY RESEARCH INSTITUTE
PROFESSOR OF AGRICULTURAL ECONOMICS, IOWA STATE UNIVERSITY

April 25th 2013

Dermot Hayes, Professor of Economics and Finance, Pioneer Chair in Agribusiness Iowa State University

Testimony before the U.S.-China Economic and Security Review Commission

China's Agriculture Policy and U.S. Access to China's Market

Question

What will be the impact of China's rising incomes and urbanization on food demand in China? In particular, how can China's large population shift to a protein-based diet?

Response

Let me begin with some background material to put the issue in perspective.

In an effort to slow the conversion of crop land to residential and commercial use, the Chinese Government recently set a red line minimum of 120 million hectares of arable land. This area is about 20% smaller than the 360 million acres of crop land we have in the US. However, the Chinese definition of crop land is more generous than in the US because Chinese farmers plant crops on hillsides and in areas that would be used for pasture in the here. If we use an "apples with apples" definition of arable land, the US has more than twice the area available to China. Yet China feeds more than four times the US population. This is a remarkable achievement and speaks volumes about the resourcefulness of the Chinese people.

It is worth asking how China managed to achieve its current level of food self-sufficiency before asking whether it can continue to do so. As you consider how it achieved this success, think about the rapid decline in the Chinese labor force and unprecedented movement of young people from rural to urban areas, and ask if this can continue.

How Does China Manage to Feed So Many People?

First, China has traditionally used its vast labor resources to plant multiple crops on the same acre within the same year. In order to maximize the number of crops per growing season, harvesting crews rush to gather one crop and then quickly plant a new crop. Most of the harvesting and planting is done by hand.

Second, Chinese livestock growers have in the past used farm, household, and restaurant waste to feed animals. As recently as five years ago, half the pigs produced in China came from these backyard units.

Here again, China managed to stretch its land resources by utilizing labor. In this case, the labor was used to collect and process the waste as a substitute for commercial feed.

Third, and as mentioned above, Chinese farmers have traditionally cultivated places such as hillsides and rocky areas that could not be accessed by mechanized agriculture. They also grew crops in areas that would be considered too dry or infertile in the US. Here again labor acted as a substitute for land.

Fourth, Chinese consumers responded to the relative scarcity of animal protein by developing a cuisine that utilizes the entire animal. Consumers in the US utilize approximately one half of each live animal as muscle meat. The rest of the animal is rendered. Consumers in China value every single part of the animal and will often pay a premium for items such as chicken feet, fish heads, and pork ears. My own assessment based on several very interesting meals in China is that one hundred percent of every animal is eaten. By utilizing a much greater share of the animal for human consumption, scarce protein resources are stretched.

Finally, and out of necessity, many rural Chinese survived on a starch based diet. As recently as 1990, Chinese consumption of beef, pork and poultry was only a third of the levels consumed in China today.

Looking towards the future, rapid urbanization will continue to reduce the tens of millions of farm workers who have been responsible for this miracle of production. And as these workers leave, the labor needed to grow multiple crops on the same acre, collect waste to feed to animals and cultivate land that cannot be mechanized will disappear. Meat consumption data shows that as families move from rural to urban areas meat consumption grows dramatically. These same families will need a place to live and unless the Central Government can somehow bring new construction to a halt, China will continue to lose about 2.5 million acres per year to urban development. Couple this actual reduction in land area with the “land” that is lost as labor resources in agriculture decline and China is losing about 3% to 4% of its land area every year at a time when demand for land based products is skyrocketing.

Figure 1 in my report shows the phenomenal growth in animal feed consumption that has taken place since 1990. This trend is projected out for ten years. To put this trend in perspective, if we assume that all of the additional corn and soybeans required to meet this anticipated demand is grown on land with a per acre yield equal to that achieved in the US in 2011, the additional feed will require an additional 70 million acres. Compare this to the 23 million acres in Iowa or the 25 million acres that have been devoted to corn ethanol in the US. Given the extreme scarcity of land in China and the need to add more acres for labor intensive crops, it seems highly unlikely that China will find the additional acres to meet this new demand.

So where will China find the millions of new acres it needs? It will find them in the same place it found the protein used to expand meat consumption since 1990. It will import these acres.

Figure 2 shows the Chinese soybean market since 1990. As can be seen, ALL of the additional soybeans used to expand livestock production were imported. In fact, Chinese soybean production has fallen since 1990, and is now just enough to meet the domestic human food demand. The total number of “acres” of soybeans, cotton and coarse grains imported in 2012 hit 70 million, (again using US yields to translate

tons to acres) see Figure 3. This all happened in the past twelve years. .

Until recently, China was able to avoid significant imports of corn. However, as backyard production, multi-cropping rates, and the total area of crop land continues to fall, corn imports will be required to balance the imported soybean meal in rations. The only obvious alternative is for China to import a significant amount of animal protein.

Under similar economic and demographic forces, Japan and South Korea first shifted to a 100% reliance on imported feed and then began to import 40% to 50% of their meat supplies.

Question

Is China's attempt to remain self-sufficient in meat and key staple crops viable given the country's inherent supply constraints (e.g. declining arable land, decreasing aquifers, and extreme water, air and soil pollution)? To what extent can China raise productivity in order to enhance supply, particularly in the corn, pork, and poultry sectors? If this effort requires an increase in the use of fertilizers, won't this also cause further degradation of the water that would be required for enhanced crop production? What are some of the (1) technology- and (2) policy-based measures that China might pursue?

Response

I will deal first with the question of whether China will remain self-sufficient in meat. This is a key issue for US livestock producers. If China imports corn and soybeans, this will drive up feed prices in the US to the detriment of the US livestock industry. However, if China buys livestock products, it will create a new customer for US livestock producers.

Import meat or feed?

There seems to be a very strong preference in China for self-sufficiency in meat, especially in pork. China currently imposes significant technical and economic barriers on US beef, pork and Chicken. If China continues to close its borders to imported meat, it will be able to maintain self-sufficiency in these products. The laws of supply and demand will work and Chinese meat production will rise to meet demand. The only real issue is the prices that consumers will need to pay for this achievement. Japanese consumers were once willing to pay enormous prices for domestically produced livestock products, and it is possible that Chinese consumers will put up with the same price pressures.

The reason that meat produced with imported feeds is so expensive is that the costs of shipping bulky feed all the way to an Asian port and then via truck to farms is expensive. Soybean meal prices in China are typically $100 per ton higher than in the US and corn is typically $3 per bushel higher. These price differences simply reflect international transportation costs.

Based only on the difference in feed costs alone, Chinese pork production costs and farm level livestock prices would be 40% greater than in the US. In contrast, US meat packers can transport frozen meat to China for a transportation cost equal to 5% of the Chinese domestic price.

The cost of production comparison described above works so long as animal productivity is similar in both countries. My own research has shown that as China has added to the density of livestock production, animal disease problems have been exacerbated. This problem is so bad that China has experienced reduced animal productivity (see Figure 3). This Figure compares the productivity of US and Chinese sows over the past 30 years. Notice how US productivity has increased while Chinese sow productivity has fallen.

Because of persistent disease issues and expensive livestock feed, Chinese pork production costs are now at least twice as high as in the US. This differential will continue to increase unless China can get the disease issue under control.

The cost to consumers of achieving meat self-sufficiency is enormous and this objective means little so long as the animals are fed on imported feed. The burden is borne disproportionally by low income households who would otherwise have been able to increase their animal protein intake. The bias against meat imports also eliminates the possibility of stabilizing prices when domestic production is low.

Even if livestock production cost were identical in both countries, there would be an opportunity for profitable trade based only on differences in preferences and tastes. The US has a surplus of exactly those parts of the animal that Chinese consumer's prize, and as a result, the delivered prices of some items are often one quarter of the cost of producing these items from domestic producers.

Ultimately, this issue will be decided by the veterinary experts that have been brought in to address the disease issues and by the willingness of Chinese consumers to sacrifice food affordability for food security. Consumers may eventually rebel against this policy much as they have done under similar circumstances throughout human history.

How best to increase productivity?

(a) Increase Corn Yields

Now to the second part of the question about how China can increase productivity. China still produces an enormous amount of corn and it generally experiences yields that are more than 40% lower than in the US (see figure 4). One reason for low yields is that China uses a much lower planting density for corn. It does so because corn is still hand planted and because farmers need to weed between the corn plants by hand. One solution would be to adopt genetically modified varieties so that weeds can be sprayed instead of hand cultivated. In addition, China could encourage a switch to mechanical cultivation with higher planting densities.

US seed companies have developed varieties designed to perform at very high planting densities. Research has shown that these US varieties can potentially provide a 20% boost in corn yields if they are adapted to Chinese conditions.

However, so long as property rights are weak in China, US seed companies do not have the incentive to adapt their very best varieties to Chinese conditions. The solution is to protect the property rights of plant genetics companies with the same vigor used to eliminate counterfeit copies of the Beijing Olympic mascot.

(b) Improve Animal Productivity

China prohibits the use of all beta agonists including Ractopamine. This product is in use in the US for pigs, and for cattle in the US, Brazil, Japan and Canada. Last summer the international food standards agency of the UN, the Codex Alimentarius adopted a minimum residue level that implicitly acknowledged that the product is safe. Ractopamine can increase feed efficiency by as much as 15% and it allows producers to grow larger leaner animals. China can same millions of tons of feed by adopting the international standard.

(c) Increase the Productivity of Farm Workers

The greatest opportunity for increasing Chinese farm productivity is to allow the farm workers who currently grow land intensive crops such as corn, to switch to crops where China has a comparative advantage. Consider the human resource waste when a skilled farmer spends an entire year growing three acres of corn in a world where a single US farmer can grow three thousand acres. If China were to allow the market to incentivize these farmers to grow high value crops such as flowers, fruits, vegetables and ornamental plants, total farm income and the value of farm output would soar. The US can play a role by importing these products to the benefit of US consumers.

Question

What are the main challenges to US-China agricultural trade, in the (1) short, (2) medium, and (3) long terms?

Response

I will give a brief overview of the current trade issues and would be happy to provide a more detailed description during my oral testimony if needed.

Short Run Challenges

The short run trade issues involve US restrictions on the importation of Chinese poultry products and Chinese restrictions on US pork (ractopamine), beef (BSE), and chicken parts (anti-dumping). On the US side, the general distrust of Chinese food quality standards by US political officials needs to be addressed. It seems unlikely that China will purchase US livestock products so long as the US restricts imports of Chinese cooked poultry.

Medium Run Challenges

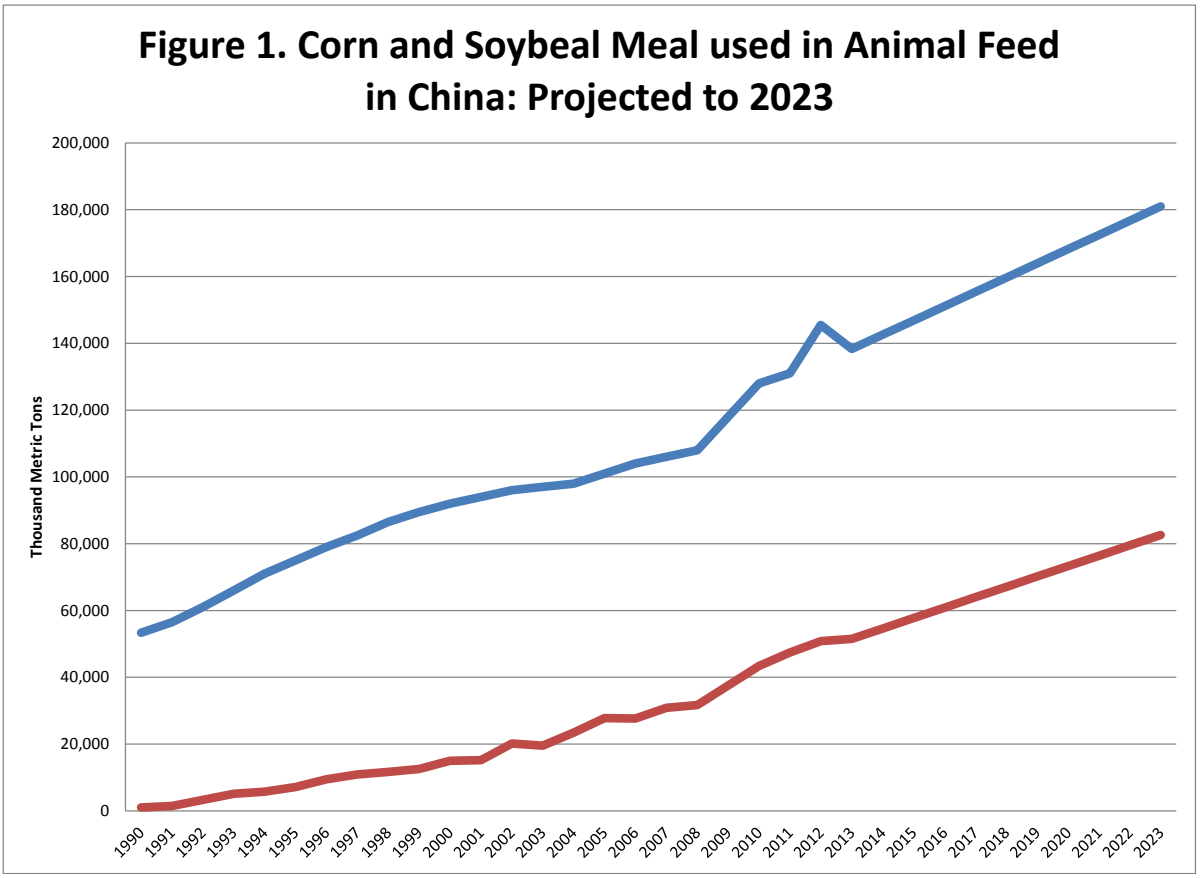
Medium term challenges involve China's refusal to accept technologies such as genetically modified

varieties of corn and wheat, and animal performance innovations such as Ractopamine. The currency manipulation issue will also continue to cause strains. US political leaders should realize that negative statements they make about China are widely reported on in China and that these comments are used to reinforce the arguments of those in China who favor food security and protectionism.

Long Run Challenges

The US and China need to find a way to allow enormous trade flows without the on again off again price volatility that we have experienced over the past couple of decades. The US farmer does not really need a new customer who buys enormous quantities one year and disappears the next. China does not want a supply source that it cannot rely on. This problem can be resolved by use of long term production contracts and the commitment by both governments not to interfere with deliveries made under these contracts.

Appendix



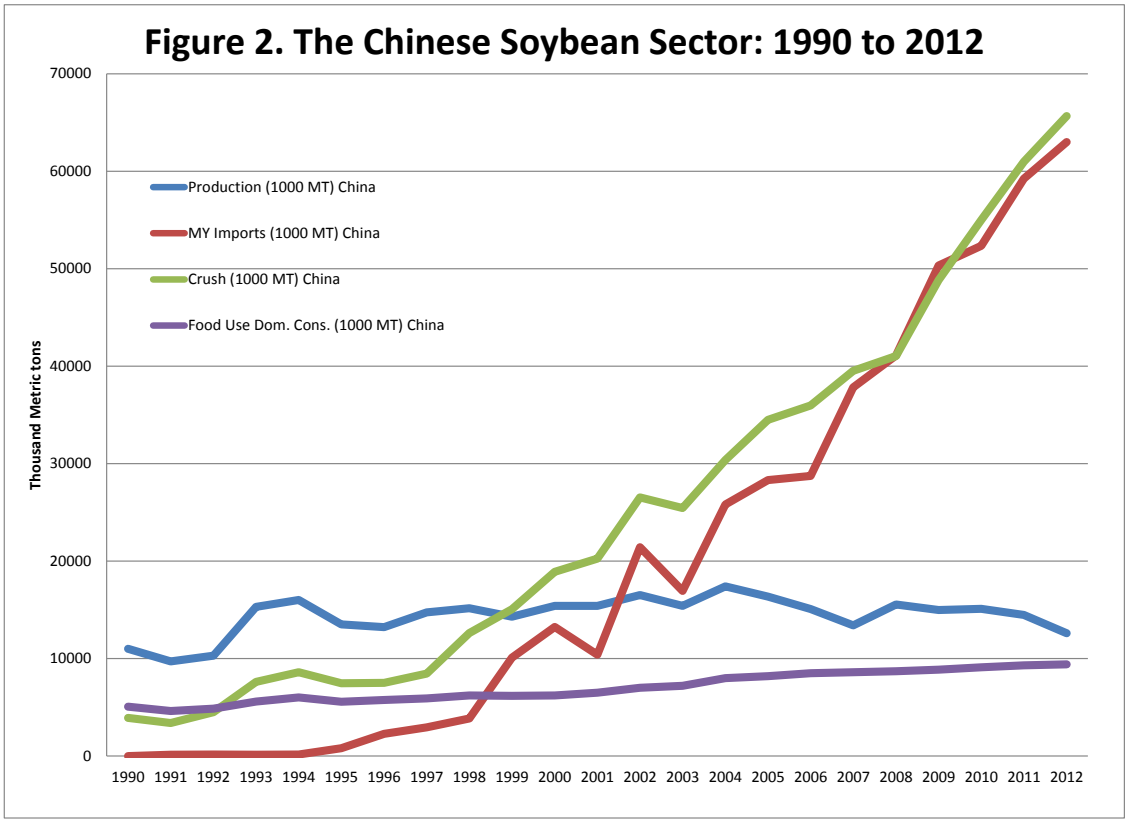


Figure 2. The Chinese Soybean Sector: 1990 to 2012
Thousand Metric tons
70000
60000
50000
40000
30000
20000
10000
0
Production (1000 MT) China
MY Imports (1000 MT) China
Crush (1000 MT) China
Food Use Dom. Cons. (1000 MT) China
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

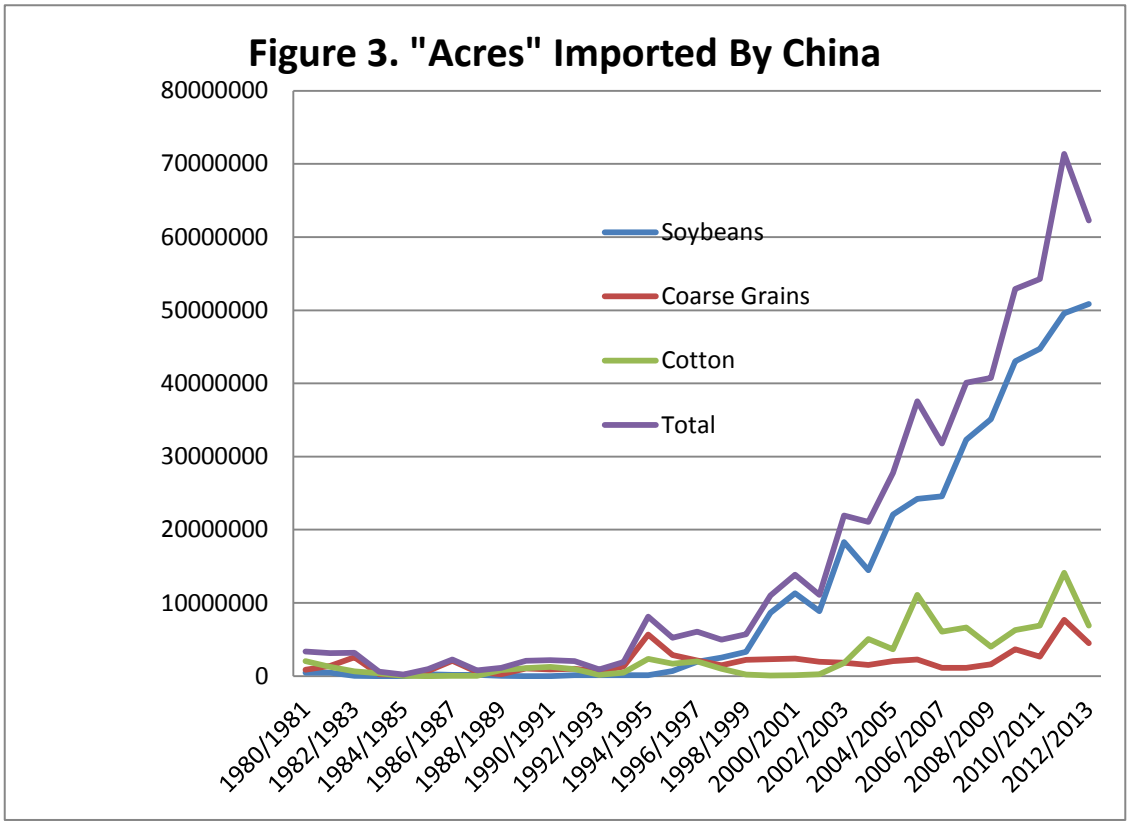


Figure 3. "Acres" Imported By China
80000000
70000000
60000000
50000000
40000000
30000000
20000000
10000000
0
Soybeans
Coarse Grains
Cotton
Total
1980/1981
1982/1983
1984/1985
1986/1987
1988/1989
1990/1991
1992/1993
1994/1995
1996/1997
1998/1999
2000/2001
2002/2003
2004/2005
2006/2007
2008/2009
2010/2011
2012/2013

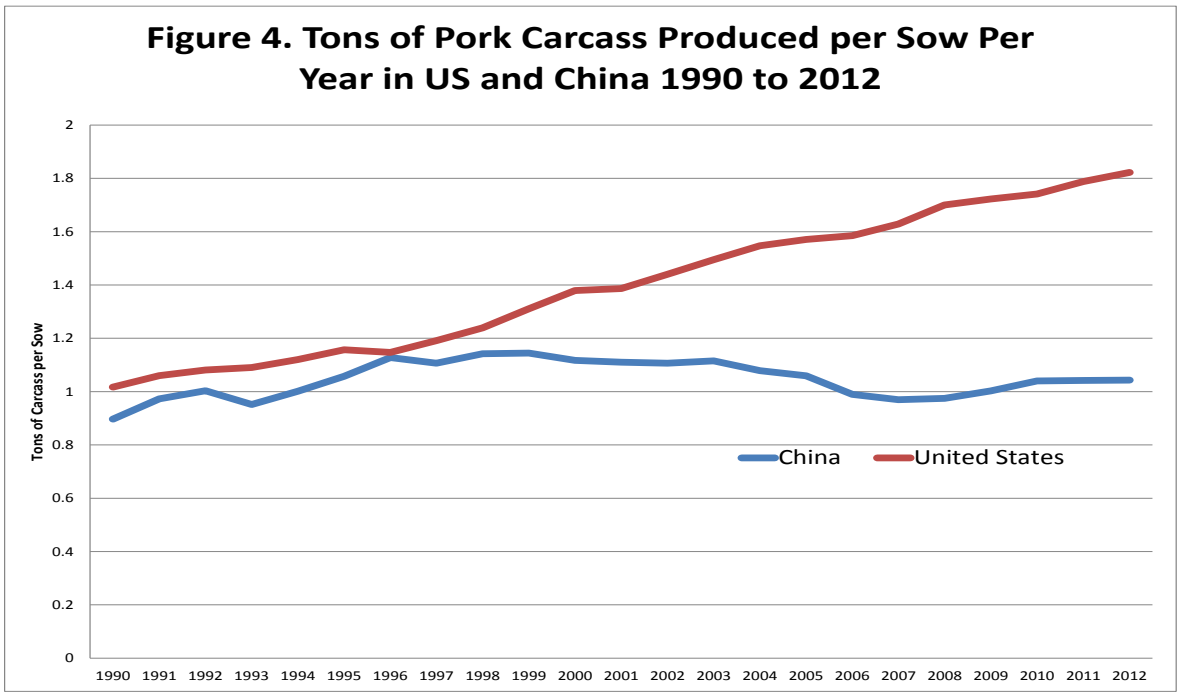


Figure 4. Tons of Pork Carcass Produced per Sow Per Year in US and China 1990 to 2012
Tons of Carcass per Sow
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
China
United States

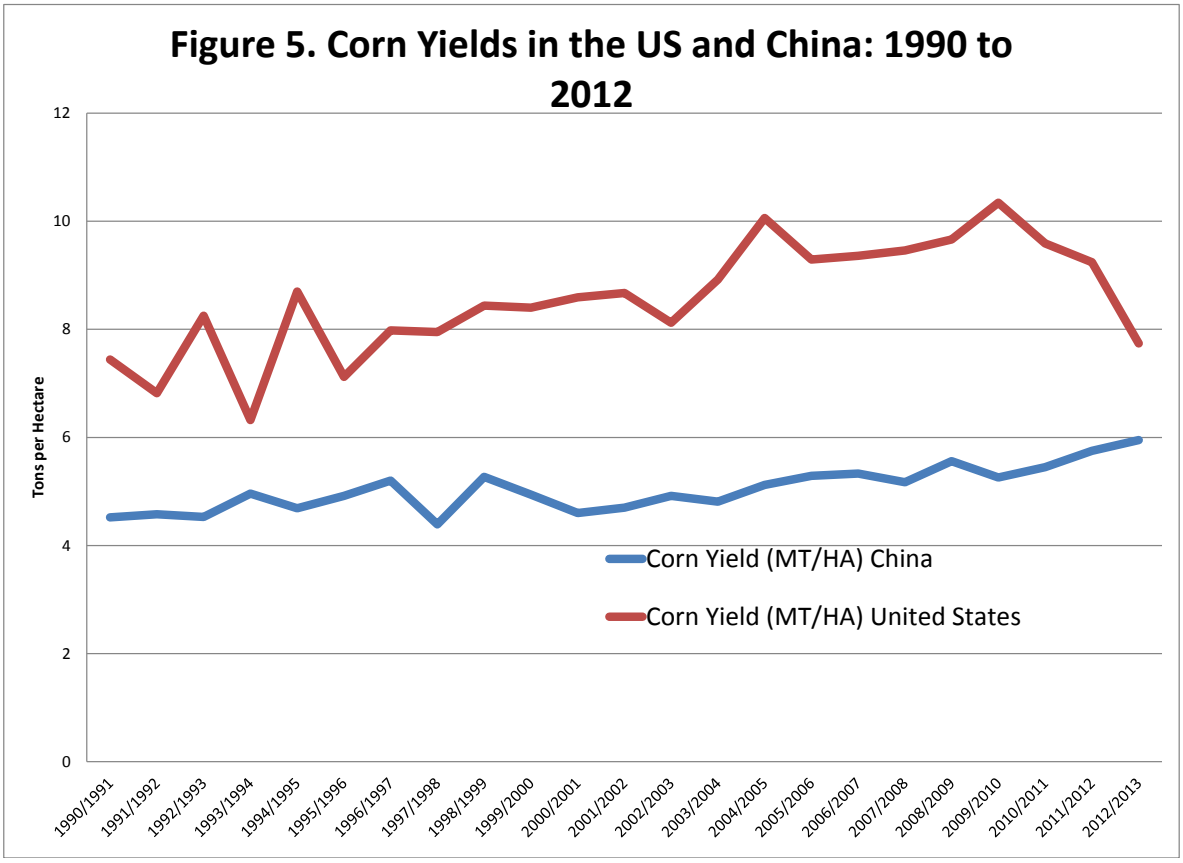


Figure 5. Corn Yields in the US and China: 1990 to 2012
Tons per Hectare
12
10
8
6
4
2
0
1990/1991 1991/1992 1992/1993 1993/1994 1994/1995 1995/1996 1996/1997 1997/1998 1998/1999 1999/2000 2000/2001 2001/2002 2002/2003 2003/2004 2004/2005 2005/2006 2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013
Corn Yield (MT/HA) China
Corn Yield (MT/HA) United States

PANEL I QUESTION AND ANSWER

HEARING CO-CHAIR SLANE: Thank you all for the great testimony. We've got some questions. I'll start with Commissioner Wessel.

HEARING CO-CHAIR WESSEL: Thank you, gentlemen, some for your travel, and all of you for your testimony. I've spent a good bit of time out in Iowa so I'm a great fan of the state. It's not always so much fun January or August, but the rest of the year, it's a joy and a beautiful day out. So thank you.

I have a lot of questions, but let me, Dr. Hayes, let me ask you a question based on your testimony and what you just said a moment ago--your written testimony and your oral testimony. You talked about the evolution of Chinese agriculture. Now that there are more people moving from agriculture to the cities, you will lose some arable land or what they qualify as arable land.

What does that do to yields if they at the same time are not allowing genetic modifications and all the other things we do to enhance yields here? They have a 95 percent goal in terms of self-sufficiency, which they do in certain crops. Are they going to be moving to factory farms in terms of pork and those kinds of things? How do you see their agriculture evolving? What do you see our opportunities and sort of the sweet spots for American agriculture going forward?

DR. HAYES: Thank you.

First, on the loss of land, the Bank of America has calculated what that expansion is, and I give it in my report, but it's like one or two percent of their land base every year is being used in this magnificent expansion of the cities, and almost by definition, the cities are on the best land because the people didn't survive in the desert so that's the best land being utilized.

HEARING CO-CHAIR WESSEL: Right. But I'm also talking about them making six stalks of corn among a small crop of rocks because they do it by hand. When you move towards mechanized agriculture, you lose all that.

DR. HAYES: That's an excellent point. Right now they have a very low planting density for corn because if you're going to weed by hand, you need to be able to get in among the stalks. What they need to do is to move to mechanized corn, and they're doing that. What they'll do is they'll go to each farmer and say we'll give you rent for your land, we're taking it away from you, and in return we're going to mechanize it.

The problem that they face is that the corn varieties they have are not ones that are suitable to that. The corn varieties we have in Iowa are being developed to have high yields and be very close together. So the obvious solution is for them to work with our genetics companies to get the genes they need. The trouble is that the strength of property protection in China is very weak.

The only property I've ever seen them protect-- intellectual property--protect effectively is the Olympic mascot. That was a good one, but otherwise it's not, and our companies have done research showing them that if they would just protect the intellectual property with the same effectiveness as the Olympic mascot, they could automatically increase their yields by 20 or 30 percent, but it's

just not happening.

The number one company that we were with on the trip, one of the executives told me of somebody stealing their technology and running away, and the response of the government was do you want to stay in China? Because if you file a case against this individual, you're in trouble. So it's a bad situation, and it's to their detriment, not to ours.

HEARING CO-CHAIR WESSEL: Let me as also a follow-up to any of the panelists, when I first spoke, I talked about changing both quantity and composition. Part of that is not just the product concentration but the value addition. So as I understand it, with soy, they will accept raw soy, but they won't accept crushed soy.

What kind of opportunities do you see in agriculture if we are able to both do the basic commodities, as well as move up the food chain, no pun intended?

MR. NORTHEY: I certainly think there should be opportunities there. They have been very protective, and right now in the soybean crush industry, they have about 50 percent, somewhere between 40 and 50 percent of their capacity is unused. So they have overbuilt. They provide some incentives for that to come there rather than be done here. It would be wonderful to be able to send products over. They happen to be a country that needs both the products. So we would need to send both over so there's not the same competitive advantage as if we're going to a market that only needs one of those, and we send the rest of it to another market.

So it would be advantageous to be able to do that, certainly, I think on the meat side as well, to be able to find those right products, to be able to go into that market with hogs from the U.S.

Now the challenge is, even as big as Iowa is in hog production, we're tiny compared to the hog industry/the pork industry in China. Half the world's hogs live there. We have 20 million hogs at any one time in the U.S. There's 450 million hogs in China. And so the scale of being able to impact that, we don't need much of that to have a significant impact. We should have some of that, but we're not going to capture large percentages of that. But small percentages could make a big difference to pork producers in the U.S.

HEARING CO-CHAIR WESSEL: And if we have a time for a second round. But if we had a certain market, we might expand capacity here to help their needs.

MR. NORTHEY: Absolutely. And then, as well, back to the composition, as Dr. Hayes pointed out, there are parts of the pig that are of much lower value here--its ears, its feet. Those without that demand from China are sometimes worth almost nothing, maybe costs you to get rid of, get rid of those products, but if those can go there for some value, it doesn't have much of an economic impact in an industry of 450 million pigs, but it certainly has an impact of profitability here.

And we saw that recently as the rules changed in March about being

able to have third-party audits around ractopamine and that prevented those products from going. That immediately dropped the hog price, as mentioned, maybe $10 a pig on 30 million pigs a year in Iowa. It's real money--$300 million a year impact if it's annualized.

HEARING CO-CHAIR WESSEL: Thank you.

HEARING CO-CHAIR SLANE: Commissioner Reinsch.

CHAIRMAN REINSCH: Thank you.

I have a question for Dr. Gale, but, first, Dr. Hayes, maybe we can come back to one thing you didn't have time for with Commissioner Wessel's question, which is the sweet spot question, and Secretary Northey kind of touched on that. Are there other areas that you see as opportunities near term?

DR. HAYES: Those--I would agree with Secretary Northey--it's those pieces of the carcass that they really value and that we do not. Just imagine if you could take the half of the carcass that we do not use and have a price for that equal to the price in China. That would mean that the value of the half the American consumer likes, the break even cost of producing that would go down by half. It's an unbelievable opportunity.

CHAIRMAN REINSCH: Okay. Thank you.

Dr. Gale, I want to pursue one of the comments you made that I think will be a theme in subsequent panels too, which is self-sufficiency, which is something you referred to. It seems to me a lot of what's driving their policy is a desire to be as self-sufficient as they can in this area, and that leads them down some paths that complicate their lives as well as ours.

The first question I have is are they different in that regard than any other country, or do we all pursue essentially policies of self-sufficiency in agriculture?

DR. GALE: China seems to have a strong preference for self-sufficiency which may reflect the heritage of being a country of peasant farmers who live off the land and are themselves self-sufficient, and they view it as it's a very nuanced notion which they view themselves as being under threat from if they become reliant on imports.

First of all, they argue that their demand is so large that they say the world market couldn't possibly supply the volume that they would need if they began to import. That's one of the arguments they present.

They're also worried about becoming exposed to the effects of volatile prices in the world market. They're afraid that they'll have no control over prices if they become reliant on imports.

They're also worried about domestic industries being wiped out by specifically multinationals. In one industry after another, there's warnings about that Chinese industries will be wiped out by multinationals. They always give soybeans, soybean crushing as the example. So in the Chinese news media, there's often a lot of rhetoric, a lot of alarmist rhetoric, about foreign plots to wipe out Chinese industries and the threats to food security.

One interesting example is cotton where they've maintained a very high

price support over the last two years, and the Chinese explanations in Chinese literature are that they want to maintain a certain level of cotton production, and if they don't support the price, given the current environment of rising production costs and opportunity costs of producing cotton, they're afraid that their domestic production will collapse.

So they're spending probably literally billions of dollars to maintain this price support just so they can maintain a certain level of self-sufficiency in cotton, and it's having some very negative effects on the Chinese textile industry, which was one of the country's darlings when they entered WTO a decade ago, and now the Chinese textile industry's competitiveness is being undermined by this high cost of cotton that they're having to pay for, and it's also attracting imports and substitution of chemical fiber for cotton as well.

So this is an example of how far they'll go just to maintain self-sufficiency no matter what the cost.

CHAIRMAN REINSCH: But how are they--are they different from anybody else? I mean how are they different from India or from Brazil or pick a country? Are they unique or more effective or less effective?

DR. GALE: I think every country has self-sufficiency and a food security objective. India is very similar in having the same kind of objectives although India hasn't gotten to the point where it's as big of an issue as it is in China.

But China does have, I think, probably a more nuanced and widening set of objectives that are pushing this self-sufficiency policy, and it's just a single issue of producing all their food, but it's also what they call industry security, the kind of issues that I mentioned earlier, about protecting their domestic industries, and so there's a widening set of objectives and interests that are all reinforcing this self-sufficiency and protectionism.

CHAIRMAN REINSCH: Thank you.

HEARING CO-CHAIR SLANE: Commissioner Bartholomew.

COMMISSIONER BARTHOLOMEW: Thank you very much, and thank you, gentlemen, for appearing here today.

As the graduate of a midwestern land grant university, I'm well steeped in the importance of the farmers here in America's heartland, both in feeding the people in this country and in feeding people around the world. I mean our farmers have led that.

I'd like to enlarge, as we're going to be hearing from different industries throughout the day, but to just get your views on a bigger question, which is, as I look at this, and particularly look at soybean growth, is planting to what I'll call "chase the China market" displacing other crops here in Iowa?

MR. NORTHEY: You know I think it's really economics driven. So I don't think any farmer is saying because China is going to buy more, I'm going to plant more. They respond to the price. And the price shows that the profitability of soybeans compared to other products, not so much in Iowa because we're using all our land here generally for corn and soybeans, but especially on the edges of

the corn belt, as you look to North Dakota and South Dakota and some of the places that maybe were traditionally wheat areas, and soybeans compete very well, both because we have new technology, but because we have prices that are reflective of that demand from China.

So, yes, there is some. I would argue that's a good thing generally because that is providing more opportunity for those producers.

COMMISSIONER BARTHOLOMEW: Right. Good for the farmers. If we bring the issue of food security in, what I just wonder is, is this going to have an impact on the ability of people to get access to sort of basic foodstuffs? Dr. Hayes, shaking your head.

DR. HAYES: First, China imports a lot of its soybeans from South America, and there is on tap land resources down there. There's an environmental impact when we bring those land acres in. So a lot of the soybeans that are grown for China are actually being grown in South America. What we're tending to specialize here is corn production. So it used to be Iowa was corn, then soybeans; now it's corn, corn, soybeans.

COMMISSIONER BARTHOLOMEW: Yeah, but with all due respect to Iowa, I mean the growth of corn for ethanol has made it harder for people in many places in the developing world to be able to afford the corn that goes into food. So it's just a bigger picture question I have is if it's not soybeans that are being grown but other crop plants--and, look, our farmers have every right to make money and to make as much money out of this--I'm just curious about the bigger consequence on food security in the world.

MR. NORTHEY: It's a real challenge to try and look at the big pie and figure out the impacts on to individuals in different places. I'd argue certainly what prices have also done, both here and around the world, is higher prices allow greater production, and so although some of that production is going places, it wasn't going to China, it also increases incentives for all farmers everywhere, including certainly overseas, the Black Sea area, other places around the world. There's new efforts in Africa to be able to increase production, too. Those efforts weren't there when we had a $1.50 corn; they're there when we have $6 corn.

So although it's easy to say these prices limit some people's ability to buy, they certainly do create more production as well. So it's a balloon that you push in one place and you find popping out another place. So it's harder to make those direct kind of comparisons because China is buying more than they used to, suddenly somebody else loses the product that they used to have.

COMMISSIONER BARTHOLOMEW: Dr. Gale, any observations on it?

DR. GALE: Well, I think the world in general has a surprisingly large capacity to supply what's demanded when the price is right, and I think we've seen that. We thought about five years ago when we had a world food crisis, nobody thought that prices would ever come down, but within months they came down like a rock. And the last, in response to the high prices resulting from our drought last year, there's been expansion of production all over the world.

I think what I'd like to emphasize is I think U.S. producers say that if China will be a stable market, they will figure out how to supply it, and one of the problems is the instability and the unpredictable nature of China's demand, and that's in the pork report that I put out last year.

One of the points I tried to make is that China's demand for imports tends to go with their cycle in hog profits, which right now China's hog producers are losing money, and they tend to shut down the market, shut down imports when they're in the down part of their cycle.

So this unpredictability and uneven enforcement of regulations and standards creates unpredictability that kind of restrains this ability from supplier countries like the United States to make plans about expanding to meet this demand, and as long as that is uncertain, that will restrain this process of producers making plans to expand, as well as countries like the United States facilitating this through environmental restraints and other regulatory issues that are becoming issues as we supply more to China.

COMMISSIONER BARTHOLOMEW: Thank you. If there's a second round, I'll have another question.

HEARING CO-CHAIR SLANE: Commissioner Tobin.

COMMISSIONER TOBIN: Thank you very much, gentlemen.

You all spoke about the pork product problem because it seems ripe and ready for change. Let me direct my questioning to you, Secretary Northey.

You talked in your testimony about market access issues, first having to do with pork products around ractopamine. And that made me curious while reading, so I looked up information about the checmical and it turns outthat about 80 other countries in the world do not want ractopamineadded to the pork. The United States and Canada and a couple other countries are fine with it. They felt the problem has been with the dosage of the chemical if I understand correctly.

Is there any thought since the Chinese market is growing that if the customer is right, that we might want our pork producers to raisepork without ractopamine as a way to serve that market? Are there alternatives to ractopamine? Is it a political decision they're making really, not looking at the chemistry or the scientific data? Having been a businesswoman I believe that the customer is not always, but often, right. C

MR. NORTHEY: Good question. And Dr. Hayes can help in some of these pieces as well, but my understanding is that China has not allowed ractopamine to be able to be used in its domestic production, and that has been true for a long time, and what they've allowed then is a way to be able to test products coming in, and so we had to show that there was no residue and no improper use of ractopamine here, and those products could get in that country.

Now they changed the regulations around how you must prove that you don't have any problem with ractopamine, that you have a third-party audit, that creates an extra level of issues in trying to be able to satisfy the changes, not that they've outlawed it there and they outlaw it from other places. They certainly accept pork from other places as well, but the way that they have changed their

certification of imports has significantly changed.

We certainly would work with them to understand how we avoid anything that would cause a problem that they believed that there might be with the product although we and many other large pork-producing countries do not believe there's a problem.

The other issue around producing it specifically for that market, much of the product that we go is a small part of the pig. So we send ears and feet and other pieces, maybe some primal cuts as well, but we send very few whole hog carcasses, whereby if you were to increase the cost of production here significantly by not being able to have that product, you could not recover the increased cost of that production with the small amounts of products that we send from each of the pigs over there.

So it's not that we're sending whole carcasses. It's that we're splitting that pig up, and so we only have a few dollars' worth that we're sending there, and that wouldn't carry the increased cost of not being able to use that product here.

COMMISSIONER TOBIN: But over time, I suppose that being an economist, you could even model this.

MR. NORTHEY: Yes. And certainly we would expect things to change over time. One of the challenges as well for domestic producers is predictability. So, as was mentioned, we don't know what that market is going to be. We may have access to whole hog carcasses down the road, but again do you make a change in your livestock production on the hope that will happen and that the rules won't change?

COMMISSIONER TOBIN: And given the strength that the dean mentioned and that our chairs have mentioned of agricultural trade with China and that the President of China talked about--this might be an area where we could move forward, it seems to me.

In high tech, which is the field that I worked in, we had OEMs, other equipment manufacturers, and you could have some type of structure that would address China's problem.

MR. NORTHEY: I think there is. My understanding, and Dermot was on the trip, but my understanding is our governor made some mention to this issue to the president when he was over there. There are other discussions going on around this issue of saying we understand your concern. We want to work through a process where our product is--

COMMISSIONER TOBIN: Good.

MR. NORTHEY: --considered safe with you, but we still want it legal to be able to use over here. We just want to make sure that we understand that and that can work within our system. I would hope that through our desires to work together in agriculture, and the need for both of us to have that happen, that we bring folks to the table. We'd hope the same thing around biotech approvals.

We have a very slow process with biotech approvals, actually a stop process now. There are some work groups that are working although that hasn't started to move forward. We would hope that extra connection of agriculture

would give us a better chance to be able to move through some of those, too.

COMMISSIONER TOBIN: Excellent. Thank you.

Dr. Gale or Dr. Hayes, anything further?

DR. HAYES: Real quickly, you've heard that the Chinese do not want to rely on us.

COMMISSIONER TOBIN: Yes.

DR. HAYES: Or the world because they're concerned about price volatility. And we're frustrated with them because when they buy, they drive our prices up, and when they're out of the market, they drive them down. So both sides could benefit from some kind of legally-binding, long-term forward contract where we produce specifically for them, and they agree to buy, and where our government agrees not to cut them off if they misbehave in other areas, and their government agrees to take the price hit if they decide to cut them off.

And you've got a panelist coming up who's an internationally renowned futures market economist, and that's a great way to move forward with all of this, and that's Professor Colin Carter from Davis.

COMMISSIONER TOBIN: Thank you.

Dr. Gale.

DR. GALE: I'd just point out that ractopamine, my understanding is that it was developed as a safer alternative to clenbuterol, which was originally what was used, which is somewhat more dangerous. Ractopamine is a safer alternative.

Another point is that even though China banned use of clenbuterol, ractopamine, these beta-agonists, about more than ten years ago, they were still widely used in China by producers, and there was a large scandal in 2011 when China's central TV exposed the widespread use of clenbuterol mainly among Chinese hog producers. There's been a crackdown since then, but nobody knows how widely used it is.

So this brings up an issue of a much tighter enforcement of standards and regulations for imports than in the domestic market, and that's an issue that the Chinese officialdom is also struggling with, is how to actually enforce these things in the domestic market.

COMMISSIONER TOBIN: Thank you. Thank you.

HEARING CO-CHAIR SLANE: One of the things that concerns the U.S. government is instability in China. When you couple the enormous demand that is growing for meat and meat protein, the restriction of tillable acres, their severe water problems, what are your thoughts on how the Chinese government is going to deal with this issue? And contrasting that with their obsession with self-sufficiency and food security?

DR. GALE: I think this could play a major role. Even though China is not a democracy, public opinion drives a lot of the central leadership's decisions, and the threat of unrest and dissatisfaction is one of those factors, and we've seen a stream of, first of all, high prices, especially for meat products. Beef, in particular, is very expensive. Pork prices have been going up steadily for about

five years.

And in addition to this, we've had a series of incidents related to agriculture, livestock agriculture, going back to the melamine adulteration of milk in 2008, which was the first major one that really got people's attention. There was the clenbuterol issue I mentioned in 2011, and then this year there was an issue with the exposure of abuse of pharmaceuticals in chicken production last fall.

And then the thousands of pigs that were floating in the river in Shanghai, and now there is the threat of H7N9 avian influenza that's also still mysterious but seems to be related to poultry, commercial poultry production, and these things are all getting the public's attention They're shining a spotlight on some of the problems with the livestock industry, and I think this may be one of the factors that may drive the leadership to acknowledge that the production of livestock has really grown beyond the carrying capacity of the country, and that we need to think about how we can develop stable channels of import, the kind of thing that we've just been talking about, how China can facilitate a stable source of imports to supply these demands.

HEARING CO-CHAIR SLANE: Anyone else?

DR. HAYES: Just real quickly, last, there were some months when we exported more livestock to China than to any other country. So the question is what was different about last year and this year? And the answer is that at the beginning of last year, they had extremely high meat prices. They joke over there that the CPI means consumer pig index because if you spend 40 to 50 percent of your income on food, the thing you want to do is to upgrade to meat, and when that goes high, the Chinese government senses insecurity.

So in a crude way, they're already willing to acknowledge and to buy when they're desperate, but it's frustrating for us because right now we're closed from that market for a technical barrier.

HEARING CO-CHAIR SLANE: You know they've recently announced that they're going to double the production of milk over the next five years, and they can't grow enough corn to feed the stock now.

Secretary Northey?

MR. NORTHEY: I think there are some parallels in the way that they look at things to other countries. You look at Japan, and Japan certainly keeps track of its self-sufficiency rate, but the way that they buy is they are long-term buyers. They're one of the quietest buyers out there. They still are the largest corn buyer, the second-largest pork buyer, the second-largest soybean buyer, but they buy in a very consistent basis. It's very predictable.

Our producers probably could almost predict what they're going to buy three or four years from now, and a couple years ago as we were trying to address some of the self-sufficiency concerns within Japan that were coming up internally politically, we talked about trade being a part of self-sufficiency.

Dependable predictable trade is a way to be able to provide product for consumers. We haven't reached that point with China yet. I would argue we have another advantage as well in trading with them. Because of these internal food

safety issues that they've had, sometimes they trust imported products more than they trust some of their own products, and so they're looking to New Zealand and other places for milk and some of the connections outside.

So I think we have an opportunity to be able to leverage that. Now that may seem like an internal political concern, stability concern, to their producers there, but as they're transitioning their producers, some of their agricultural producers, to urban areas, I think it offers an opportunity to be able to say dependable, predictable, good food safety-based international trading rules would cause them to be able to depend on the United States and other countries in addition to the real challenges they're going to have to produce internally. They can't have the resources to be able to do it internally. They need resources from outside to do that.

HEARING CO-CHAIR SLANE: Commissioner Shea.

VICE CHAIRMAN SHEA: Thank you very much for being here. It is a beautiful building. I had some delicious Iowa corn last night and pork, and some of my colleagues joined me in that. So I'm glad we're talking about it today. Can I take it down from 30,000 feet and maybe drill down really low and let's talk about corn, and maybe this is for Secretary Northey.

How does trade with China, between Iowa and China, on corn work? Who are the actors that you're dealing with? Who specifically purchases the corn? How does it get to China? How does it get distributed within China? Could you just give us a little primer, and be specific about the players? Do they call you up? Does someone from the government call you up and we need, you know, "x" number of bushels of corn this year? How does it work?

MR. NORTHEY: The comparisons between corn and soybeans are kind of interesting. So soybeans have really been marketized. They allow folks to be able to import soybeans when they want to import soybeans. So that really is company to company, and when Vice President Xi was here last year, there were several contracts signed between Chinese companies and U.S. companies. To import corn still into China, you need a license to be able to do it, and so there is a government influence. Some companies are either--

VICE CHAIRMAN SHEA: So private U.S. companies working with Chinese state-owned enterprises, large enterprises, or?

MR. NORTHEY: Some of them are state owned. Certainly they are companies that are doing the importing, but that company in China has to get a license from the federal government to be able to make that purchase. Now whether that will change over time, it seems to be a sensitivity that they want to be self-sufficient in grains, they want to control their importation of grains, but they have decided that they don't need to be that way with soybeans because there is competition out there. They've decided to give up on being self-sufficient in soybeans. They have the U.S. and South America competing. They don't feel vulnerable.

They still feel vulnerable yet to the U.S. at some point deciding we're not going to export to them or something.

VICE CHAIRMAN SHEA: On corn?

MR. NORTHEY: Of corn. Of corn and rice and wheat, those grains that they want to maintain with self-sufficiency. So right now for U.S. companies, they're answering the phone. It's not government to government. It's U.S. companies answering the phone from Chinese companies, but those companies have had to get a license to able to make--

VICE CHAIRMAN SHEA: Is it a large pool of Chinese companies? Are we talking 50 customers or ten customers or who?

MR. NORTHEY: You know, I don't know that. I don't know that as well as I should. I'm sure there are some commercials maybe that are here that would. I think it's a much smaller pool than it is in soybeans or cotton, and so it's a much smaller pool, and some of those have significantly larger opportunity to be able to do it than others. Still, the amount of corn that's going over there is very small. The expectations are that it will increase significantly as they run out of feed for those increasing numbers of livestock that they're going to need to have to be able to satisfy the meat demand.

We were there in March, and one of the folks that's been very active in the import side, a private trader from southern China, said he believes the Chinese imports of soybeans will grow from 60 million metric tons to 80 million metric tons over the next five years. That's out of both--

VICE CHAIRMAN SHEA: Okay.

MR. NORTHEY: And the imports of corn will grow from really next to nothing right now--more DDGs right now, but very little right now in net imports of corn--to 20 million metric tons. That's a billion bushels in our parlance over here.

VICE CHAIRMAN SHEA: You said something very interesting, Mr. Secretary, that they've sort of given up on trying to be self-sufficient on soybeans. Do you think that's sort of a prelude to sort of throwing your hands up in other products and just work with the global markets?

MR. NORTHEY: I think certainly it was a recognition that they were not going to be able to produce their own soybeans, and in fact we visited some soybean plants in southern China, and they said they used to get a lot of local soybeans. There's no soybeans grown anymore in those areas. They are importing all the beans into those soybean processing plants.

They all believe that in time they're going to be importing corn in addition to domestic production of corn. They're the number two world supplier of corn. We produce 12, 13 billion bushels. They produce seven, eight billion bushels so they're a big corn producer, and they will be a for long time, but that still won't feed all the livestock needs that they have. They're going to need to be able to import more.

So I sense that they're moving that way. In its odd way, I think we need some of these other corn producers to be players. They've reached out to the Argentinas of the world and some other places. If they sense they're not beholden just to the U.S., we may get two-thirds of the market. But they need to have

security that they're not just at risk of political issues here causing them to lose access to the international corn markets.

We actually need competition to increase--

VICE CHAIRMAN SHEA: Their sense of security.

MR. NORTHEY: Yes, their sense of security.

VICE CHAIRMAN SHEA: That's very interesting. I know my time is up, but corn is primarily overwhelmingly just livestock feed in China; right?

MR. NORTHEY: Correct.

VICE CHAIRMAN SHEA: It's not a staple.

MR. NORTHEY: No.

VICE CHAIRMAN SHEA: Do you see any movement in the Chinese diet for interest in eating corn?

MR. NORTHEY: No, and even here, the amount of corn that's used for human consumption is, you know, a tenth of a percent of the total corn that's produced here for livestock feed or for ethanol production or for other wet milling that's happening, and that is the way that it is generally worldwide.

VICE CHAIRMAN SHEA: Well, I think corn is delicious anyway.

MR. NORTHEY: Yes, I agree.

VICE CHAIRMAN SHEA: Thank you.

[Laughter.]

HEARING CO-CHAIR SLANE: Commissioner Talent.

COMMISSIONER TALENT: Thank you, Mr. Chairman.

I too want to thank you all. I really thought your written statements as well as your oral testimony was very helpful, and I'll be brief because we have a lot of other panels.

Dr. Gale, you said that China has, by and large, complied with its WTO obligations, at least in the letter if not the spirit, and I don't know how much you can say given what the government's official policies in this are. Our staff in this briefing memo said that they are also over subsidizing not just cotton, but they're over subsidizing wheat farmers and corn farmers. Would you care to comment on that, if you can?

DR. GALE: Yeah. I'll have a report on this coming out in June, hopefully, where I've been looking very closely at their subsidy policies. Their strategy on grain direct subsidies is to carefully classify them as being--there are two main subsidies, well, actually three main subsidies for wheat.

One is a direct payment to grain producers, and in the past, the Chinese have claimed that that's a decoupled payment that is not related to production though it's questionable whether that's really true in practice. But this payment is very small and has probably minimal effect on actual production.

The bigger payment is a payment that is to compensate farmers for the rising cost of inputs, mainly fertilizer and fuel, and that payment has risen substantially over time, and that constitutes most of the subsidies to wheat producers as well as rice producers, and corn to a lesser extent.

And the government has urged local authorities to link that to

production. So it's not really decoupled. However, it's not for a particular commodity. It's for, quote-unquote, "grain production," which can be a different commodity in each province.

So I think the strategy that allows China to declare this as a nonproduct-specific measure, and then nonproduct-specific measures are divided by the total value of all agricultural production when they report it to WTO. So when you do that division, it becomes a very small percentage of agricultural production when they report that to WTO.

So that keeps it below that threshold or that de minimis limit for wheat. So in past notifications, the only product-specific subsidies they reported were seed subsidies, which are, again, a very small payment that is less than one percent of production.

The other big strategy is related to price supports, which you didn't ask about, but that's another growing issue that I mentioned earlier with regard to cotton. And China has been raising price supports since 2008 each year. However, for price supports, they report them to WTO based on--the eligible quantity of production is only the amount that they actually procure under the price support program, which for most commodities turns out to be a small percentage of total production.

So this strategy also keeps their support under the cap, and the exception again is cotton where because the purchase is for such a large proportion of production, the value of that price support for cotton appears to have gone over the limit the last two years.

COMMISSIONER TALENT: Thank you. I may have more, but I'll wait till another round.

HEARING CO-CHAIR SLANE: For a second round, Commissioner Wessel.

HEARING CO-CHAIR WESSEL: Thank you, gentlemen.

Let me take it down to the family farm level here in Iowa and try and understand that years ago, there was a concern that the retail dollar was not being effectively distributed throughout the food chain, that if prices went up at the retail level, the share that a farmer got was limited.

For all the participants, but especially Secretary Northey, can you describe the changing nature, if there has been, of agriculture in Iowa? Has it moved from what was the family farmer to larger field operations, co-ops, whatever, and as it relates to the final sale, because I assume the contracts are being done through larger agribusinesses, the trading companies, ADM, Cargill, and others, how does that distribute down to the ground? How much is a family farmer actually sharing in the bounty of these expanded sales?

MR. NORTHEY: A great question. In Iowa, we're still about 98 percent family farm operated. Within the crop side, almost completely. There are just really nobody else out there, and in fact we actually have some laws against corporate ownership of farmland, and that limits things, as well as--

HEARING CO-CHAIR WESSEL: So the two percent is pork and IBP?

MR. NORTHEY: Yeah, it would be on the meat side. It would--yeah, pork production, egg production in some cases.

HEARING CO-CHAIR WESSEL: Right. Okay.

MR. NORTHEY: And, again, small parts of those as well, but of total, of total agriculture in Iowa, it's a very small part. Now, many of these farms are much bigger than what their parents or grandparents were.

HEARING CO-CHAIR WESSEL: Right.

MR. NORTHEY: And so you have farms out there that maybe they grew up on a 500 acre farm, and now they're farming 2,000 or 5,000 or more acres, and, again, the value, having gone up, you're talking about multiple millions of dollars in a family operation with a father and a son and a daughter that are part of this operation. So you have farms that have greatly expanded. They're still family owned. The folks that will be out there driving their planters across Iowa this next two weeks will be family farmers.

On the livestock side, we've seen some more concentration, especially around hogs and eggs. Most of those still were family originally. Some of these still are family owned. Although we have a lot of the folks with hogs on their farm, they're actually contract production for somebody else. Again, that's market driven. If the contract is not good enough, people don't put up a barn. If it's good enough, then there're plenty of folks to be able to do that.

As far as the way the dollars come back to the farm, most of our crop is sold--our corn and soybeans are sold to a buyer or used by the farmer on a spot basis. So we don't have a contract. We can decide when we're going to sell it, but it's really the market prices that set that, not a long-term five-year I'm going to sell corn for $4 for the next five years. I'm going to sell at whatever the market is. I could decide to do that now for the next five years. But most of the folks do it after production--

HEARING CO-CHAIR WESSEL: But where's the risk? And I understand they're selling it to the local elevator, et cetera.

MR. NORTHEY: Uh-huh.

HEARING CO-CHAIR WESSEL: But again, for the larger contract, China is going to a 2,000 acre farm here and saying we want to buy yours.

MR. NORTHEY: Right.

HEARING CO-CHAIR WESSEL: They're buying it on the open market or maybe a direct contract with one of the larger agribusinesses. They're taking a lot of the risk, of course, and some of it they're hedging with contracts, you know, futures and everything. How does that distribute down though? Is the relationship, the dollar that the farmer is getting the same now or is that being squeezed as producers are being squeezed everywhere?

MR. NORTHEY: You know we've seen such a change in prices because we were short of crop. We had new buyers who came here as we had new ethanol plants. We have 41 ethanol plants in Iowa. They buy about 40 percent of the corn production in Iowa. That produces a lot of DDGs.

HEARING CO-CHAIR WESSEL: Right.

MR. NORTHEY: That replaces a lot of the other corn that used to be direct fed to livestock or exported. But those are new markets. So we've seen an increase in farm gate price from 2006 it averaged $2 a bushel to this last year that was north of $6 a bushel, probably close to $7 a bushel.

So we've seen an increase in price. Now the percentage of pork or the final product in corn is very infrequently a final product.

HEARING CO-CHAIR WESSEL: Right.

MR. NORTHEY: Maybe it's made into chips or maybe into pork or beef or eggs or dairy products. So it's hard to do that with corn. With some of our other markets, there is certainly some concerns. Some of the pork side, there's some concerns, depending on capacity, to be able to process those animals, whether that is getting all the way back to the farm. I think it's unrelated generally to China per se. They're another buyer. They get it bought if they pay as much or more than anybody else. They don't get it bought if they pay less.

Overall, this has been a relatively profitable time for agriculture, unlike we have seen in awhile. Most of us have been through other times when it's not been that way, and this has been a long-time coming, and this helped pay some bills for some tough times in the past, but the profitability in agriculture the last five years, and as I said, you know, even all the way back to 2002, a phenomenal increase.

That's why you've seen the increase in land prices because that productive tool that we use to produce that corn and soybeans is worth more because there's more profits on that land, and so it's a result of that. So I don't think you have farmers complaining as much about that as we did back when we had $1.50 or $2 corn, and we saw that margin really tight on the farm.

Right now, folks are feeling like as long as we have high prices, markets are working. If we have $4 corn six months from now or two years from now, folks may be talking about that again.

HEARING CO-CHAIR WESSEL: So production follows prices, as usual?

MR. NORTHEY: Yes.

HEARING CO-CHAIR WESSEL: Okay. Thank you.

HEARING CO-CHAIR SLANE: Commissioner Bartholomew.

COMMISSIONER BARTHOLOMEW: Thank you, and, again, this is so interesting.

Dr. Hayes, you mentioned IP theft, and that it was to the Chinese's detriment. Of course, it's also to the detriment of the people here who are losing market opportunities and also brand, and, Secretary Northey, this probably comes to you more this question.

Probably about ten years ago, I remember the Washington state apple growers telling us that what was happening was the Chinese--they knocked off the logo of the Washington state apple growers and were selling inferior Chinese apples as Washington state apples, I think not just in China but elsewhere in Asia, which really had the potential to affect their brand.

I'm presuming that you guys market Iowa soybeans, Iowa corn and Iowa hogs, and I'm wondering if you've seen any incidents where the counterfeiting of your brand in marketing these things has been used?

MR. NORTHEY: In not really the same way. Most of our products are commodity production, and so although we certainly go there to be able to market you can buy Iowa soybeans by a rail that can to go the northwest and retain that Iowa nature to the soybeans, most of our products get combined with other products, and they're buying soybeans.

They're buying soybeans for the soybean meal and the soybean oil they get, not because they think it's worth an extra dime for Iowa, although I'd argue it is, but they wouldn't necessarily.

So for the most part, we don't see that, and we're dealing with products that are grown at such a scale, and that there're not necessarily comparative advantages. In fact, as Dermot said, there're probably comparative advantages for us.

Now when you have some of those high-value products that can be done in small areas that require a lot of labor, there can be comparative advantages there, and we've seen other parts of agriculture that others would be a lot more familiar with than I have been hit very significantly, whether it's catfish or whether it's apples or I think raisins and some others as well, that have been part of that.

So there would be others that could talk about that, but we haven't seen those same pieces. Now, we'd argue they're doing some things in pork in not approving biotech traits that are certainly hurting our producers, but not because they're stealing our brand, but because they may be protecting their industry.

COMMISSIONER BARTHOLOMEW: They're stealing the research. Is that some of what's happening?

DR. HAYES: One quick comment. There's a company here called Pioneer, which is world famous for corn genetics, and they estimate that of all the Pioneer seed that's sold in China, more than half of it is not Pioneer seed.

COMMISSIONER BARTHOLOMEW: Gee. I remember, again, a lot of times, and I'm sure you see this, too, people will say things behind the scenes when you're traveling that--American companies--that they won't say publicly because of the very issue that if they do, they'll lose market share, and there was an equipment manufacturing company that noticed that at trade shows that not only were their tractors and things being knocked off, but there were entire exhibits, and even the caps and everything, all was fake.

So I mean it's an issue at so many levels, particularly because they can bypass R&D costs if they're taking the tech that's happening.

DR. HAYES: But it's to their detriment because in the long-run they do need somebody to do research on corn varieties that are specific to China, in Chinese conditions. And as long as these IP things are an issue, our companies won't do that research, and so they lose more than we.

COMMISSIONER BARTHOLOMEW: Except wouldn't it be--we'll just

use Pioneer as an example. Wouldn't it be to their detriment, both for their brand, if inferior quality seeds are being sold under their brand, and that they are spending the money to do the research, and that the theft of that research doesn't come with any cost?

DR. HAYES: Yes, it's very frustrating for those companies, and you're right. There's poor quality seed being sold under a U.S. brand, and that is a big problem.

COMMISSIONER BARTHOLOMEW: I wonder if anybody in the ag industry has quantified the lost sales because I know certainly for software, they have some sense of how much loss to our economy is happening because of that.

Dr. Gale, you wanted to say something?

DR. GALE: Yes, it's actually not just a problem for American companies, but it's coming back to bite the Chinese themselves because this is a widespread problem with counterfeit and fake substandard agricultural inputs not only for seed but also for fertilizer. I just read an article about an area where substandard or counterfeit soy meal was being sold that was I think made out of clay, and the sows were aborting and dying.

So this is directly affecting the productivity of agriculture in China, and the Chinese officials know it. Every year they send out teams to try to weed out all the fake seeds in the spring, and so it's something that's not just a problem for American companies, but it also affects, directly affects China, and it would be, if we could quantify it, it probably reduces their output by ten, 20 percent, just to grab a number out of the air.

COMMISSIONER BARTHOLOMEW: Their output.

DR. GALE: Yeah, China's.

COMMISSIONER BARTHOLOMEW: What I'm also concerned about is our lost market opportunities.

DR. GALE: Yes. But it's something that is a broad problem of intellectual property protection, and China's problems, their internal problems, will probably--they're going to force officials to try to deal with the problem for everybody.

COMMISSIONER BARTHOLOMEW: Interesting. Just one observation. You mentioned comparative advantage. For those of us who have been looking at all aspects of China trade--some of us--not all of us--have been wondering whether Ricardo's theorem is even relevant anymore. I for one wonder that. So it's very interesting to come here in a place where you can make a good case about comparative advantage. There are a lot of industries that it's not so sanguine anymore.

Thank you.

HEARING CO-CHAIR WESSEL: Commissioner Goodwin.

COMMISSIONER GOODWIN: Just as a quick follow-up, I don't know if you all have been following the Monsanto litigation that was just heard by the Supreme Court, I believe, last month, which deals with the ability of companies to extend or maintain, I suppose, patent protection, not just for innovative seeds but

also for subsequent generations of the seed. Certainly a high profile case here in the United States.

My question, a little bit off topic, is what impact would you anticipate that decision might have on international markets, particularly in a market like China with its questionable practice of IP protection and enforcement?

DR. HAYES: I'll take a stab at that. In the U.S., the wheat farmer has the right every year to keep their seed from the previous year and replant it. And as a result, the private sector is not really interested in doing wheat research, and wheat yields have been flat.

The soybean farmer has, until the Bowman case at the Supreme Court, not had the right. When they buy soybeans from one of the companies, they agree not to replant it. That's what the case is about. But because the private sector has had the incentive to do research on corn and soybeans, yields for those products has grown.

So the real issue is who benefits from taking away that restriction? And you can see that in a number of acres that are assigned to wheat every year and relative to corn and soybeans, and there's been a huge movement away from wheat and into the variety or the crops where yields are growing.

And so, in general, the producer is better off allowing somebody to have an incentive to improve their varieties every year, and unfortunately that means not having the right to replant seed.

COMMISSIONER GOODWIN: Thank you.

MR. NORTHEY: I'd say as well, in the connection with China, is they're trying to understand and figure out when and if they might allow biotech products grown there. Right now our issue with trade is that they need to license a product for import for us to be able to grow it and send it over there having the security that we know that it will be accepted, but they do not allow production of biotech, other than cotton is my understanding, in corn and soybeans, and they're concerned, in part, about the ability to compete against international companies.

I would argue that that restricts their ability to be able to respond and increase their production the way that they need to. And until they figure that out, until they figure out even the intellectual property right ability and the ability to maintain confidence that the products are not counterfeit, they will limit their ability to respond to the increased market signals that they have and the increased demand that they have for their products.

I would love for that to be a place where U.S. agriculture and government could work with Chinese agriculture and government for the betterment of both. They need some increased production. We actually don't mind some increased appropriate production with not incentivized but because of science there as well, and if we could be helpful to them moving their process of being able to approve products, of being able to maintain the integrity of those products, in the long run, that's beneficial to our companies, that's beneficial to the Chinese system, certainly beneficial to the consumers, as well. That would allow that market to grow where the protectionism right now is preventing some of that from

happening.

Now how that looks, right now we haven't necessarily walked hand-in-hand on that. In fact, we're trying to figure out how to get through and restart this approval process for biotech that's already been approved over here.

COMMISSIONER GOODWIN: Thank you, all.

HEARING CO-CHAIR WESSEL: Commissioner Talent.

COMMISSIONER TALENT: Dr. Hayes, I really appreciated your written testimony. Speculate on something for me if you would. It seemed to me reading your testimony, normally when I look at something the Chinese are doing, and it looks to me like it doesn't make a lot of sense economically, it's usually rational in terms of something else that they're trying to achieve. Okay.

And I understand all the talk about sufficiency and the rest of it, but as you point out, and actually you all have said, they're not sufficient because they couldn't --I'm talking about pork--they couldn't maintain their pork production unless they weren't importing this enormous amount of feed; right? So they've chosen the least efficient and the least rational way not to be self-sufficient.

Do you understand what I'm saying? At least it seems that way to me. Could you all take a minute and speculate as to why they would do that? I mean if they're going to be dependent, why not dependent for the actual product, for the pork, which really would be efficient? I thought, well, maybe they're trying to support jobs in the countryside, but they're moving to these huge centralized operations; they're investing in production. I don't know.

Could you speculate as to what's driving them, and, you, too, Dr. Gale, if you'd like to?

DR. HAYES: I've been puzzled by that, too. They say they're self-sufficient in livestock, but the livestock are being fed on imported products. And all I can think is that if there were a war or a trade barrier, they could eat the mothers, the breeding stock. But it would only last a couple weeks. It just seems misinformed.

I think part of it is that the higher-ups, like a lot of higher-ups in the world, they're not familiar with agriculture so they say, well, we're 96 percent self-sufficient in pork, but the fact that the protein in those animals is coming from the U.S. doesn't seem to resonate.

One other issue, that country, all the livestock is produced in a very small area. And there are trillions of human-to-bird and bird-to- duck, and there are disease issues that are coming out of that, and it's a world health issue, and, as you know, I have a cough because China every year invents a new flu and a new cold and, as one of my charts shows, the productivity of their livestock is going down. So in another worldwide area, why are we feeding unproductive diseased livestock in a place where there's an alternative? It's not rational to me.

MR. NORTHEY: And I would think as well it seems like soybeans are not directly sold to consumers. Meat is. There seems to be a political comfort with importing something that is a little more distant to the consumer while still feeling like we're self-sufficient in pork production and in chicken production and

other production, and apparently, as well, to try and grow their dairy industry to be able to meet new goals in dairy production as well.

Now, financially, over the long-term, that doesn't make sense. It's certainly a lot cheaper to import a few pounds of pork than it is many pounds of soybeans and corn that are going to feed that pork, but there's probably some domestic political issues within agriculture or certainly some of those rural areas about why they want to respond to a large number of pork producers in China that may care about that an awful lot.

The soybean folks that used to produce soybeans who are now producing corn and wheat are doing so in part because they got extra money to be able to produce corn and wheat. So they were provided an alternative. What do you do with hog production? But you certainly could grow your increased demand with some imports.

COMMISSIONER TALENT: You could be right. It's just that I'm wondering whether they're responding to this among the people or whether they're driving it among the people? Because you talk about this stuff appearing in the Chinese press. I mean we know more often than not how that happens. So anyway, it's the issue I had, I thought, and I really do appreciate your testimony. You guys have highlighted very well the irrationality, I think, even in their own terms of what they're doing.

Thank you, Mr. Chairman.

HEARING CO-CHAIR WESSEL: Commissioner Tobin.

COMMISSIONER TOBIN: I actually want to build on Commissioner Wessel's question about the family-owned farmers. You mentioned, Secretary, that 98 percent of the farms in Iowa are family-owned. I would imagine there is some conversation, if not alliance, of comparable secretaries in other states; is there?

MR. NORTHEY: Yes.

COMMISSIONER TOBIN: Could you give us a sense of that family-owned business and where it is today in 2013 from the perspective of a couple of other states?How different or similar is Iowa to the other big agricultural states?

MR. NORTHEY: I just would have an impression. I don't know those numbers from other places, but certainly in places you have large fresh fruits and vegetables, some of those are family-owned, but they look very corporate-owned, and for many different reasons, sometimes because of the risk to food safety and the desire of a final customer to be able to deal with one company rather than 20, and so there are many different reasons why some of those industries have concentrated more than agricultural production in Iowa has.

So I know it varies. I don't know what numbers would be other places. Still the bulk of agriculture in the country is family-owned. Again, some of those are significant production organizations with outside employees in addition to family labor, but it's still mostly that way around commodity production in the Midwest. You would say mostly the corn and the soybeans and the cotton and the wheat production are going to be family-owned operations.

COMMISSIONER TOBIN: Okay.

MR. NORTHEY: Most of the beef raising business is. Some of the beef finishing business is not. Much of the big beef finishing business is not. Concentration also impacts folks by who they are buying from and who they're selling to. So although the on-farm production is generally very family-owned, and there's a lot of players increasingly both in who we buy things from and who we sell things to, there are fewer numbers of players, and especially in those times of financial issues within agriculture, we look out to that, and it seems like some cases that those segments are still doing okay although agriculture is not. So there are tensions outside of just the production side sometimes as well.

COMMISSIONER TOBIN: Anyone else on that supply chain? No. Perhaps our staff could help find information about that across all of the states.

Thank you.

HEARING CO-CHAIR SLANE: Commissioner Shea.

VICE CHAIRMAN SHEA: Just two quick questions. Just to Commissioner Talent's point about self-sufficiency, China has a strategic pork reserve; doesn't it?

DR. HAYES: It does.

VICE CHAIRMAN SHEA: Is it a serious thing or is it maintained as more of a public relations thing?

DR. HAYES: It was very serious, and I remember being in freezers over there with carcasses stacked to the roof, but it's becoming much less and less, lower and lower, but they do have a rule that says that they'll buy into that reserve when the hog-to-corn ratio gets below six, and they'll sell out of it when the opposite is true. But the quantities that actually flow are pretty small right now.

VICE CHAIRMAN SHEA: Pretty small. In our briefing book, the staff of the Commission writes that China's official studies indicate that pollution from livestock farms in 2011 was about three times the pollution emitted from industrial sources, which really struck me as very significant.

So I was wondering if you could comment on the environmental issues associated with agriculture in China?

DR. HAYES: I'll start. In Iowa, hog manure has value, and chicken manure has real value, so it's not pollution at all. It's actually a way of recycling fertilizer in a way that's positive for the environment, and in a lot of Asia that's not true, and manure is a pollutant, and sometimes they'll put it in a river or even put it on a barge and bring it to the sea and dump it there.

So that's an additional reason why those products should be produced where the economics say it makes more sense, and one of the reasons that the livestock industry has moved back into the Midwest is we're one of the few places in the world where we can utilize those nutrients like that. It's not true for the Carolinas. It's not true even in the prairie provinces of Canada.

VICE CHAIRMAN SHEA: Dr. Gale?

DR. GALE: Traditionally, in China, actually hog farming was viewed mainly as a source of nutrients for crop production when each farmer had a couple of hogs in their backyard, and they could easily spread it on their own fields. But

as they moved to concentrated production, the amount of waste is so large, that there is no way that it can be transported and spread on farms from an economic point of view.

And at the same time, China has been expanding use of chemical fertilizer to replace that manure as a nutrient. And so two things are happening: you've got a concentration of waste at a point in time, much of which is not treated and ends up in the water system; at the same time, crop producers have been using chemical fertilizers and use a very high level, much higher per acre application than the United States and often not well formulated.

So both of these things are contributing to massive water pollution issues in China, and you can see in almost any body of water that it's choked with algae, and the Chinese just in the last few years have started to acknowledge that. There was a census of pollution sources in 2009 by the Ministry of Environment that first revealed it, and then I think probably last year, the Ministry of Agriculture finally acknowledged it, and there are efforts being taken to encourage farms to subsidize treatment, biogas generation and such things, to try to deal with the issue, but it's still a very serious problem, and it's a reflection of, again, the livestock production being beyond the carrying capacity of the land.

MR. NORTHEY: And I think, as well, the structure of the industry being, actually in this case, hundreds of millions of farmers, all with very small operations, it is hard to get to each of those to be able to show them how they can improve their management. That is evidently some of the reasoning, besides the production increases that could happen, that they'd like to have some consolidation within agriculture, so better management--

VICE CHAIRMAN SHEA: Of the waste.

MR. NORTHEY: --could happen. Yes, of the land, as well as the food safety concerns around livestock production, as well. I think there is some argument that if they have a handful of folks or, you know, a handful may be a million instead of 300 million people, but at least a number that are easier to be able to get to and to, and I'm sure in some cases, regulate as well, but certainly teach how to do a better job.

That would be an easier way to be able to make sure that things are handled correctly, both on the environmental side but also from a safety side.

VICE CHAIRMAN SHEA: So it sounds like they recognize the problem but have taken very modest steps to address it in any kind of significant way. Is that a fair assessment?

DR. GALE: I think it's a major priority. I think just actually in the last year with the new administration, there's a big change in rhetoric to try to address some of these problems, and there is a movement to consolidate farming to some extent for these very reasons and improve the whole gamut of things, including food safety, controls on production inputs, as well as improving the extension system to disseminate better management techniques to farmers.

And it's all a very complicated process, and it's very, you know, it's happening really as we speak, and it's really at a critical juncture for this right

now.

VICE CHAIRMAN SHEA: Thank you.

HEARING CO-CHAIR SLANE: Commissioner Bartholomew is going to attempt to stump the panel.

[Laughter.]

COMMISSIONER BARTHOLOMEW: Or I'm going to sound like an idiot. It's actually a technical question. Secretary Northey, have you been a farmer?

MR. NORTHEY: Yes, I am.

COMMISSIONER BARTHOLOMEW: Have any of the other ones been farmers? You have. Okay. So we're talking about water pollution and the impact. What I keep wondering is what is the impact of air pollution on the soil and the things that are growing in the soil? Every time I go to China, I wonder that when I eat all those vegetables, what on earth am I consuming? And there are some fantastic roses in Chinese cities amidst all of this terrible pollution, and somebody told me once that roses thrive in acidic soil.

So as we talk about water pollution, I'm trying to understand what all that air is doing, not just to people's lungs, but to the things that people eat. Is there a transmission of--

MR. NORTHEY: Maybe others can help better, but there is some impact. In fact, as we had rules change in the United States around sulfur emissions, we were getting some value in our agricultural land from some of that sulfur that was airborne that came in. So now some farmers are having to apply sulfur to their crop production here.

Now there're a lot of bad things that can happen as well, and we have nowhere near the concentration of some of those--

COMMISSIONER BARTHOLOMEW: Right. Particulates that they have.

MR. NORTHEY: --cities in China that are--

COMMISSIONER BARTHOLOMEW: Yeah.

MR. NORTHEY: So there would be plenty of other things that I wouldn't necessarily want on my fruits and vegetables that were outside that I'm sure somehow get there, but maybe the other folks that are--

HEARING CO-CHAIR SLANE: Do you really want to know what we can eat when we--

COMMISSIONER BARTHOLOMEW: Yeah, I know.

[Laughter.]

COMMISSIONER BARTHOLOMEW: When we had this hearing in New Orleans the dean mentioned on Chinese fish and its impact on U.S., many of us have not eaten certain kinds of fish since. So I'm wondering, by the time we finish today, what we will be eating.

[Laughter.]

COMMISSIONER BARTHOLOMEW: Dr. Hayes.

DR. HAYES: I would stay away from the milk.

COMMISSIONER BARTHOLOMEW: Yeah.

DR. HAYES: But I grew up in Ireland, and Ireland, like China, has a low-hanging cloud all year long. In China, it's pollution. And in Ireland, it's natural. But either way, the plants seem to grow well. It doesn't seem to be a big issue.

COMMISSIONER BARTHOLOMEW: But you're not worried about toxins that are coming from--I mean think about what acid rain has done to some of our forests.

DR. HAYES: Yeah, yeah. Well, I think more of the middleman and the incentives to cheat over there in terms of adulterating foods. It's a huge issue.

COMMISSIONER BARTHOLOMEW: Okay.

DR. HAYES: And by the way, U.S. brands over there, like U.S. pork or U.S. beef, sells at a premium because of that.

COMMISSIONER BARTHOLOMEW: Yeah, yeah.

DR. HAYES: And New Zealand as well.

COMMISSIONER BARTHOLOMEW: That was another reason I was wondering whether the counterfeiting was happening, because people can trust products that are grown here that they can't necessarily trust. So, Dr. Gale, anything you want to add?

DR. GALE: I can't speak directly to the influence of air pollution. It's been an issue that the Chinese have actually been concerned about for going back to the 1990s when the Ministry of Agriculture started what they call "Green Food" production program, which is a kind of certification.

And there's a wide variety of pollutants in the soil. Some of them come from livestock like a lot of farmers use various heavy metals like copper sulfate and even arsenic that they add to the feed to improve digestion and the appearance of the animal, and then most of that comes out the other end and ends up in the soil, and then it can be absorbed through the roots of the crops.

There's a big issue in China with pollution of rice with cadmium, which probably comes from industrial sources, and there are a whole host of pollutants in the soil, and the Chinese are very aware of that, and they use that. Certain regions in the margins of the country, like near the Russian border, there's an area that they call the Great Northern Wilderness in Chinese, and they play up their advantage as being unpolluted and unspoiled, both in the domestic market and to export, as their competitive advantage.

COMMISSIONER BARTHOLOMEW: Thank you.

HEARING CO-CHAIR SLANE: On behalf of the Commission, I want to thank all three of you. It was great testimony and very, very helpful.

We're going to take a 15-minute break, and we'll reconvene at 25 after. Thank you.

[Whereupon, a short recess was taken.]

PANEL II INTRODUCTION BY COMMISSIONER DANIEL M. SLANE

HEARING CO-CHAIR SLANE: We're going to reconvene our hearing. Our second panel today will deal with food safety, and our first witness is Bill Westman, who is Vice President for International Trade at the American Meat Institute in Washington. Mr. Westman has been working at the American Meat Institute since 2010 where he helped develop overseas markets for meat producing and packaging industry.

Prior to this, he worked for nearly three decades in the U.S. Department of Agriculture's Foreign Agricultural Service, serving at FAS offices in Europe, Latin America and Asia.

In the mid-2000s, he served as the Agricultural Minister Counselor at the U.S. Embassy in Beijing, where he witnessed the early years of China's accession to the WTO. Mr. Westman received a master's degree in forestry with a minor in agricultural economics from Virginia Tech.

Also, in our second panel is Mr. Kevin Brosch, a partner at DTB Associates in Washington and an independent consultant to the U.S. Poultry and Egg Producers Council.

Through his role at DTB, a leading law firm specializing in agricultural trade, Mr. Brosch has provided valuable advice to clients on a wide range of international trade issues, most recently to USAPEEC in the poultry sector.

Like Mr. Westman, Mr. Brosch gained valuable experience as an official at the USDA where he served as Deputy Assistant General Counsel for International Trade in the Office of the General Counsel from 1989 to 1999. In that capacity, he negotiated the Agriculture and Sanitary and Phytosanitary Agreements in the WTO Uruguay Round in the early 1990s.

Mr. Brosch is therefore particularly well qualified to discuss food safety issues. Mr. Brosch is a graduate of the College of William and Mary and earned his law degree from Catholic University Law School.

Finally, we'll hear from Ms. Patty Lovera, Assistant Director of Food & Water Watch. Ms. Lovera is the Assistant Director of Food & Water Watch where she coordinates the food team. Ms. Lovera's organization has published numerous reports regarding China's food safety, including a 2011 report entitled "A Decade of Dangerous Food Imports from China."

Ms. Lovera has a bachelor's degree in environmental science from Lehigh University and a master's degree in environmental policy from the University of Michigan.

And I think we'll start with Mr. Brosch.

OPENING STATEMENT OF KEVIN BROSCH
SENIOR CONSULTANT, DTB ASSOCIATES LLP

MR. BROSCH: Good morning. First, I want to apologize to Dean Wintersteen for not having attended Iowa State University.

[Laughter.]

MR. BROSCH: I attended William and Mary. I was young and stupid. What did I know? I was only 18. However, I did rebound: I married well. My wife's family is from Cedar Rapids, Iowa, and her grandfather graduated from this great university in 1913 so what I really want to know from the dean is where can I get a souvenir T-shirt that says "Grandpa Was a Cyclone"?

[Laughter.]

MR. BROSCH: I'm here today on behalf of USA Poultry and Egg Export Council, otherwise known as USAPEEC, a national association for the U.S. poultry and egg export industry. It's headquartered in Stone Mountain, Georgia, and its more than 200 member companies account for approximately 95 percent of our country's very significant poultry and egg export trade.

The U.S. is the most efficient poultry industry in the world with about 20 percent of the world's production and about one-third of the world's exports. The U.S. annually exports about 3.7 million metric tons of poultry meat valued at about $4.6 billion to more than 120 countries.

During the past decade, China was one of our more important markets. In the future, if the U.S. poultry industry is not significantly engaged in the China market, we are nowhere. China has the world's greatest population and one of the fastest growing economies. By 2025, an additional 250 million Chinese will come into the middle class and will begin to purchase a better and higher protein diet.

For a person moving into the middle class who still has only a moderate income, poultry meat is the lowest cost option for increasing protein in their diet. And so China will increasingly need significantly more poultry meat. China's annual per capita consumption of poultry meat, about 10 kilograms per year, lags well behind the rest of the world. Annual per capita consumption in the United States, by comparison, is 42.4 kilograms. In Canada, it's almost 30 kilograms. In Japan, which is a modest poultry-consuming country, it's 17 kilograms.

So consider this: if China's population were to remain static over the next two decades at about 1.3 billion people, and if China's annual per capita consumption were to grow just to the level of Japan, still a very modest level consumption, 11 million metric tons of additional poultry meat would be needed. That's an amount equal to all current world exports of poultry.

China is a country with limited food-growing capacity. The gentlemen in the panel before me talked and know more about this than I do, but only about 11 percent of China's land mass is arable, and it can't produce enough feed for significantly larger poultry production.

China cannot become an efficient poultry producer at a much larger

scale by importing feed because the high acquisition costs and transportation costs that they would incur. The policy that makes sense for China is to import chicken, and the U.S. is a logical and efficient source of supply.

Also, China has had a number of problems with its food safety system including one of the worst outbreaks of avian influenza that's ever occurred. Importing poultry meat is potentially an attractive option for China because it would help to relieve the strain on its beleaguered government health safety system as well.

Between 1990 and 2008, U.S. exports of poultry to China grew rapidly from virtually none in 1990 to approximately $750 million worth of exports by 2008. For a short time, China became our most important single market, and then U.S. trade relations with China soured, and the U.S. government made what we considered to be several serious missteps: the imposition of safeguard duties against Chinese car tires and the passage by Congress of the so-called DeLauro Amendment, a provision of law that has since been determined by a WTO panel to be inconsistent with U.S. obligations under several WTO agreements.

These actions angered China, and understandably so, and China retaliated by imposing significant antidumping duties on U.S. poultry products. Unfortunately, we were the big target that was standing out there. This effectively reduced our market significantly, and China's imposition of antidumping duties frankly is also illegal under WTO, and it's now being challenged.

It's a tragedy that our poultry industry, one of the most efficient U.S. agricultural production sectors and its most successful exporting sector, has been the victim of the inability of the United States and China to develop better trade relations and, in the case of both countries, to play by international rules. Both the U.S. and China are WTO members and both need to learn to respect WTO rules and to live up to their commitments.

You've asked finally what policy changes the United States Congress should consider as we move forward towards increased and increasingly important trade with China, and we can suggest several ideas. First, we believe that it's due time for Congress to consider reform of the U.S. antidumping laws and for the international system to consider reform of the international rules that govern the imposition of dumping.

This is long overdue. The dumping case that China brought against us is frankly incorrect, illegal and illogical, but nonetheless we have a very difficult time because nobody in the world is willing to challenge dumping cases.

We need further support for the Food Safety Inspection Service. We depend here in the United States, those of us who eat poultry and meat everyday, on that Inspection Service. They look at everything we eat everyday, and our ability to export to 120 countries is dependent upon that certificate that they issue for our product. We need to give our support to FSIS and to show our trust in their science-based judgments.

Finally, both the United States and China need to learn better to honor their international commitments. We Americans expect other countries to treat us

fairly and to live by international rules. And the U.S. government needs to set the example because we are the leading trading country in the world. We cannot preach WTO rules if we don't live by them.

Congress needs to develop a mechanism whereby proposals like the DeLauro Amendment can be reviewed for consistency with international obligations and all members can understand what they're voting on when these kinds of proposals come before them.

Thank you very much.

PREPARED STATEMENT OF KEVIN BROSCH
SENIOR CONSULTANT, DTB ASSOCIATES LLP

Before
The U.S.-China Economic and Security Review Commission

Ames, Iowa
April 25, 2013

Testimony of Kevin J. Brosch

Trade Consultant to USA Poultry & Egg Export Council

Good Morning Ladies and Gentlemen of the Commission. My name is Kevin J. Brosch. I am here today to testify on behalf of the poultry and egg export industry of the United States. For the past 14 years, I have served as special trade consultant to, and Washington D.C. representative for, USA Poultry & Egg Export Council (USAPEEC). I have been practicing international trade law in Washington for 32 years, initially with Steptoe & Johnson's international trade practice. I served in government as counsel to USDA during the Uruguay Round and NAFTA negotiations; and also as trade advisor to the Senate Agriculture Committee and then Chairman, Senator Dick Lugar. In 1999, I returned to private practice and formed the agricultural trade consultancy firm, DTB Associates, LLP.

USAPEEC is the national association for the U.S poultry and egg export industry. Its headquarters are in Stone Mountain, Georgia, and its more than 200 members companies – poultry producers, processors, export trading companies, cold storage operators, freight forwarders and other associated businesses -- account for approximately 95% of our country's very significant poultry and egg export trade.

The United States has one of the most efficient poultry industries in the world. The U.S. is the largest producer of poultry meat with about 20% of the world's production (China is second with approximately 17%) and is one of the two leading poultry exporting nations (the United States and Brazil each account for about one-third of the world's broiler exports). Poultry and egg exports are among the most important of all U.S. agricultural exports. In the most recent year for which full data is available, the U.S. exported approximately 3.7 million metric tons of poultry meat, with a value of nearly $ 4.6 billion. The U.S. currently exports chicken, turkey and eggs to more than 120 countries. While the situation in different markets varies from year to year, over the past decade our five most important poultry export markets have been Russia, China, Mexico, Hong Kong and Canada.

U.S. Interest in the China Market.

We have been asked whether our industry considers China to be an important current and future market for U.S poultry. The answer to that question is simple: in the future, if the U.S. poultry industry is not significantly engaged in the China market, we are nowhere.

China is the largest country in the world by population with an estimated 1.3 billion citizens and has one of the world's fastest growing economies. While just a few decades ago China's population was poor and largely rural, today China's economy is increasingly prosperous and increasingly urban, particularly along its eastern seaboard. It is estimated that by 2025 an additional 250 million Chinese will come into the middle class. Economists have long observed that one of the first things that a person does when he or she acquires middle class income is to purchase a better and higher-protein diet. And so, one of the most predictable results of this rapid growth in China's economy is that China will increasingly need more poultry, eggs and meat.

And, for a person moving into the middle class who still has only moderate income, poultry meat is, in almost every case, the lowest cost option for increasing protein in the diet. Broiler chickens are very efficient converters of feed by comparison with other commercial meat animals. The U.S. industry and U.S. land grant universities have spent decades studying the science of efficient broiler chicken production, and have made incredible strides in genetics, breeding, diet and disease control. Today, the U.S. industry can produce a pound of chicken meat for less than two pounds of feed. By comparison, even where production is very efficient, a pound of pork meat requires four and a half pounds of feed; a pound of beef requires nearly nine pounds of feed. As a result, poultry is, in virtually every case, the least expensive source of animal protein commercially available.

Although China is currently the world's second largest producer of poultry meat, that production is not great in comparison with China's population. China's annual per capita consumption of poultry meat – about 10 kg.– lags well behind much of the rest of the world. Annual per capita consumption in the U.S., by comparison, is 42.4 kg.; in Brazil, 44.4 kg; in Canada, 30 kg. Even in the EU-27 or in Japan, where pork or fish are the preferred source of animal protein, average annual consumption is approximately 17 kg. However, as China's middle class grows over the next 25 years and as its citizens become more prosperous, there will be increased demand for, and consumption of, poultry meat.

Consider this: if China's population remained static at 1.3 billion over the next two decades, but China's consumption of poultry increased by 50% over its current level, annual per capita consumption would still only be about 13.8 kg. That would be less than one-third the per capita consumption in the U.S. However, the amount of additional chicken production required would be approximately six million additional tons. This is an amount that is approximately 60% of all current broiler meat exports in the world – or just slightly less than the total current annual exports of both the United States and Brazil. If China's annual per capita consumption were to grow to the level of Japan – about 17 kg., still a modest level – the additional poultry needed would equal all current world exports of poultry meat.

As demand for additional meat and poultry products grows in China over the coming decades, China will have to weigh its options: it can import additional meat and poultry products from highly efficient producing countries like the United States, or it can attempt to increase its own broiler production. Several factors make it clear that the rational policy choice for China will be to look for trading partners from whom they can reliably source their poultry and egg requirements. China is a country with limited food-growing capacity. Only about eleven percent of China's land mass is arable and suitable for agricultural production. China is already using that scare land resource to produce the rice, wheat, pork, chicken and vegetables that its people currently consume. If China were to attempt to grow its domestic

poultry industry to meet increasing demand, it would need either to find a great deal of additional land to grow the feed needed for the poultry (and that is simply not an option because more arable land does not exist); or it would need to import massive amounts of feed. China simply cannot become an efficient poultry producer at a much larger scale because of the high acquisition and transportation costs that it would have to incur to import feed. The better alternative is to import the chicken, which is the policy that makes sense economically.

A second constraint that China faces is its record regarding food safety. As you all know, China has had a number of problems with its food safety system, including the famous episode of melamine in its milk supply. China sits on several of the world's largest migratory bird fly-ways and, as a result, is the original source of most strains of influenza, including new strains of avian influenza, a disease that is endemic in migratory birds. Several years ago, China endured one of the worst outbreaks of avian influenza that had ever occurred. Currently, China is attempting to deal with another, and potentially even more serious, avian influenza incident, this time of the H7N9 strain. Because of these various problems, there is a perception, even among the Chinese consumer, that food produced in China is not always safe and there is often a preference for imported products if they are available. While China will certainly improve its food safety system over the long term, in the near term, importing poultry meat is a potentially attractive policy option for China because it would help to relieve the strain on a beleaguered government health safety system.

In summary, our industry sees China as the most important export opportunity that we will have in the future. China's huge population and growing prosperity mean a large growth in demand for low-cost, high-quality protein products such as poultry meat; and China's problems of limited arable land and food safety concerns make importation of poultry meat from efficient producers like the United States a logical policy choice.

China's Accession to the World Trade Organization

You have also asked whether we consider China's recent accession to the World Trade Organization an advantage for our trade with China. We believe that, in the long term, WTO membership for China will be a very positive factor for our bilateral trade. However, in the short term, it has not been a positive factor; indeed, it has been problematic, and I should explain why.

China's accession to the WTO was a long and difficult process, and progress toward accession was often blocked as the U.S. and other WTO Members raised issues that were politically sensitive within China. Representatives of our industry were actively engaged in China during that entire time and, based on many conversations we have had with both Chinese government officials and our industry counterparts in China, we have come away with the very strong impression that China felt it was "bullied" in the process. Since its accession, China has lashed back on several occasions, and we believe that the sense that it had not been treated fairly in the WTO accession process contributed to the way in which China has reacted on several bilateral trade issues.

Of course, other factors have contributed to generating bilateral trade problems between the United States and China, including some serious policy missteps by the U.S. government. The U.S. poultry

industry has been the unfortunate victim of one of the worst episodes in this regard.

In 2009, at the beginning of the current Administration, it was decided to use the U.S. safeguard law – section 201 of the Trade Agreements Act of 1974 – to impose restrictions on the importation of low-priced car tires from China. Much has been written about this matter but, in our view, the decision was motivated by domestic politics in the United States and did not serve either to protect a viable U.S. industry or to promote good trade relations with China. China had developed a very significant tire industry, and this decision led to the loss of many jobs in China and tremendous resentment.

About the same time, the U.S. Congress passed a provision into law known as the "DeLauro Amendment" which denied USDA's Food Safety & Inspection Service (FSIS) the ability to use any appropriated funds to conduct risk assessment with respect to China's request to ship certain cooked poultry products to the United States. This action was both myopic and misconceived. The WTO Agreement on Sanitary and Phytosanitary Measures requires WTO Members to take decisions whether to allow imported product based on sound science and risk assessment. A law that prohibits FSIS from conducting risk assessment on potential Chinese imports is a clear violation of WTO rules and a contravention of the obligations the United States had undertaken as a WTO Member. In addition, the DeLauro Amendment had singled out China for this unfair treatment; it was the only country among the more than 160 WTO countries where FSIS was denied funds to conduct risk assessment. This was a clear violation of the WTO's most fundamental rule, the "Most Favored Nation" principle. China felt it had been insulted, and for good reason.

Our industry unequivocally supported China's right to obtain a decision about its ability to export to the United States based on risk assessment. I personally testified before Congresswoman DeLauro's subcommittee on behalf of our industry and a coalition of 39 other agricultural commodity groups and companies asking Congress to rescind the DeLauro Amendment and to treat China in accordance with WTO rules. Our industry did not prejudge China's worthiness to export product to the United States; we believed that this was a technical decision that the appropriate health regulator, FSIS, should make based on sound science. We were willing to accept whatever decision FSIS made. We argued that Congress should, in accordance with U.S international obligations, do the same. Congress ultimately did make changes to the DeLauro Amendment, but in the meantime, China instituted dispute settlement proceedings at the WTO. The dispute settlement panel quickly and definitively ruled, as we were sure they would, that the DeLauro Amendment was inconsistent with U.S. obligations. The U.S. industry had predicted this outcome, and applauded the decision of the WTO panel.

However, an aggrieved China did not wait for Congress to act or for the results of WTO dispute settlement. Angered by its treatment during accession and aggrieved by both the Car Tire 201 decision and the DeLauro Amendment, it decided to strike back on its own terms. Unfortunately for our industry, we had been building a very successful trade with China – our exports had increased to nearly $700 million annually at that point – and we provided a convenient target for retaliation. In September 2009, China initiated an antidumping and countervailing duty investigation against imports of U.S. poultry meat. Because U.S. poultry is not dumped by any recognized legal standard, China employed a relatively novel and economically absurd theory known as "average cost of production." After a short investigation, China imposed dumping duties on U.S. poultry and shut down our trade. A case has since

been brought before the WTO challenging China's imposition of duties, and we fully expect that the U.S. industry will be vindicated when a decision is eventually rendered. But, in the meantime, the U.S. poultry industry has incrurred hugh legal costs and has suffered the loss of billions of dollars of trade for no good reason.

I should also add that the DeLauro Amendment was particularly misguided because, by denying FSIS the resources to do risk assessment with respect to Chinese imports, Congress was effectively saying that it did not trust FSIS to make a valid scientific decision or to adequately protect the U.S. consumer. Every day, FSIS inspects virtually all of the meat and poultry consumed in the United States. It is the agency that we depend on to protect our citizens. It is the agency that is respected as the world leader in meat and poultry safety and whose certificates enable us to export to more than one hundred other countries. It was, very frankly, highly irresponsible for Congress to presume that it (or more accurately a small subcommittee of Congress) could make a better judgment about the safety of Chinese imports based on political perception than FSIS could make by engaging in a full and rigorous scientific assessment. Congress has empowered FSIS to do meat and poultry inspection and its scientists and inspectors do a world-class job. Congress should support FSIS's work; it should not undercut that important mission by passing provisions like the DeLauro Amendment.

The early years of China's membership in the WTO have not gone smoothly. In the long term, we believe that both China and the United States will learn that we all have to live by the rules if we want consistent and mutually beneficial trade. China has had WTO cases initiated against it and has lost a number of them. Ultimately, we believe that China will come to understand that it adhere to WTO rules for it to become a good world citizen and an effective voice in the world trading community. But the same applies to the United States. Our government -- both our Executive and our Congress -- must also learn to play by the rules. The politically motivated Car Tire 201 case and the DeLauro Amendment demonstrate that the U.S. Government does not always make decisions consistent with its international obligations or in its own best long-term trade interests. We need to learn to "do unto others" as we would have them do unto us.

Food Safety Issues within China and Impact on U.S. Exports.

You inquired whether the U.S. industry has had particularly difficult problems with China in respect to sanitary and food safety measures. While we have had difficulties, it is not our perception that China is attempting to use sanitary or food safety measures as non-tariff barriers against U.S. imports of poultry. Rather, we believe that China's strict, and sometimes unsupportable, decisions to impose limitations on U.S. imports are driven primarily by internal pressures on its government as a result of past domestic food safety mistakes.

As I discussed earlier, China is currently dealing with a crisis of confidence among its consumers regarding the safety and quality of food produced within China, and the Chinese government is under pressure to crack down on its domestic producers who fail to adhere to proper safety standards. The result has been that Chinese citizens often seek to obtain imported food products that they feel are safer. For example, it was recently reported that many mainland Chinese visiting Hong Kong are returning to China carrying canned milk and dairy products. China has been forced to impose limits on this practice

as Chinese food producers, subject to increased scrutiny, have begun to demand greater vigilance with respect to imports.

China currently imposes bans on imports of poultry products from two States – Arkansas and Virginia. As a matter of international rules, neither of these bans is justified. The WTO Agreement on Sanitary and Phytosanitary Measures requires that WTO Member countries base their measures on certain specified international standards, including those of the World Organization for Animal Health (OIE). Under OIE guidelines, animal products should be banned for import only if the country from which they are exported is experiencing a reportable "List A" animal disease. In regard to Avian Influenza (AI), only highly pathogenic stains of AI are reportable List A diseases. Neither Arkansas nor Virginia has experienced high path AI; the only cases they have reported are low path incidents. (In fact, the United States has not had a case of high path AI. Ironically, China has reported a number of high path AI incidents).

Although low path AI incidents are not reportable under international standards, in the United States all incidents of AI are reported. Our system of disease reporting is extremely comprehensive and intended to collect all possible data about human and animal diseases. As a result, we are, in a sense, our own worst enemy. Countries like China will, at times, take action against our exports based on reported incidents of low path AI. In our view, Chinese health officials are now under a tremendous amount of internal pressure and scrutiny and want to appear to their domestic constituents to be increasingly vigilant. However, the bans on Arkansas and Virginia are inconsistent with international rules and we are working with our government and with the Chinese government to address this situation.

I should add that China is not the only country that has imposed bans on exports from particular States of the United States based on reported low path incidents. Other countries – Japan, Taiwan and India immediately come to mind – have done likewise.

Key Policy Leaders in China

Our experience has been that key policy decisions in China are made within the China People's Congress. The U.S. industry has worked with both the China Chamber of Commerce of Foodstuffs and Native Produce (CFNA), which is part of the Chinese Ministry of Commerce (MOFCOM) and with the Chinese Animal Agriculture Association (CAAA), which is affiliated with China's Ministry of Agriculture. During the debate over the DeLauro Amendment and attempts to revoke or modify it, USAPEEC sponsored a visit to the United States by officials from both ministries so that they could better understand our congressional process. The delegation from China spent several weeks in Washington visiting with various congressional offices and attending a short course on the congressional process conducted jointly by Georgetown University and the Brookings Institution. Although we believe that the visit gave our Chinese interlocutors a better appreciation of the difficulty that we faced in attempting to get changes to the DeLauro Amendment, we were unable to forestall the initiation of the antidumping investigation in China.

Key Policy Changes in the United States

You have asked, finally, what policy changes the United States Congress should consider as we move forward toward increased, and increasingly important, trade with China. We can suggest several ideas:

- Revision of the Antidumping and Safeguard Laws. Historically, the United States has been the primary user of import protection laws. The U.S. has initiated hundreds more antidumping cases than any other country. Indeed, the antidumping bar has become a formidable industry in Washington. Traditionally, antidumping was considered to be a way in which the U.S. could allegedly guarantee "fair" competition from imports without any international oversight and without much consequence. However, those days are over. First, it should be noted that other countries have never considered the U.S. antidumping system to be fair; to the contrary, it is universally considered by our trading partners as unfair, protectionist and designed to shelter uncompetitive U.S. industries from foreign competition. Other countries have now learned to "play the game" and increasingly it is competitive U.S. exporters who are subject to antidumping investigations in other countries. Other countries now believe that they can bring antidumping actions and impose additional duties on U.S. goods with impunity because the United States, concerned about protecting its own antidumping system, will not challenge them. Since the turn of the Century, the U.S. poultry export industry has spent tens of millions of dollars defending antidumping cases. In 2000, the first of these cases was brought by South Africa under the dubious "average cost of production theory." The U.S. Government has allowed this absurd decision to stand without being challenged for 13 years, and the U.S lost this market to Brazil. Subsequently, copy-cat antidumping cases have been brought in the Ukraine, China and Mexico. In each case, the U.S. industry has incurred tremendous legal costs and has lost hundreds of millions of dollars in trade. Even when the U.S has decided to launch a WTO challenge – as in the case of China – it required the industry to spend tens of millions of dollars on lawyers and to suffer several billions of dollars in lost trade as it awaits the outcome of the WTO panel decision. In short, the old antidumping rules and system no longer operate to the benefit of the United States. Reform of the U.S. laws, and of the international rules governing the imposition of antidumping duties, is long overdue. Similarly, the U.S. safeguard law is anachronistic and should be reconsidered and revised.

- Support for FSIS. One of the most important functions that the U.S. Department of Agriculture performs is its inspection of meat and poultry. It is also one of the functions for which USDA is universally respected. Congress should increase it support of FSIS and its role as protector of meat and poultry food safety. Congress should also realize that our success as an exporter of meat and poultry – U.S. pork and U.S poultry are our country's most competitive agricultural export sectors – is based on the international perception of FSIS has a high quality, science-based regulator. Congress should do nothing to interfere with FSIS's valid exercise of that role, but instead should provide additional resources so that FSIS can function both as an inspector of U.S. product, and as a fair assessor of requests by other countries to access our market. The DeLauro amendment did nothing to protect the U.S consumer; to the contrary, by suggesting that FSIS was not capable to doing its job, it undermined the very protections that we need from FSIS as the world's leading meat and poultry regulator.

- Honoring International Commitments. Americans expect other countries to treat us fairly and to live by international trade rules. The U.S Government needs to set the example. It cannot preach WTO rules if it does not live by them. This is particularly true for our Congress. It is an international embarrassment when Congress passes a law that is then found to be blatantly inconsistent with the international obligations that we have undertaken. This occurred when China challenged the DeLauro Amendment and the WTO ruled that it violated international standards. It has happened previously on other occasions – *e.g.*, in the mid-1990's when 21 other WTO Members challenged the so-called "Ford Amendment" on tobacco. As the leading nation in the international trade community, the U.S. must set the example. Congress needs to develop a mechanism whereby proposals like the DeLauro Amendment would be reviewed for consistency with international obligations – much like the process whereby the parliamentarian reviews proposed legislation for consistency with congressional process and rules.

Ladies and Gentlemen of the Commission: Thank you for this opportunity to speak with you today about trade with China. I would be happy to try to address any questions you might have.

OPENING STATEMENT OF BILL WESTMAN
VICE PRESIDENT, INTERNATIONAL TRADE
AMERICAN MEAT INSTITUTE

MR. WESTMAN: Good morning. First, I'd like to thank the Commission for the opportunity to speak today. The issues associated with agricultural trade between the U.S. and China are obviously very important. We think collaboration and open dialogue between our nations around these opportunities and challenges has the potential for immense mutual benefit.

AMI is the oldest and largest meat industry association in the United States representing interests in beef, pork, lamb and turkey, our meat packers and processors, as well as 225 equipment and supplier companies that service our members.

For U.S. beef, pork, turkey and lamb processors and exporters, there's probably no market that offers greater long-term potential than China.

During my time working at the U.S. Embassy and living in Beijing, the best experts on Chinese agriculture and agricultural trade that I worked with had been there more than 20 years living and working in China. It was with their advice and counsel and through my own study and observation that I have developed any conclusions I've reached today.

China's transition and development since 1979 is nothing less than extraordinary. As you know, that transition has been highlighted by the shift from a traditional commodity-centric agricultural model to an increasingly sophisticated consumer-oriented market. The growing emphasis on food safety, food security, and sustainability is a direct result of the challenges of feeding 1.3 billion people daily.

China has tremendous resource constraints and environmental challenges, which will force them to rely on technology to enhance wise use of their limited natural resources and improve productivity and the quality of agricultural products.

China, and I will include Hong Kong in that definition, is already an excellent market for U.S. beef, pork and poultry products. U.S. exports of muscle cuts and variety meats totaled more than $2 billion last year, over one million metric tons, which represented about 12 percent of our total exports of these products.

In our view, this is just the beginning. The market performance has been accomplished with the mainland Chinese market officially closed to U.S. beef, with restrictions on feed additive residues in U.S. pork, and market barriers on U.S. poultry products. Given China's resource constraints, we anticipate that China will continue to rely on imports to meet domestic demand for many commodities, intermediate and high-value products.

Additionally, China's impressive economic growth in the past 34 years has led to a rapidly growing middle class with increased purchasing power. As in many markets with this profile and development, increases in disposable income

lead to greater demand for higher quality proteins, and such is the case with China.

China's import situation is complex, and the goal of building trust and relationships with Chinese officials and trade contacts cannot be overestimated or underestimated or assumed. Additionally, restrictions on meat trade ebb and flow based on market conditions, local production and meat supplies, as was noted earlier in the first panel, and the threat of price inflation at the wholesale and retail levels.

China perhaps has been the rule taker for many years in terms of adhering to or being forced to adhere to other standards and rules of trade. In some respects, we can expect China to take a greater leadership role in evaluating and trying to influence global trade standards, regulations, and procedures which parallel China's domestic requirements. As China's stature and importance as a market has grown, combined with its financial strength and reach, we should expect China to be more prominent and strict in negotiating trade agreements as long as it suits their interests.

As already noted, few countries can match China's short and long-term potential for the entire array of products available from the United States. However, as we have seen in other markets around the world with the reduction in import tariffs and quotas as a result of bilateral and multilateral negotiations and the proliferation of "free trade" agreements, non-tariff, sanitary and phytosanitary barriers to trade are now, more often than not, the trade barriers of choice.

Trade barriers and restrictions to trade based on sanitary and phytosanitary concerns, real or contrived, have grown in recent years. Technical barriers to trade, including restrictive licensing, facility registration or labeling procedures, have increasingly restricted access to many markets including China.

U.S. government negotiators, private sector companies, and the meat trade associations have worked diligently with the appropriate Chinese officials to resolve these trade restrictions, but the negotiations are tedious and progress is slow.

To address the meat and poultry market access issues I've described here, I believe the U.S. Congress should consider the following:

Recognize the importance of exporting and the development of export markets in maintaining the long-term viability and growth of the U.S. livestock, meat and poultry sector;

Support U.S. participation in international standard setting organizations such as the Codex Alimentarius and the World Organization for Animal Health, known by the acronym OIE;

Ensure that U.S. government agencies and departments involved in market access and trade negotiations are staffed with professionals who understand the U.S. livestock, meat and poultry sector;

As Kevin mentioned in his remarks, ensure that the U.S. Department of Agriculture's Food Safety and Inspection Service, and I'll add the Foreign Agricultural Service, have adequate resources to regularly meet and engage with appropriate Chinese officials to facilitate communication and strive to remove

barriers to U.S. exports;

Ensure that USDA meat and poultry technical experts are included in all discussions and meetings with Chinese officials on meat market access issues; and, finally, ensure that USDA is afforded the license to create and base our trading rules, standards and practices on sound science in a timely manner to meet the needs of our trading partners and hold them to these high standards as well.

We strongly believe the opportunities are great through collaboration and dialogue, and the U.S. and China can benefit greatly. Thank you very much, and I cede the rest of my time to my colleague. Thank you.

PREPARED STATEMENT OF BILL WESTMAN
VICE PRESIDENT, INTERNATIONAL TRADE
AMERICAN MEAT INSTITUTE

PREPARED STATEMENT OF WILLIAM W. WESTMAN
VICE PRESIDENT, INTERNATIONAL TRADE
AMERICAN MEAT INSTITUTE

International Agricultural Trade Policy and China: Challenges and Opportunities

William W. Westman
Vice President
International Trade
American Meat Institute

[Written testimony prepared for the U.S.-China Economic and Security Review Commission's public hearing "China's Agriculture Policy and U.S. Access to China's Market" held in the Curtiss Hall, Iowa State University, Ames Iowa on April 25, 2013]

I thank you for the invitation to have an open dialogue regarding the challenges and opportunities for trade between China and the United States. Collaboration and open dialogue between our nations around these opportunities and challenges has the potential for immense mutual benefit.

The American Meat Institute is the oldest and largest meat industry association in the U.S. representing the interests of beef, pork, lamb and turkey meat packers and processors as well as 225 equipment and supplier companies which service our packer/processor members. The views and analyses I present here are based on my experiences living in China and my research and interaction with companies trading with China.

China's land area is similar in size to the United States or Brazil, but with a diversified topography and climate which heightens the challenges of fostering successful agricultural enterprises and the feeding of 1.3 billion people daily. Perhaps few people realize that China is the world's largest agricultural producer, by volume, with intense farming systems, sometimes involving double- and triple-cropping, especially in the north central region. This intensive land use expertise with "Chinese characteristics" may have evolved over 5,000 years of history. Add to this profile, severe water shortages in the north China plain, extensive surface water pollution and air pollution, an emerging cold chain distribution system and consumer demands for high quality, safe food products and you can begin to understand the challenges faced by China's leadership and its agroindustry.

As in many countries, China attempts to negotiate the balance between promoting local agricultural production and importing products to meet its surging demand for food in the face of an expanding middle class and growing disposable income over the past 34 years, since "market opening in 1979." Because of these developments, China is now an increasingly sophisticated market as consumers look for the highest quality products and are acutely aware of the importance of food safety. The Chinese, in

many respects, are similar to us. They want to trust their food production system with assurances of quality and safety and want to provide what is best for their families, especially their children's future.

As a market for agricultural products, few countries can match China's short- and long-term potential for the entire array of products available from the United States (and other suppliers) whether bulk, intermediate or high-value, or consumer-ready products for immediate sale. However, as we have seen in other markets around the world with the reduction in import tariffs and quotas as a result of bilateral and multilateral negotiations and the proliferation of "free trade" agreements, non-tariff, sanitary and phytosanitary barriers to trade are now, more often than not, the trade barriers of choice. And, although we often complain about our trading partners' trade restrictive practices we must recognize that the United States has also used this tactic from time-to-time to inhibit trade for reasons other than science or food safety concerns.

With this background, I'll discuss some of our trade policy challenges and opportunities with China relative to the livestock, meat and poultry sectors. In this testimony, I'll refer to the "Chinese market," but this also includes Hong Kong even though Hong Kong technically is a separate customs area from mainland China for trade reporting purposes.

As I noted earlier, few if any countries match China as a potential growth market, especially for beef, pork, poultry and lamb products as well as other sources of protein. In 2012, China imported $2.1 billion in U.S. beef, pork and poultry products representing 12.1 percent of total U.S. exports of these meat products at $17.4 billion. This is tremendous performance given the import restrictions China imposes on U.S. beef, pork and poultry, which I will describe below. Since China's accession to the World Trade Organization in 2001, U.S. beef exports (including muscle cuts and variety meats) had by the end of 2012 grown 138 percent in volume and 235 percent in value to $343 million. Pork products have also had a remarkable run increasing 400 percent in volume and 1,638 percent in value to $886 million over the same period.

Is this export growth market sustainable? For beef, some estimates project the export impact at an additional $200 million per year as a result of an official and fully opened Chinese market for U.S. beef. The potential for U.S. pork and lamb is also encouraging if certain restrictions are lifted. From a U.S. perspective in general, over the past 25 years, U.S. exports of beef, pork and poultry have become increasingly important to the long-term viability of the U.S. meat processing sector.

As per capita consumption of meat protein has declined in the United States, in recent years, foreign demand for U.S. meat protein is rising in North Asian markets, Canada and Mexico. In China, with strong economic growth and an expanding middle class with increasing disposable income, meat demand has been very strong. China is the largest pork producer and consumer in the world but is also a very promising market for pork exporters with access to the Chinese market. Recall China's intensive land use on an area equivalent to the United States with four times the human population and fives time the number of breeding sows -- 50 million, to be exact. China will continue to face tremendous challenges in food, feed and livestock production over the long-term. The lack of arable land and difficulties in obtaining adequate, clean water sources and relatively low grain yields in the north China Plain indicate that China will continue to rely on imports, but will likely explore technological

innovations to improve productivity and wise use of its limited natural resources. The U.S. is well-situated to supply this demand, not only for meat and poultry products, but also grains, oilseeds, hides and skins, and large variety of intermediate and processed food products of interest to Chinese consumers.

Trade barriers and restrictions to trade based on sanitary and phytosanitary concerns, real or imagined, have grown in recent years. Technical barriers to trade including restrictive licensing, facility registrations or labeling procedures have increasingly restricted access to many markets including China. Overall import tariffs have dropped as a result of the GATT, WTO and various regional and bilateral trade agreements which have come into force since 1994. We will benefit from overcoming the hurdles to get the free trade agreements in place with Korea, Colombia and Panama. I believe it is commendable that U.S. leadership is working very aggressively with the 11-nation Trans Pacific Partnership negotiations and the intent to engage the European Union in the Transatlantic Trade and Investment Partnership negotiations. These efforts should, sooner than later, encourage other countries such as China to become more involved in trade negotiations despite the action of other countries, such as Russia, who appear to be headed down a different path.

In China, U.S. exporters face restrictions on beef because of historic bovine spongiform encephalopathy (BSE) concerns, despite a recent recommendation by the World Organisation for Animal Health that the U.S. should be classified as a "negligible risk" nation. U.S pork exporters face restrictions over the use of feed additives in production, such as Ractopamine hydrochloride—a feed additive approved by the U.S. Food and Drug Administration in 1999. Recently, U.S. exporters of processed meat products have faced a ban on processed meat products (sausages, bacon) based on a reinterpretation of the 1999 U.S.-China agreement and the imbedded definition of "meat." U.S. government negotiators, the private sector companies and meat trade associations have worked diligently with the appropriate Chinese officials to resolve these trade restrictions, but the negotiations are tedious and progress is slow.

China's import situation is complex and the goal of building trust and relationships with Chinese officials and trade contacts cannot be underestimated or assumed. Additionally, restrictions on meat trade ebb and flow based on market conditions, local production and meat supplies, and threat of price inflation at the wholesale and retail levels. Naturally, these are not hard and fast factors, but in general these touch points are of great importance to the Chinese government so supply and demand factors especially in the meat and poultry sectors are monitored closely. Based on my experience, this explains to some extent China's apparent fluctuations in implementation of import restrictions—when local supplies are plentiful exporting becomes more difficult, especially for pork meat.

I would also like to address the restrictions on U.S. meat exports to China and to consider the current situation for beef and beef variety meats. China is one of many countries which continue to ban imports of U.S. beef based on presumed threats of transmission of BSE since the Canadian imported milk cow case in 2003. In fact, some of our best beef export markets such as Mexico, Japan, Korea and Taiwan still will only accept beef from animals less than 30 months of age despite a lack of scientific justification for these restrictions.

Clearly, the worldwide risk of BSE has diminished dramatically in recent years because of the ban on use of specified risk materials (SRM) in feed. As well, the prevailing general practice in the U.S. is to harvest beef meat livestock before reaching 30 months of age meaning the issue is inherently addressed for our trade partners with these restrictions. However, there is no logical reason not to accept U.S. beef animals or cull dairy or cow-calf cows over 30 months with SRM removed. In Japan, the Government is considering raising the age limit to 48 months to address local producers' requests. If enacted, presumably the relaxation of the requirement would apply to imports as well. Considering these arguments, China could request an age limit of 30 months or less simply because this is the prevailing arrangement the U.S. agreed to with our other major trading partners. We reluctantly accepted the non-scientific restriction to keep U.S. beef products flowing to these important markets and that with the under 30-month age limit we still account for over 80 percent of U.S. domestic beef cattle slaughter.

Regarding pork, China is an excellent market for U.S. pork despite the long-standing ban on imports of pork exhibiting Ractopamine hydrochloride residues. I should note that the Codex Alimentarius Commission reaffirmed the safety of Ractopamine by adopting maximum residue level standards in July 2012 and the compound is approved for use in 26 countries. However, China's February 18, 2013 "Risk Warning Notice" No. 1 declares that importer/agents must provide a "non-Ractopamine residue test" when importing pork from the United States "…in order to protect consumer health."[1] It is well-known and documented that China has had problems with feed additives but mostly with the illegal and misuse of Clenbuterol in animal feed in China. Other incidents demonstrating the lack of rule of law or simply the unconscionable behavior and practices to gain from the introduction of melamine in baby formula or pet food in recent years are examples of how the Chinese government and public must resolve and address human and animal health scandals to protect their citizens. The growing emphasis on food safety, food security and sustainability is the direct result of these scandals and the agricultural production challenges China faces with its resource and environmental constraints.

In seeking to understand China's concerns about use of and standards for hormones, beta-agonists and other livestock production technologies one must consider China's cultural, social and economic perspectives. For example, I recall a lengthy discussion with one Chinese official about the importance of science and valid risk assessments in setting standards for international trade. After numerous arguments and positioning he finally said: "Perhaps our science is different than yours?" This ended our discussion of this topic, but I thought about his comment for days and tried to assess what it meant from a trade perspective.

In contemplation of this official's quote, I thought about the Chinese diet. For those who have traveled to or lived in China, the traditional cuisine is unlike anything available within the U.S. stateside and the regional cuisine is simply outstanding. Many would consider China's traditional diet as quite unusual with its emphasis on consumption of non-muscle cuts, offal, pig feet and jowls, chicken paws, wing tips and other "dark" meat boiled in a hot pot with vegetables and spices. It is from this perspective that Chinese officials make assessments and evaluate the safety of meat and other livestock products in terms

[1] General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Risk Warning Notice, 2013 Notice No. 1, "AQSIQ Notice on the requirement of non-Ractopamine residue test report for pork imports from the United States" dated February 18, 2013.

of, for example, feed additives and product exclusions. This explains why last year, following the Codex adoption of maximum residue levels (MRLs) for Ractopamine, China wanted to have additional research on feed additive residues in pig lung tissues. This is not an issue for us in the United States because we do not consume this product. This explains the "different science" and why we must be aware of potential cultural differences which, in the end, impact trade or are considered trade barriers. In some respects, the U.S. has much to gain by developing and maintaining open channels of communication, exchange of technical information and cooperative technical assistance programs to develop a greater understanding of the means to facilitate trade. Technical assistance and market development are not mutually exclusive but are complementary, even in China.

In addition, there is a nexus between domestic economic interests and broader trade issues. China is a market that is appealing and competitive to those exporting meat and poultry products. As noted earlier, this market holds the greatest potential for U.S. packer/processor exporters. Certainly, China's domestic pork, beef, poultry and dairy production drive or influence the demand for imported meat and livestock products just as it does in the United States and nearly every other market in the world. China monitors very closely the movement of meat and poultry supplies, the daily market trends and the resulting impact on wholesale and retail prices. Two of the most import factors driving economic and trade policy in China are the annual growth in gross domestic product and controlling food price inflation. As a centrally-planned economy, China is suited and positioned to play a role in managing inflationary pressures and now a stronger position in advancing its own trade position and strategy.

Regarding the last point, China perhaps has been the rule taker for many years in terms of adhering to or being forced to adhere to other standards and rules of trade. It some respects we can expect China to take a great leadership role in evaluating and trying to influence global trade standards, regulations and procedures which parallel China's domestic requirements. As China's stature and importance as a market has grown combined with its financial strength and reach we should expect China to be more prominent and strict in negotiating trade arrangements as long as it suits their interests.

Finally, with consideration for the recent leadership transition in China our key contacts in the livestock and poultry sectors and in the Chinese government agencies have not changed significantly. Most of the U.S. work on market access, regulatory affairs and trade policy in general involve the following agencies and departments: Administration of Quality, Supervision, Inspection and Quarantine (AQSIQ—equivalent to the Food Safety and Inspection Service, parts of the Agricultural Marketing Service, parts of the Food and Drug Administration and Customs and Border Patrol), the Ministry of Agriculture, the Ministry of Health, the National Development and Reform Commission and the Ministry of Commerce.

To address the meat and poultry market access issues described above, the U.S. Congress should consider the following:

- Recognize the growing importance of exporting and the development of export markets in maintaining the long-term viability and growth of the U.S. livestock, meat and poultry sector.

- Support U.S. participation in international standard setting organizations such as the Codex Alimentarius and the World Organisation for Animal Health (OIE);
- Ensure that U.S. Government agencies and departments involved in market access and trade negotiations are staffed with professionals who understand the U.S. livestock, meat and poultry sector;
- Ensure that the U.S. Department of Agriculture's Food Safety and Inspection Service and Foreign Agricultural Service have adequate resources to regularly meet and engage with appropriate Chinese officials to facilitate communication and strive to remove barriers to U.S. exports;
- Ensure that USDA meat and poultry technical experts are included in all discussions and meetings with Chinese officials on meat market access issues; and,
- Ensure that USDA is afforded the license to create and base our own trading rules, standards and practices on sound science in a timely manner to meet the needs of our trading partners and hold them to these high standards as well.

The opportunities are great and through collaboration and dialogue, the U.S. and China can benefit greatly. Again, thank you for this opportunity and I welcome any questions.

OPENING STATEMENT OF PATTY LOVERA
ASSISTANT DIRECTOR, FOOD & WATER WATCH

MS. LOVERA: Hi. Good morning. My name is Patty Lovera, and I'm the Assistant Director of Food & Water Watch, which is a nonprofit consumer advocacy organization. I appreciate the opportunity to present testimony to you on this important topic.

I'm here to talk a little bit more about a topic we haven't heard as much about, which is food coming in from China, but on reflection of what we were hearing a lot about this morning, I do want to make one note about kind of the comparative advantage of U.S. production going to China.

I met with some folks last night. We have a lot of relationships with community groups and family farm groups, and this issue came up. They wanted to know why I was here in Iowa, and when they heard what the topic was, they didn't put it in terms of comparative advantage, but they asked me to tell you it is not without controversy to ramp up hog production in Iowa.

There is lots of controversy with the manure situation here, the waste situation here. EPA and the state have a lot to say to each other about this. So it's not without controversy to ramp up hog production in a place like Iowa that already has a tremendous concentration of that industry to export it to another country. So on their behalf, I did want to bring that.

To shift to the import side, I'll also just note that a few years ago when you went to New Orleans to talk about seafood, my colleague Patrick Woodall testified. So I'm not going to spend too much time talking about seafood, but China is obviously a big player there, and those concerns are all still there.

HEARING CO-CHAIR SLANE: He really scared us.

MS. LOVERA: It's still all relevant. Maybe the numbers have changed a little bit, but the concerns are all still there on seafood.

And then finally I do need to, before I dive into China specifically, we spend lots of time thinking about U.S. food safety standards. There's plenty of work to be done there, but because this is about China, I'm going to talk about that.

But we do need to be talking, keeping in mind that we often hear about the need to increase trade, which is code for increase imports, as an excuse to change our U.S. standards, and as a consumer advocacy group, that really, really, really, really concerns us, especially in an age where we're constantly fighting for budgets, to preserve budgets for food safety protections, and we are hearing trade being used as a wedge to try to lower U.S. standards. So that's the context that we're working, and I just need to point that out.

I submitted more in-depth testimony. It has a lot of numbers and a lot of examples so I'm not going to belabor those. But the one thing I do want to point out is in addition to what we've heard about how much food we are and will send to China, we are also bringing an increasing amount of food in from China. China is the world's leading producer of a lot of things that Americans eat: apples;

tomatoes; potatoes; garlic. The list does go on and on, and they're increasingly making processed food and the ingredients we use to make processed food.

So there're many, many examples of food safety problems that have been in the headlines over the years. Probably the most famous is melamine, which got a lot of attention here due to problems in pet food, but that really just turned out to be kind of the tip of the melamine iceberg. There was a following scandal in the domestic market in China for infant formula, which is incredibly serious and still has repercussions, and those have been pretty widely covered, but they're not the only ones.

So if you monitor these issues just in the media without going to China or doing anything else, you see constant stories, and they range from smuggling and mislabeling, so honey, the U.S. honey industry has a huge issue with products from China. Transshipping, so things that are starting in China but not being labeled or indicating they're coming from there, either to avoid tariffs or avoid some kind of food safety restriction. And then flat-out contamination residues, you know, food safety problems that get discovered in whatever export market they land in.

So those go on and on and on, and I put some examples in our testimony, and you can find many others easily just on the Internet.

But to talk a little bit about what we're importing, the numbers are going up. Fruits and vegetables make up most of what we're importing from China at this point, followed by fresh, frozen and processed fish and seafood products, and we do want to point out that this does have an impact on what we grow here. This is not all in addition to what U.S. farmers are producing. It can be a substitution, and we've seen that in some very specific crops. Some of the numbers are best in things like garlic and apples. We import a lot of apple juice concentrate from China.

So, increasingly, we're seeing more processed food ingredients so China is now a leader in things like vitamin C, sweeteners. They're making more candy. They're making more processed foods that you wouldn't even necessarily look for or think about China being a producer of, and, importantly, in the consumer experience, those are things that do not get a label with their origin.

We have labeling laws about raw commodities or unprocessed meat and fruit and things like that. We don't have it for where the vitamin C in that drink came from or the sweetener in that candy, and that's a real gap for consumers in terms of what they want to do if they're hearing these stories and how they want to protect themselves.

So in terms of how well the United States is regulating the safety of food imports from China, the answer is not very. I talk more about it in the written testimony, but just a couple of examples. Obviously, we have a split system. The USDA is in charge of meat and poultry. The FDA is in charge of basically everything else. We spend a lot of time in this context thinking about the FDA because those are the products that are coming in at this point from China, and for all imports coming into the U.S., they're able to look at less than

two percent as they enter the United States.

And when it comes to their presence in China, they're relatively new in the country, and in fiscal year 2012, they conducted ten inspections of food facilities. So we just think that there's an enormous amount to do in terms of our domestic standards and what our domestic regulators are able to do for protecting U.S. consumers for food coming in.

We've heard a little bit about poultry. I have a longer example in my written testimony. We're also talking about importing poultry from China in addition to this issue of do we have access to their market, and this is a very classic example of what we think is the trades that happen to increase trade. So there was a lot of conversation that has been going on for almost a decade. There's a lot of back and forth, and a lot of it boils down to market access for U.S. beef and whether we will take Chinese chicken in exchange.

The track record of the industry in China is not good. USDA has done audits and visits. Every time they do it, disturbing things come up, and this has been a long drawn-out process. We are not yet importing poultry from China, but USDA is still working through that process and says as soon as this fall, they could make the decision to approve China as an approved exporter for poultry products.

Quickly, just because I'm running out of time, we're also increasingly worried about an overreliance on third-parties to solve this problem. I have an example in the written testimony about organic food. It's not to bash on organic, but it's because organic is a system that relies on third-parties. There have been problems with dealing with those third-parties in China, and the new food safety law from the FDA is really putting a lot of emphasis on using third-parties as a way to protect U.S. consumers when it comes to imported food. So there're a lot of warnings there, and there's a lot to figure out.

So I'll just say to wrap up, we really think that we have to be figuring out ways not to decrease our domestic standards, resources to enforce those standards and do inspections, and also in the very, very short-term, consumers are aware of these problems. U.S. consumers don't have confidence in food from China, and that's probably pretty warranted from what we can tell, but at the same time, their ability to avoid that food is limited if we dial back things like Country of Origin Labeling, and there are battles going on about what tools consumers have to know where their food is from.

PREPARED STATEMENT OF PATTY LOVERA
ASSISTANT DIRECTOR, FOOD & WATER WATCH

Testimony before the U.S.-China Economic Security and Review Commission
Hearing on China's Agricultural Policy and U.S. Access to China's Market

Patty Lovera
Food & Water Watch

April 25, 2013

My name is Patty Lovera, and I am the assistant director of Food & Water Watch, a nonprofit consumer advocacy organization. Thank you for the opportunity to present testimony on this important topic.

Introduction

The United States is increasingly reliant on imported food. The U.S. Government Accountability Office (GAO) reports that from 2000 through 2011, the percentage of food consumed in the United States that was imported rose from 9 percent to over 16 percent, and food imports increased by an average of 10 percent each year for seven years.[1] According to the U.S. Department of Agriculture's (USDA) Economic Research Service, the food groups with the highest share of imports are fresh fish and shellfish (85 percent in 2009) and fruits and nuts (38 percent in 2009).[2]

China is a growing supplier of the United State's food imports. China is the largest agricultural economy in the world and one of the biggest agricultural exporters.[3] It is the world's leading producer of many foods Americans eat: apples, tomatoes, peaches, potatoes, garlic, sweet potatoes, pears, peas — the list goes on and on.[4] It is also a leading producer of many of the inputs used to make processed food, for example ascorbic acid, or vitamin C, producing about 80 percent of the world supply.[5]

But the poorly controlled expansion of China's economy has often been fueled by excess pollution, treacherous working conditions, and dangerous foods and products that pose significant risks to consumers in China and worldwide. China's food manufacturers often found to cut corners and

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[1] U.S. Government Accountability Office. "Food Safety: FDA Can Better Oversee Food Imports by Assessing and Leveraging Other Countries' Oversight Resources." GAO-12-933. September 2012 at 1 and 5.
[2] U.S. Department of Agriculture Economic Research Service (USDA ERS). Table 1 – Import Shares of US food consumption using the volume method. May 30, 2012. Available at http://www.ers.usda.gov/topics/international-markets-trade/us-agricultural-trade/import-share-of-consumption.aspx#import. Accessed April 22, 2013.
[3] Lohmar, Bryan et al. USDA ERS. "China's Ongoing Agricultural Modernization." EIB-51. April 2009 at 1.
[4] United Nations Food and Agriculture Organization (UN FAO). FAOStat. Country rank in the world, by commodity (quantity): China. Based on most recent data available, 2008. Available at http://faostat.fao.org/. Accessed December 14, 2010.
[5] Barboza, David. "U.S. Court Fines Chinese Vitamin C Makers." *New York Times.* March 15, 2013.

substitute dangerous ingredients to boost sales.

Food safety problems in China have been making headlines around the world for quite a while, especially after several rounds of publicity concerning contamination of foods with a chemical, normally used to make plastic, called melamine. The chemical has been intentionally added to different food products in China, usually to try to artificially increase the nitrogen content in attempt to pass tests for protein levels.

In 2007, the U.S. Food and Drug Administration (FDA) received reports of 17,000 pet illnesses, including 4,000 dog and cat deaths, believed to be the result of melamine contamination in imported Chinese gluten used to make pet food.[6] Sixty million packages of pet food were recalled in the United States.[7] The potential health impacts were not necessarily limited to pet food, however, because some of the melamine-contaminated pet food was redirected to hog farms. Thousands of hogs that ate the contaminated food were put to death in an effort to keep melamine-contaminated meat from entering the food supply.[8] But the FDA and USDA still allowed 56,000 hogs that ate melamine-tainted pet food to be processed into pork, which was then sold at supermarkets.[9]

By 2008, the FDA had identified melamine in imported wheat gluten and rice protein from China (used in pet food), prompting rejections of 44 percent and 32 percent of these products, respectively.[10] While the FDA stopped these shipments, pet food imports from China continued to rise and reached 79 million pounds in 2010.[11]

Pet food turned out to be only the tip of the melamine iceberg. Because melamine was widely used in China to adulterate dairy products such as milk powder, processed food products including candy, hot cocoa, flavored drinks and, most tragically, infant formula contained the chemical.[12] An infant formula scandal erupted just before the 2008 Beijing Olympics and ultimately an estimated 300,000 infants and children in China were sickened by melamine; more than 12,000 were hospitalized.[13] At least six children died.[14]

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[6] "Mix of chemicals may be key to pet-food deaths." *CNN.* May 1, 2007; U.S. Government Accountability Office. "Food and Drug Administration Overseas Offices have Taken Steps to Help Ensure Import Safety, but More Long-Term Planning is Needed." GAO-10-960. September 2010 at 1.
[7] Barboza, David and Alexei Barrionuevo. "Filler in Animal Feed is Open Secret in China." *New York Times*. April 30, 2007; Barboza, David. "Discovery of Melamine-Tainted Milk Shuts Shanghai Dairy." *New York Times*. January 2, 2010.
[8] "Mix of chemicals may be key to pet-food deaths." *CNN.* May 1, 2007.
[9] Barboza, David. "An Export Boom Suddenly Facing a Quality Crisis." *New York Times*. May 18, 2007; USDA. Press release. "Joint Update: FDA/USDA Update on Tainted Animal Feed." Release No. 0121.07. March 2, 2007.
[10] Gale, Fred and Jean Buzby. USDA ERS. "Imports from China and food safety issues." Economic Information Bulletin No. 52. July 2009 at 10.
[11] U.S. Department of Agriculture Foreign Agricultural Service (USDA FAS). Global Agricultural Trade System (HS-10: 230100090, 2309100010.)
[12] Food and Drug Administration. Public Health Focus: Melamine Contamination in China. January 5, 2009. Available at http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm179005.htm.
[13] Ee Lyn, Tan. "China eyes milk test after melamine deaths scandal." *Reuters.* June 15, 2010; Peterkin, Tom. "China milk scandal: 53,000 children fall ill from contaminated milk powder." *The (London) Telegraph*. September 22, 2008.
[14] Ee Lyn. June 15, 2010.

Melamine-tainted milk was also exported worldwide. The New Zealand-based food company Fonterra became caught up in the melamine scandal through a joint venture with the Chinese dairy company Sanlu that was implicated in the melamine crisis.[15] The scandal played out across the globe, ending up in the food supplies of companies including Mars, Unilever, Heinz, Cadbury and Yum! Brands, Inc. (which owns Pizza Hut, KFC, Taco Bell and other fast food chains).[16]

While the melamine crisis may be the most widely covered Chinese food safety scandal, unfortunately it was not an isolated incident. International media sources routinely cover food safety problems originating in China, ranging from widespread smuggling of products like honey to avoid tariffs and food safety restrictions,[17] mislabeled products "transshipped" through another country but produced in China,[18] and importing countries discovering violations of pesticide or other food safety regulations.

A 2013 report by a food industry analyst found that among reported food violations in Chinese products, the most frequent cause was pesticides, followed by pathogen contamination. The report cited 32 pesticides found in laboratory testing of Chinese foods, mostly in produce, fruit and spices and noted that "economically motivated adulteration" is a persistent issue in food production in China.[19]

These food safety problems have not gone unnoticed by consumers in the United States or China. After more than a decade of increased food imports from China, U.S. consumers are extremely wary, with one 2011 poll revealing that participants picked China 81 percent of the time when asked to choose two countries they perceived as having the least food safety oversight.[20] Chinese consumers are not much more confident about their domestic food supply. A 2011 survey found that food safety is a major concern for almost 70 percent of Chinese consumers[21] and there are regular reports of Chinese tourists emptying store shelves in Taiwan and other countries in search of infant formula not produced in China.

One tool that U.S. consumers do have is labeling. Thanks to federal labeling requirements, country of origin labeling is required for beef, pork, lamb, chicken, goat meat, wild and farm-raised fish and shellfish, perishable agricultural commodities (fruits and vegetables), peanuts, pecans, ginseng, and macadamia nuts. But these labeling rules do not apply to processed forms of these foods, and the USDA's definition of processing is far too broad, which excludes many foods from the labeling

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[15] Spears, Lee and Helen Yuan. "China withdraws milk as Fonterra decries Sanlu delay." *Bloomberg News*. September 24, 2008.
[16] Spencer, Richard. "China tainted milk scandal: Heinz and Mars drawn in." *The (London) Telegraph*. September 30, 2008; "Melamine found in Cadbury goods." *BBC*. September 29, 2008; "Melamine found in more Chinese-made food products." *New York Times*. September 26, 2008; Koo, Heejin. "South Korea orders Mars, Nestle to recall products." *Bloomberg News*. October 4, 2008; YUM! Brands. U.S. Securities and Exchange Commission. SEC filings 10-k. 2007 at 3.Spencer. *The (London) Telegraph*.
[17] US Honey Makers Take a Swat at Chinese Smugglers. Andrew Schneider. AOL News. May 6 2010.
[18] Murphy, Joan. "Anti-dumping probe links large China shrimp exporter to transshipment." *Food Chemical News*. September 28, 2012.
[19] Food Sentry. Preliminary Analysis of International Food Safety Violations. Available at http://www.foodsentry.org/preliminary-analysis-of-international-food-safety-violations/. Accessed April 22, 2013.
[20] Baertlein, Lisa. "U.S. Shoppers Wary About China Food Safety: Survey" *Reuters.* January 19, 2011.
[21] "Nearly 70% of Chinese Consumers Do Not Trust Food Safety." *Arirang News.* January 3, 2011.

requirement. The U.S. rules for labeling meat have also been challenged at the World Trade Organization (WTO), resulting in a process of revising the rules that is ongoing.

1. What are our principal food imports from China? How big a role do they play in our food consumption?

After joining the World Trade Organization in 2001, China's food exports to the United States tripled to 4.1 billion pounds of food in 2012.[22] In addition to Chinese firms exporting to the United States, U.S. food and agribusiness companies have capitalized on China's cheap labor costs and weak regulations, hoping to sell to a growing class of Chinese consumers and export to the United States.

Total U.S. food imports from China fell during the economic recession, but over the past four years, imports have increased by about 250 million pounds, a 7 percent increase from 2009 to 2012.[23] Fruits and vegetables (primarily frozen and processed) make up most of the U.S. imports from China, amounting to 1.6 billion pounds and 41 percent of imported food products. 1.2 billion pounds of fresh, frozen and processed fish and seafood products made up about a third of imports (30 percent.)[24]

Most Chinese exports to the United States are fruits and vegetables that can be harvested and processed with lower labor costs in China than elsewhere,[25] undercutting U.S. farmers. As the world's largest apple producer, for example, China's apple juice concentrate exports supply a growing share of American's apple juice. By 2007, half the garlic Americans ate was grown in China, although that figure fell to 31 percent in 2011 as the recession and falling dollar dampened import demand.[26] Before China entered the WTO, the United States produced about 70 percent of the garlic Americans consumed.[27] Over the past decade, imports of Chinese garlic more than quadrupled, while U.S. garlic cultivation dropped by a third.[28]

The millions of pounds of imports from China represent a considerable portion of the food eaten by U.S. consumers. For example, in 2011:

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[22] USDA FAS. Global Agricultural Trade System. Available at www.fas.usda.gov/gats/. (Food includes consumption imports of meat; fish & seafood; dairy; vegetables, fruits & nuts, coffee, tea & spices; cereals, oil seeds; fats; meat & fish preparations; sugar & confectionery; cocoa; cereal & dairy preparations; vegetable & fruit preparations; and miscellaneous edible preparations contained in two-digit harmonized codes: HS-2: 02, 03, 04, 07, 08, 09, 10, 11, 12, 15, 16, 17, 18, 19, 20, 21, 22.)

[23] USDA FAS. Global Agricultural Trade System database for meat; fish & seafood; dairy; vegetables; fruits & nuts; coffee, tea & spices; cereals, flours and oilseeds; fats; meat and fish preparations; sugar and confectionary.

[24] USDA FAS. Global Agricultural Trade System.

[25] Gale, Fred et al. USDA Economic Research Service (ERS). "Investment in Processing Industry Turns Chinese Apples Into Juice Exports." FTS-344-01. October 2010 at 3.

[26] Gale and Buzby. USDA ERS. (2009) at iii; USDA FAS. Global Agricultural Trade System. USDA FAS GATS database; USDA ERS. Vegetable and Melon Yearbook 2011 and Fruit and Tree Nut Outlook 2012.

[27] USDA ERS. Fruit and Tree Nut Outlook Yearbook. 2010 at Table 16.

[28] USDA FAS. Global Agricultural Trade System. (Garlic, HS-10: 0703200020, 0703200010, 0712904040, 0712904020); USDA ERS. Vegetables and Melons Yearbook Data. 2009 (Updated May 20, 2010) at Table 5.

- Eighty percent of the tilapia Americans ate came from the 382.2 million pounds of imports from China.
- The United States imported 367 million gallons of apple juice from China, amounting to almost half (49.6 percent) of U.S. consumption.
- The 70.7 million pounds of cod imported from China amounted to just more than half (51 percent) of U.S. consumption.
- The 217.5 million pounds of imported garlic was 31.3 percent of U.S. consumption.
- The 39.3 million pounds of frozen spinach represented 11 percent of U.S. consumption. (For more import quantities, see chart in Appendix I.)

Other Chinese exports include processed foods and food ingredients, products which most consumers purchase without considering where they came from. China is a leading supplier to the United States of ingredients like xylitol, used as a sweetener in candy, and sorbic acid, a preservative.[29] China supplies around 85 percent of U.S. imports of artificial vanilla, as well as many vitamins that are frequently added to food products, like folic acid and thiamine.[30] By 2007, 90 percent of America's vitamin C supplements came from China, and by 2010, China supplied the United States with 88 million pounds of candy.[31] The United States also imported 102 million pounds of sauces, including soy sauce; 81 million pounds of spices; 79 million pounds of dog and cat food; and 41 million pounds of pasta and baked goods from China in 2010.[32]

2. How well is the United States regulating the safety of its food imports from China, both in the United States and on the ground in China?

U.S. oversight of Chinese food processors has not remotely kept pace with the growth in imports. Though the Food and Drug Administration prevented 9,000 unsafe Chinese products from entering the country between 2006 and 2010,[33] it is not because of vigilant inspection at U.S borders and ports. The agency's low inspection rate — less than 2 percent of imported produce, processed food and seafood[34] — almost guarantees that unsafe Chinese products are making their way into American grocery stores.

In 2007, the FDA's director of the Center for Food Safety and Applied Nutrition stated that the growing Chinese food exports have "outstretched and outgrown the regulatory system for imports in the U.S."[35] During the melamine-tainted pet food crisis, it took the FDA one month to even identify their regulatory counterparts in China.[36]

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[29] Lee, Don. "China's additives on menu in U.S." *Los Angeles Times*. May 18, 2007.
[30] USDA FAS. Global Agricultural Trade System. (HS-10: 2912410000); Lee (2007).
[31] USDA FAS. Global Agricultural Trade System. (HS-6, 170490); Johnson, Tim. "China corners vitamin market." *Seattle Times*. June 3, 2007.
[32] USDA FAS. (HS-4, 1902 and 1905; HS-4, 2103; HS-10, 2309100090, 2039100010.)
[33] FDA. Import Refusal Database. Available at www.accessdata.fda.gov/scripts/importrefusals/. Accessed January-February 2011.
[34] FDA. Combined Field Activities – ORA. Program Activity Data. Field Foods Program Activity Data.
[35] MacLeod, Calum. "China details new food-quality measures." *USA Today*. September 13, 2007.
[36] GAO (2010) at 12.

In 2007, China consented to allow FDA inspectors to be stationed in China, and the FDA opened its first office in 2008.[37] However, the few FDA inspectors in China were overwhelmed by the sheer size of the nation's food production, including an estimated 1 million food-processing companies.[38] Between 2001 and 2008, the FDA inspected 46 food firms in China — less than six a year.[39] After the spate of import scandals, the FDA increased inspections, but still only conducted 13 food inspections in China from June 2009 to June 2010.[40] In fiscal year 2012, FDA conducted 10 inspections of food facilities in China.[41]

Poultry

The USDA's actions with regard to China's interest in exporting poultry products to the United States offers a telling example of how the pressure to increase trade can leave food safety concerns as a lower priority. Currently, the United States does not permit poultry imports from China. U.S. agribusinesses have invested heavily in Chinese chicken production and processing – both to feed Chinese consumers and as a future export platform to U.S. consumers – and they have been working to get USDA approval for Chinese poultry exports to the United States.

In 2006, the USDA rapidly finalized China's request to begin exporting processed chicken to the United States the very same day as a visit from China's president.[42] This action apparently prompted China to resume negotiations over lifting its ban on American beef, instituted in 2003 after the discovery of mad cow disease in Washington.[43]

Despite the Bush Administration's public blessing of Chinese chicken, the USDA's internal inspection reports of Chinese poultry facilities showed egregious food safety problems, including mishandling raw chicken throughout the processing areas, failing to perform *E. coli* and *Salmonella t*esting, and routinely using dirty tools and equipment.[44] As these internal reports emerged, Congress refused to implement the Bush Administration proposal, effectively maintaining a ban on Chinese poultry imports.[45]

China contended the U.S. prohibition against chicken, produced in unsafe plants with insufficient inspection, was an illegal trade barrier. The World Trade Organization agreed in September 2010.[46] The

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[37] Weisman, Steven. "China agrees to post U.S. safety officials in its food factories." *New York Times*. December 12, 2007; Zhe, Zhu. "U.S. food, drug agency opens Beijing office." *China Daily*. November 20, 2008.
[38] Lohmar, Bryan et al. USDA ERS. "China's Ongoing Agricultural Modernization." EIB-51. April 2009 at 24.
[39] Shames, Lisa. "Food Safety: FDA Could Strengthen Oversight of Imported Food by Improving Enforcement and Seeking Additional Authorities." GAO-10-699T. Testimony before the Subcommittee on Oversight and Investigations, U.S. House of Representatives Committee on Energy and Commerce. May 20, 2010 at 5.
[40] GAO. (2010) at 17.
[41] FDA. Combined Field Activities – ORA. Program Activity Data. Field Foods Program Activity Data.
[42] Quaid, Libby. "U.S. to allow processed poultry shipments from China." *Associated Press*. April 20, 2006; 71 Fed. Reg. 20867–20871.
[43] Quaid. April 20, 2006; "U.S. tries to sell beef to China amid food disputes." *Reuters*. June 29, 2007.
[44] USDA Food Safety and Inspection Service. "Final report of an initial equivalence audit carried out in China covering China's poultry inspection system." May 17 2005 at 9-11.
[45] Pub. L. 110-161. Title VII. §733.
[46] World Trade Organization. "United States—Certain Measures Affecting Imports of Poultry from China: Report of the

same month, China announced it would impose high tariffs on American chicken products for allegedly being priced too cheaply.[47]

In January 2011, Chinese President Hu Jintao again visited the United States, cementing tens of billion of dollars in trade deals with the Obama Administration.[48] Shortly after this visit, the USDA announced new steps it had taken to honor China's request to export chicken to the United States.[49] Currently, the USDA's Food Safety and Inspection Service is working through the steps to approve China as an exporter of poultry products to the United States, with the next step in the approval process expected to be completed in the fall. This process continues to proceed, even as the poultry sector in China is suffering mounting economic damage from a growing avian influenza outbreak.[50]

Organic and Third Party Certification

Organic products from China have not been immune from food safety concerns. Organic beans and berries imported from China have been rejected by the FDA for high pesticide levels, despite the fact that synthetic pesticides are not allowed under the USDA organic label.[51] More recently, testing conducted by U.S. media outlets found pesticide contamination of an organic ginger product sold in the United States.[52]

According to USDA's National Organic Program, from 1995 to 2006, the value of organic food exported from China rose from $300,000 to $350 million and vegetables, field crops and tea were China's largest organic exports.[53] In 2006, there were 496 operations in China certified as meeting U.S. organic standards and by 2010 that number had risen to 649 operations.[54]

In the United States, the USDA sets organic standards and third party certifiers are responsible for inspecting farms and food processors to ensure they are meeting the standards. In 2010, the USDA visited China to conduct an audit of four of the ten certifiers operating there. The agency reported that conditions "pose challenging oversight duties and responsibilities for certifying agents operating in China. Additionally, the size of China's land mass and higher financial margins in the organic industry could pose potential for fraud, especially by those outside of the organic certification system."[55]

In 2010, USDA banned one of the third party certifiers operating in China because the organization used Chinese government employees to inspect state-controlled farms.[56] But the challenge of operating truly

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Panel." WT/DS392/R. September 29, 2010 at 183-184.
[47] "China to levy anti-dumping duty on U.S. Poultry." *Bloomberg News*. September 26. 2010.
[48] Oliphant, James. "Obama and Hu Jintao pledge cooperation, downplay differences." *Los Angeles Times*. January 19, 2011
[49] Bottemiller, Helena. "USDA Petitioned to Block Chinese Poultry." *Food Safety News*. January 31, 2011.
[50] UPI. "China avian flu hits poultry sector, losses mount." April 16, 2013.
[51] Gale and Buzby (2009) at 17.
[52] Clapp, Stephen. "USDA bans organic certification agency from operating in China." *Food Chemical News*. June 21, 2010.
[53] U.S. Department of Agriculture National Organic Program (USDA NOP). "2010 Organic Assessment of China." July 2011 at 3.
[54] USDA NOP (2011) at 4.
[55] USDA NOP (2011) at 9.
[56] Clapp, Stephen. (2010).

independent third party auditing or inspection operations in China is not isolated to organic certification.

The FDA Food Safety Modernization Act, which became law in January 2011, instructs the FDA to establish a reliable system of audits conducted by foreign governments or other third parties for imported foods. A 2012 GAO report outlines the significant obstacles to doing this.[57] FDA has struggled in the past to oversee inspection activities conducted on contract to the agency by state governments,[58] a task that should be much simpler than coordinating with third parties and foreign governments around the world. To build the infrastructure and IT system necessary to oversee third party certifiers in countries such as China, where third parties and even government agencies must be accredited by another government agency,[59] seems like it will be an extraordinarily challenging project for the agency.

3. Since adopting its new Food Safety Law in 2009, has China substantially improved its food safety? Does the quality of food safety regulation vary by region or sector?

Chinese officials have readily acknowledged the country's food system as "grim."[60] The country's decentralized and overlapping regulatory system has not been able to address China's sprawling food-processing industry. Repeated government efforts to reform food safety rules have so far failed to stem the tide of adulterated food. After a major food safety law from 2009 went into effect, a professor at the Chinese Academy of Governance stated that poor coordination between agencies, lackluster enforcement and inadequate government oversight hindered the enforcement of food safety laws.[61] It remains to be seen if an overhaul of the food safety system, announced in 2012, will manage to coordinate efforts government-wide and tighten food safety standards.[62]

The situation for Chinese consumers can be more dire than what U.S. and other export customers face. China usually exports the highest-quality food the country produces, leaving Chinese consumers vulnerable to the lower-quality products that remain.[63]

Reports on food safety problems since 2009 yield a long list of problems in both the domestic food supply and exported products. One persistent trend is "economically motivated adulteration," or what has been described as a culture of adulteration in China's agricultural sector.[64] Melamine contamination in Chinese food continues to be a problem, with a crackdown on melamine in milk powder in 2010 resulting in 96 arrests and 26 public officials being fired[65] and U.S. regulators finding high levels of melamine in a dog food shipment in January 2011.[66] After increased attention to the problem of

[57] GAO (2012).
[58] GAO (2012) at 25.
[59] GAO (2012) at 19.
[60] "Food safety situation still grim in China." *Associated Press*. March 3, 2009.
[61] "Chinese lawmakers call for enhancing supervision of food safety." *Xinhua*. February 25, 2010.
[62] "China Releases Five Year Food Safety Plan." *Food Safety News.* June 18, 2012.
[63] Bodeen, Christopher. "Here we go again: China denies food safety issues." *Associated Press*. May 23, 2007.
[64] Barboza and Barrionuevo (2007).
[65] "96 arrested in China for selling adulterated milk powder." IANS. January 13 2011.
[66] FDA. Import Refusal Report Database. Refusal Actions by FDA as Recorded in OASIS for China. January 2011. Accessed March 2, 2011 with code 72BCT99.

melamine, some Chinese dairy producers appear to have switched to a new protein adulterant that is even more difficult to detect — hydrolyzed leather protein made from scraps of animal skin.[67]

Even veterinary drugs banned in China — such as clenbuterol, administered to animals to give them leaner meat and pinker skin — remain widely used in China despite years of documented consumer illnesses from residues in meat and organs,[68] and controversies over athletes avoiding meat for fear of testing positive for the performance enhancing drug.

Honey from China has continued to be a source of controversy. Illegal antibiotics are commonly found in Chinese honey imports. China dominates the international honey market and became the largest U.S. honey source after joining the WTO, supplying more than 70 million pounds by 2006.[69] For years, regulators had closely scrutinized Chinese honey for drug residues, including one that can be fatal.[70] In 2010, the FDA seized large amounts of Chinese honey after finding illegal antibiotics.[71]

Another trend is pesticide residues that remain on fruit, vegetables and processed foods when they enter the food supply. In 2010, Chinese authorities found a banned, highly toxic pesticide in cowpeas, a legume similar to black-eyed peas.[72] China has largely failed to address illegal or dangerous chemical residues on food, evident in its weak maximum residue levels. The United States has established maximum residue levels (MRLs) for 77 pesticides used in garlic production and 112 pesticides used in apples orchards; of these, China has only 2 and 23 MRLs, respectively.[73]

Since 2009, the Chinese government has made a point of making public displays of enforcing food safety rules, inspecting food facilities and punishing people connected with tainted food. News reports frequently reference millions of inspections of facilities and frequent "crackdowns" on particular products. A search of news reports reveals a variety of enforcement efforts:

- The scandal over melamine-contaminated infant formula led to the execution of two people and prison terms for dairy company executives. [74]
- In 2011, industry and commerce authorities reported 62,000 cases of substandard food, leading to 43,000 unlicensed operations being shut down and 251 cases being sent to the judicial system. [75]
- A 2011 crackdown on food safety violations resulted in 2,000 arrests and 4,900 businesses being closed.[76]

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[67] Olesen, Alexa. "China warns dairy producers inspectors watching for toxic melamine and leather protein in milk." *Associated Press*. February 17, 2011.
[68] Olesen, Alexa. "Skinny pigs, poison pork: China battles farm drugs." *Associated Press*. January 24, 2011.
[69] USDA FAS. (HS-10: 04090000); FAO STAT. Country rank in the world, by commodity (quantity): China. Based on most recent data available, 2008. Accessed December 14, 2010.
[70] Schneider, Andrew. "Country of Origin no Guarantee on Cheap Imports." *Seattle Post-Intelligencer.* June 5, 2009.
[71] Fulton, April. "FDA seizes tainted Chinese honey after Sen. Schumer raises fuss." *National Public Radio*. June 11, 2010.
[72] Wong, Edward. "Officials in China at odds over food scandal." *New York Times*. March 2, 2010.
[73] USDA FAS. International Maximum Residue Levels Database. Available at www.mrldatabase.com/. Accessed March 2011.
[74] "China vows harsh penalties for food safety crimes." Associated Press. September 16, 2010.
[75] "62,000 illegal food cases in 11 months of 2011." Xinhua. January 10, 2012.
[76] Ramzy, Austin. "China Food Safety: Big Crackdown, but Big Concerns Remain." *Time.* August 5, 2011.

- The Chinese news agency Xinhua reported in June 2012 that authorities shut down 5,700 unlicensed food businesses and discovered 15,000 cases of "substandard food" so far that year.[77]

Ironically, the recent discovery of more than 7,000 dead pigs in the Huangpu River was actually described in some media reports as "an encouraging step forward in Chinese public health," because it indicated that rather than sell diseased animals into the food supply, producers dumped them into the river instead.[78]

But despite the concerted effort to show that the government is tough on food safety violators, problems persist. A small sample of recent food safety problems:

- In 2010, a scandal erupted over the use of food coloring and bleach to plump up shriveled old peas so they would appear fresh.[79]
- Authorities detected plasticizers, chemicals linked to immune and reproductive system damage, in samples of a leading brand of a common distilled white liquor.[80]
- Testing by Greenpeace of 18 varieties of tea found that every sample contained at least three different kinds of pesticides. 12 of the samples showed traces of banned pesticides.[81]
- In September 2012, FDA refused 10 shipments of canned mushrooms from China due to pesticide contamination, resulting in the Chinese government halting exports of canned mushrooms to the United States.[82]
- China Central Television reported in 2012 that testing of preserved fruit from 16 different companies found excessive pigments, bleaching agents and preservatives, as well as incorrect expiration dates.[83]
- The Xinhua News Agency reported in 2012 that wholesale vegetable dealers in Shandong province were found spraying cabbages with formaldehyde, presumably to preserve them during transport without refrigeration.[84]
- A 2012 report noted that fish vendors in Beijing were using a chemical used for temporary dental fillings to tranquilize fish during transport. [85]

Another recurring theme is lack of transparency. China's food safety enforcement system lacks the transparency necessary to warn the public about dangerous products or deter dangerous food-processing practices. The USDA reports that the Chinese government zealously guards the food safety data it collects, making it difficult to impartially evaluate China's food safety performance.[86] In 2010, some officials criticized regional authorities that publicized a widespread case of pesticide adulteration rather than obeying the "unspoken rule" of keeping food safety problems hidden from the public.[87] The father

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[77] McDonald, Mark. "From Milk to Peas, A Chinese Food-Safety Mess." *International Herald Tribune.* June 21, 2012.
[78] David Barboza. "A Tide of Death, but This Time Food Supply Is Safe." *New York Times.* March 14, 2013.
[79] Yan, Wang. "Fake green peas latest food scandal." *China Daily,* China. March 31, 2010.
[80] "China media: Chinese liquor scandal." *BBC News*. November 22, 2012.
[81] Greenpeace. "Pesticides: Hidden Ingredients in Chinese Tea." 2012 at 1-2.
[82] Booth, Amy. "Residue concerns keep Chinese canned mushrooms off U.S. market." *Food Chemical News.* November 23, 2012.
[83] "Preserved fruit in China Tainted." *The New Paper*. April 30, 2012.
[84] "Chinese sellers accused of spraying cabbage with formaldehyde." Associated Press. May 7, 2012.
[85] Zuo, Mandy. "Dental cement used to calm fish" *South China Morning Post*. March 22, 2012.
[86] Gale and Buzby (2009) at 4.
[87] Wong. March 2, 2010.

of one child sickened by melamine-tainted milk powder was jailed, and eventually paroled, for his activism on the issue.[88]

Lack of transparency is also evident in an ongoing problem with imported pet treats from China. Since 2007, thousands of American dogs have fallen ill or died after eating chicken jerky treats made in China. The FDA reports "from 2003, when China first approached the USDA about poultry exports, to 2011, the volume of pet food exports (regulated by the FDA) to the United States from China has grown 85-fold."[89] In August 2012, four months after visiting Chinese processing plants that export pet treats to the United States, the FDA published inspection reports that revealed that the factories refused to allow U.S. inspectors to collect samples for independent analysis.[90] Ultimately, testing done by the New York Department of Agriculture and Markets found contamination of some of the treats with residues of an undisclosed antibiotic, triggering voluntary recalls of the products by the manufacturer.[91]

4. <u>In order to address the above issues, what are the best policies for the United States to adopt going forward?</u>

The WTO's Agreement on Agriculture has been a failure for farmers in the United States and has encouraged the growth of export platforms in places like China that benefit from low wages and weak regulatory standards, putting consumers around the world at risk. Congress and the Obama administration must revisit the current trade agenda to make public health, environmental standards and consumer safety the highest priorities when making decisions about trade policy. Specifically:

- The USDA should restart the process of determining if China's poultry inspection system is equivalent to the U.S. system and conduct an entirely new investigation before allowing Chinese poultry products to be exported to the United States.

- The USDA needs the resources to increase current levels of inspection of imported meat and poultry. If Chinese poultry products are approved for export to the United States, the USDA should permanently assign inspection personnel to China so that the exporting plants receive regular visits by USDA inspectors.

- The FDA needs the resources to effectively inspect the growing volume of food imports from China and other countries. Congress and the Obama Administration must instruct and provide adequate funding for the FDA to increase import inspections, and to increase the rigor of those inspections to include testing for pathogens and chemical, pesticide and drug residues, and to increase inspection of processed food ingredients.

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[88] MacLeod, Calum. "China's organic farms rooted in food safety concerns." *USDA Today.* January 24, 2011.
[89] FDA. "FDA Investigates Animal Illnesses Linked to Jerky Pet Treats." September 14, 2012. http://www.fda.gov/AnimalVeterinary/SafetyHealth/ProductSafetyInformation/ucm319463.htm
[90] Aleccia, JoNel. "China stiff-arms FDA on jerky pet treat testing, reports show." NBCnews.com. August 22, 2012.
[91] FDA. Recall—Firm Press Release. "Milo's Kitchen® Voluntarily Recalls Chicken Jerky and Chicken Grillers Home-style Dog Treats." January 9, 2013.

- The FDA needs the resources to conduct inspections in food facilities in China, rather than relying on third-party certifications of the safety practices used by exporting firms. The use of third-party certifications in China has already been shown to be questionable in the certification used for organic products and in pilot projects on aquaculture conducted by the FDA. This type of system should not be used as a substitute for safety inspection by U.S. government inspectors.

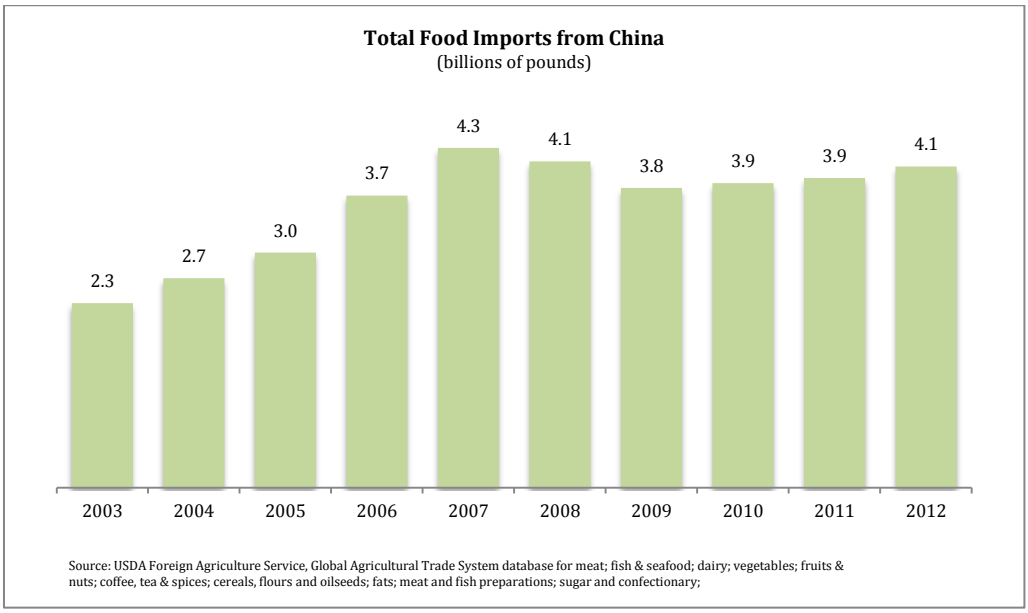
- The USDA should close the loopholes in the current country of origin labeling rules and expand them to processed meats, fruits and vegetables. Congress should also require mandatory country of origin labeling for foods not currently covered by existing law, to require basic manufacturing information about where, and by what company, processed foods were produced.

APPENDIX 1

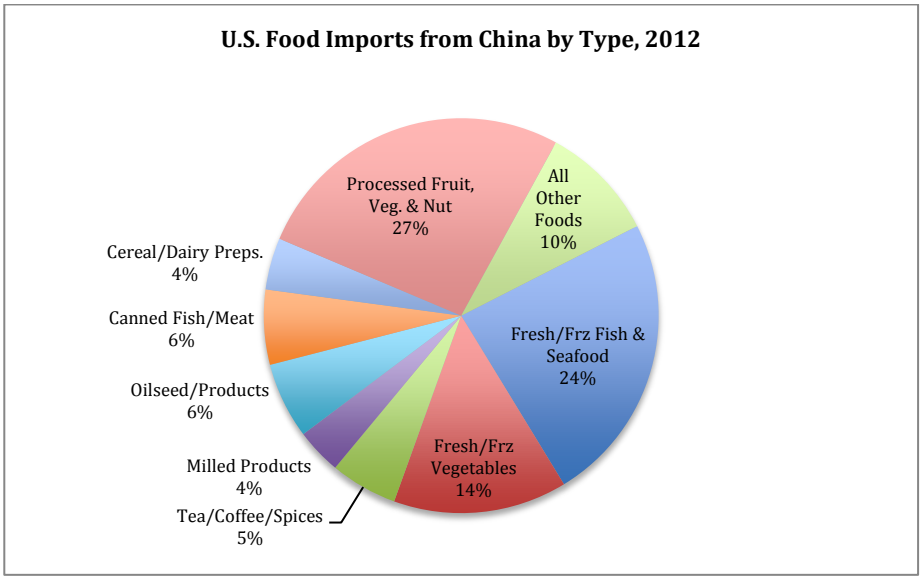
	U.S. Imports from China (Millions of Pounds)				Share of U.S. Consumption				
Food Product	2009	2010	2011	2012	2008	2009	2010	2011	4-Year Average
Tilapia	288.3	349.5	318.5	382.2	73.2%	77.8%	78.7%	80.2%	77.5%
Apple Juice (Mil. Gall.)	451.4	463.7	342.0	367.0	69.0%	70.0%	72.3%	49.6%	65.2%
Cod	63.2	71.4	78.9	70.7	59.4%	50.0%	50.4%	51.0%	52.7%
Mushrooms, Processing	78.1	78.6	68.2	68.4	53.7%	42.7%	22.4%	17.8%	34.1%
Garlic, All Uses	245.4	234.3	226.9	217.5	23.1%	22.8%	32.4%	31.3%	27.4%
Clams	17.0	19.8	24.1	27.4	9.0%	12.7%	19.0%	23.5%	16.1%
Spinach, Frozen	32.2	32.5	36.2	39.3	16.0%	21.5%	15.3%	11.0%	16.0%
Crab	18.9	23.7	22.9	22.9	15.0%	10.4%	13.5%	14.3%	13.3%
Salmon	71.4	88.1	86.4	72.7	10.8%	11.1%	14.4%	14.3%	12.7%
Peaches, Canned	91.8	109.8	92.0	98.5	11.8%	9.1%	9.0%	8.1%	9.5%
Cauliflower, Processing	11.1	8.9	1.3	8.1	12.0%	14.6%	7.8%	0.9%	8.8%
Shrimp	97.1	106.0	94.7	78.6	8.6%	7.8%	8.7%	7.3%	8.1%
Pineapples, Canned	65.2	52.7	40.6	26.2	9.7%	8.7%	7.1%	5.8%	7.8%
Pears, Canned	53.0	57.2	49.4	50.7	7.3%	7.0%	7.6%	8.1%	7.5%
Asparagus, Frozen	1.4	1.1	0.8	0.2	10.7%	12.2%	3.4%	1.9%	7.1%
Catfish/Pangasius	22.8	17.9	10.8	7.9	2.7%	1.6%	14.4%	5.6%	6.1%
Broccoli, Processed	29.4	25.7	30.4	25.9	3.7%	4.9%	3.4%	3.7%	3.9%
Green Peas, Frozen	16.6	20.4	10.3	5.7	4.2%	3.5%	4.2%	2.3%	3.5%
Cherries, Sweet, Canned	0.1	0.6	0.0	0.3	0.0%	1.9%	8.4%		3.4%
Onions, Dried	5.5	4.3	2.8	3.1	5.9%	5.1%	0.9%	0.6%	3.1%
Apples, Canned	32.4	18.7	17.4	31.9	2.5%	3.0%	1.8%	1.8%	2.3%
Canned Tuna	18.6	17.6	40.7	52.5	0.0%	1.9%	2.1%	5.1%	2.3%
Pears, Fresh	24.3	11.6	13.8	12.4	2.8%	2.5%	1.2%	1.5%	2.0%
Strawberries, Frozen	7.1	10.8	9.1	5.7	1.2%	1.3%	0.0%	0.0%	0.6%
Mushroom, Fresh	10.6	10.6	11.4	13.0	1.3%	1.4%	1.4%	1.4%	1.4%
Artichoke, All Uses	3.5	2.1	2.4	1.4	1.6%	1.9%	0.5%	0.5%	1.1%

Sources: USDA FAS GATS database; USDA Economic Research Service. Vegetable and Melon Yearbook 2011 and Fruit and Tree Nut Outlook 2012; U.S. National Fisheries Institute. “Top 10 Consumed Seafoods.” 2012.

APPENDIX 2



Total food imports from China fell during the economic recession, but over the past four years, imports have increased by about 250 million pounds, a 7 percent increase from 2009 to 2012.



Source: USDA FAS GATS.

Fruits and vegetables (primarily frozen and processed) made up the plurality of imports from China, amounting to 1.6 billion pounds and 41 percent of the imported food products. The 1.2 billion in fresh, frozen and processed fish and seafood products made up about a third of the imports (30 percent).

PANEL II QUESTION AND ANSWER

HEARING CO-CHAIR SLANE: Commissioner Wessel.

HEARING CO-CHAIR WESSEL: Thank you all for being here, and this is a Washington-based panel so it's appreciated that you came all the way out to--

COMMISSIONER GOODWIN: Not all of us.

HEARING CO-CHAIR WESSEL: I'm sorry?

COMMISSIONER BARTHOLOMEW: You meant the panel.

HEARING CO-CHAIR WESSEL: The panel, not the--we'd never call you being from Washington, Carte, don't worry.

[Laughter.]

HEARING CO-CHAIR WESSEL: So we thank you, and this is a terribly important subject, not that all of the panels aren't, and I think there will be some after-hearing discussions that we'd like to have on some of these issues.

And Patty, you talked about these issues. I think several years ago in terms of U.S.-China trade, it was food safety, product safety that probably was on most people's minds, and clearly the sharp edge, if you will, of that issue is the Chinese do not always pursue the rule of law and are quick to react to what we believe are science-based approaches to protect our health and safety, and they want to react in a way that puts pressure.

And one of the earliest places they look is always agriculture. This has been true in almost every trade agreement, whether it's with Europe or others' ag. Because of the commoditization of the product and the ability to buy from other sources, it's something they often go at first.

Can you walk me through--we had a discussion last night about the DeLauro Amendment, and I did not work on that when it was before Congress. My understanding of that was goal was to ensure the food safety of the products coming in from China at the time when there was real questions by the public and by Congress as to whether the infrastructure was robust enough to ensure that the products that they put on their family's table were something that should be there.

MS. LOVERA: Sure. So when the USDA allows a country to send meat or poultry products here, the decision they're making is called an equivalence determination. So they're saying that that foreign government's food safety process is equivalent to our USDA food safety process.

And so they approve a country, and then in addition that country is then supposed to say these are the plants that are allowed to export. So that's the decision that has been raging on at USDA for a long time, and in the course of making that determination, USDA has made visits to do audits of plants to see what the plants look like, what the Chinese food safety system looks like.

Those reports have been disturbing to groups like ours. They were disturbing to Representative DeLauro, and so that was the conversation that was happening on the safety side of things. So this process has kind of happened in fits and starts since the early 2000s, and at one point they were close to finishing

that, making that determination, and the DeLauro Amendment in the appropriations bill said you're not going to, like you're not going to finish that step.

So they're now back on the track of working through that equivalence determination, and we inquire about it regularly when we meet with USDA, and they're back on track. There's an exchange of paperwork that has to happen between the USDA and the Chinese government. I think it's China's turn to send things back. I think USDA is waiting, and we were hearing things about possibly the fall is when that process will wrap up.

At this point, it's supposed to be processed poultry products that are processed out of American birds or Canadian birds, but we fully expect that the next step after that would be Chinese origin birds that are processed, and then the products would come here.

HEARING CO-CHAIR WESSEL: And Mr. Brosch, I know you have strong views on this. I want to ask you. This is for us to learn. My question, though, is, and you mentioned, I think, that there were ten--you called them inspections. We did some work here and had an outside contractor do a study on pharmaceutical and dietary supplement products from China and looking at the question of food safety, product safety there under DSHEA and all the various other laws.

And they indicated that, as I recall, there were 750 facilities in China that produced these products, that FDA was only allowed into 15 of them, and on each of those, it was not an investigation or an audit, but the Chinese would only consider it to be a visit, and, in fact, there were six weeks' notice.

So, Mr. Brosch, to give you your chance here, how should we be looking at the Chinese system and our confidence in it? They don't have confidence in ours. I mean we talked about other products with pork. How do we get to a point where the confidence actually exists?

MR. BROSCH: Well, first of all, I think you have to realize that FSIS is a pretty strict guardian of the door. The United States, we only import chicken right now from three other countries, and there are many, many countries that have attempted access to our country. They've been denied access because FSIS has determined they haven't been equivalent. So only Canada, Costa Rica and Chile, the three Cs, currently can ship chicken to the United States. Nobody else can.

And many other countries have been reviewed. Mexico has been reviewed. Nicaragua has tried to get in, Honduras, many other countries, and FSIS has said no, has said you don't meet U.S. standards. You're not equivalent.

Now, in the case of the DeLauro Amendment, it wasn't a matter of FSIS basically getting through that process and saying yea or nay. By the way, from the industry standpoint, we do not prejudge what FSIS' determination will be at the end of the day. FSIS could very well say we looked at this system, and we do not think it's equivalent, and therefore we're not going to permit, and we think that's a very possible outcome here.

It may be that the Chinese will upgrade certain plants and will upgrade their system and will make it in. We don't know, but that's really for FSIS to

decide. The problem with the DeLauro Amendment is it denied FSIS appropriated monies to do that study, to take that process on. It's the only time in our history where we've done that.

We have 160 other WTO members. None of them have ever been denied that opportunity to at least try to access the market and to prove that they were equivalent. That's the problem with the DeLauro Amendment. The DeLauro Amendment denied what WTO requires every country to do, which is to do risk assessment.

HEARING CO-CHAIR WESSEL: And I understand your point. When we looked--I'll only speak for myself. When I look at how some of our governmental entities, again, let's look at FDA, where we've had heparin and all the other problems that have come in, the broad range of dietary supplements of which I believe 80 percent of Americans take on a daily basis, and we heard earlier--I don't remember who--from vitamin C, all the various other ingredients.

There are some who question--I'm one who questions--whether we have adequate resources to do this, to have the actual confidence in the system, and whether we, because we are not allowed the reciprocity in evaluation with China, have a concern. Reciprocity meaning we can't get into any of their facilities. They want to have third-party validators for pork, et cetera. How do we get over that?

MR. BROSCH: In the particular case of China, if China doesn't give FSIS access to their facilities, they're not going to get approved. I mean it's just as simple as that. I mean but we haven't gotten through that process, and that's the issue that we're facing here.

You know we depend on--we, part of our testimony, first of all, was that we believe that Congress should give more resources to FSIS. It's important to us. Every pork chop that we ate last night or every steak or every piece of chicken that we had on the table is inspected everyday by FSIS. Our population depends on FSIS to do a good job.

They are, despite all the criticism, the standard for the world. They're the best meat and poultry regulator in the world, and we need to respect that. We need to support that. We need to encourage that and improve that. And we don't do that by passing an amendment that says you other countries cannot rely--or we don't trust that our own regulators will do a fair job in assessing the product that's coming in from another country.

It undermines it. It denigrates the good work that FSIS does and the work that we depend on. So I don't think the solution here is to cut the legs out of our own, from under our own regulators. It's to support them as well as we can.

The second thing I think that's important to say that we do not support, as the poultry industry--and I'm sure Bill can talk to this for the rest of the industry--any reduction in the standards for U.S. poultry and meat. We expect that they will essentially meet our standards, and that's what this is all about.

We're not asking for anybody to reduce anything. We want high standards because if a bad piece of chicken, a bad piece of meat gets into the

market, it hurts our product. We don't want bad product in our market. I think Ms. Lovera is wrong. We don't want anything that's below our standards in the market because people who find out that there's been an incident in chicken, wherever it comes, will stop buying chicken.

That's happening in China right now. They're not buying chicken. Why? Because their own chicken is substandard because of all the problems they've had, and they've got problems. We don't want that. We want a very high standard. We want people that come into this country to meet our standard, but we want to do this on the right basis of a scientifically-based, strict, well-funded, well-staffed regulatory system, which we all need.

HEARING CO-CHAIR WESSEL: I've gone over. Hopefully, there will be another line. I would say one thing, which is some of us don't have full confidence in our own administration as well. You know there's currency manipulation that everyone else sees, but they don't see for some reason. So we'll have that further discussion.

HEARING CO-CHAIR SLANE: One of our responsibilities is to make recommendations to Congress, and my question is should we take a look at the COOL law and the Certificate of Origin Labeling, and in order to give American consumers an option to decide whether or not to buy this product from a supermarket? I'd be interested, and maybe we should start with you, Ms. Lovera.

MS. LOVERA: So we're big supporters of Country of Origin Labeling. I don't know how much folks know about the history. It took a long time to get it. There was a very broad coalition of consumer groups and farming groups who wanted this label. So we have it at this point. It's mandatory labeling on really most forms of meat, fruits and vegetables whether they're fresh or frozen, a bunch of different nuts, and ginseng and fish.

There's a definitional problem at USDA. The law says when you process that food, when it's the processed form, you no longer have to label it. When USDA defined processing, we were unhappy. Lots of folks were unhappy with that definition because it excludes a lot of product. So consumers are missing that label on a lot of product because of the way USDA defined the word "processed."

So one of the examples on the vegetable side is you have a bag of frozen peas. They're labeled. The bag of frozen carrots is labeled. You put the peas and carrots together. No labeling because that became processing. We think they drew those lines. They cast that net too broadly on the exception.

So obviously there's also controversy right now because of the World Trade Organization. Canada and Mexico have challenged the U.S. law or the U.S. rules for labeling of meat products, mostly red meat, and so we're in this process right now. In May, the USDA is going to announce some rule change about how they're going to deal with the WTO decision. We think that they can comply up. There're changes they could make to the label that we receive as consumers that pass on more information. We think that would meet the WTO decision that came down from that case.

Whether or not, if you ask me if Congress should take a look at it, I think it depends which Congress because this is very controversial. We will and many farm groups will be concerned about what people's interest is because it's very controversial. We know that some of my friends here on the panel don't support this label, and it will be a political fight.

We think that we can fix the WTO challenge piece at the USDA. They wrote a proposed rule that we support. We hope that they finalize it. Where Congress comes in on that, it depends what year you ask me, I think.

HEARING CO-CHAIR SLANE: Mr. Westman.

MR. WESTMAN: Thank you very much.

We don't support the Country of Origin Labeling regulation as it's been revised. As you know, the WTO appellate body ruled that the U.S. was in violation of WTO principles, that it was discriminatory to foreign suppliers, and so USDA/ USTR came up with a revision that actually makes it more restrictive, in our opinion, because for the meat and poultry sector, what importers, processors would need to do is label products whether it's born, raised and slaughtered in "x" country.

So if you have an understanding of the North American meat market, you know that we import livestock and meat from Mexico and Canada. A tremendous amount of meat crosses the border everyday. So what our meat packers are going to need to do is segregate these animals in the processing plants, and there is no additional room in the processing plants, because you're going to have to identify and trace the meat from an animal that was born in Mexico, but it was raised and slaughtered in the United States, versus the animal that was born and raised in Canada and slaughtered in the United States, and have a different label for each of these products.

So, first of all, the information, as we understand it, that's being required is not requested by consumers, and it's going to be very costly for not only the processors to do but also the retailers. Can you imagine in a retail environment, in a supermarket, the extent of the labeling you're going to have to identify these different products that come in?

So, whereas, you could have now a label that says product of the U.S. or Canada, which is fine, and as Kevin mentioned, the meat is processed or the livestock is imported according to USDA regulations and USDA oversight. So the question isn't food safety. It's a question of identifying reasonably where the product is from.

So providing this type of information to consumers is going to do actually the opposite of what I think the rule is intended to do. You're going to put small processors out of business. They cannot afford to segregate these animals. They can't afford this labeling, and the retailers tell us that they're not going to accept products from other countries now because they can't, they just can't figure out this division in labeling and so forth.

We have 38 pages of comments regarding our oppositionto this rule. I'd be happy to provide that to the Commission so you can see the labeling aspects

of this new rule and how it does not comply with the WTO.

One last point. I'm sorry I'm over a little bit. Canada has informed us that the damage to their industry is $1.2 billion for beef and pork alone. So when this is challenged--if this goes into effect before the WTO rules on the new ruling, the damage, the penalties to the United States in terms of trade will be $1.2 billion. And I don't think that's what we're interested in.

MR. BROSCH: Well, I'm going to let Bill speak generally because we don't--you have a little cocktail hour information here at your next cocktail hour, and you can tell people, ask people how many chickens do you think that we process every week in the United States? It always raises a lot of eyebrows. It's 185 million. So basically sending chickens to the United States is sending coals to Newcastle. We're not going to import a lot of chicken despite everybody, you know, the Chicken Little running around and the sky is falling. We're not going to do that.

We are the most efficient chicken producer. We have lots of excess chicken. We're not going to have a lot of imports. To the extent that we have imports right now from Chile, Canada and Costa Rica, our industry doesn't care whether it has those names of those countries on it or not because frankly all that--that's a very small amount of poultry. All of it that comes in is processed in plants that are as good and under a process that's equivalent and as good as ours, and we think that's just as safe as what we produce.

So essentially we don't see the reason for it. We don't see the need for it. And we're happy--we agree with Bill's statements.

HEARING CO-CHAIR SLANE: Thank you.

Commissioner Bartholomew.

COMMISSIONER BARTHOLOMEW: Thank you, and thank you all for coming here from Washington to testify. It's always interesting to hear different views.

I'd like to shift the topic just a little bit and to ask about the scientific basis on which China has banned some of the poultry and beef and I think pork exports from the United States. And I just wondered are you guys satisfied with the scientific argument that the Chinese government is making?

MR. BROSCH: Well, in the case of poultry, what we face mostly is state bans because of avian influenza. I mean we're out of the market for a different reason. We have antidumping duties that have been placed on us in retaliation for the DeLauro Amendment. So that's kind of put us out of the market, but to the extent that we face phytosanitary or sanitary barriers, it's primarily state-by-state barriers based upon our reporting of avian influenza.

And we've never had a high-path avian influenza outbreak in the United States. We have periodically a low-path incident here or there. We have a very sensitive reporting system in the United States so all low-path incidents are reported, and some countries, in China and Japan, Taiwan, India, will ban certain states for a period of time based upon a reporting of a low-path incident.

Now, that's not the international standard. The OIE standard is

essentially high-path avian influenza is on List A. Low-path is not. It's not a reportable disease, and so under the international standard that's recognized by the WTO, this is not a good basis for doing it. We're trying to work through that. But frankly, you know, right now Virginia and Arkansas are on the Chinese banned list right now. The rest of the states are not. We're trying to work them off that.

We're trying to get them to understand the difference between low-path and high-path avian influenza. It's particularly ironic, by the way, because China has had more high-path incidents than anybody else in the world.

COMMISSIONER BARTHOLOMEW: I was thinking.

MR. BROSCH: So it's kind of crazy. But that hasn't been our biggest problem. It's a significant problem. It's one that we hope to work through, but our problems, our bigger trade problems have been the ones that I talked about in my remarks.

COMMISSIONER BARTHOLOMEW: Mr. Westman.

MR. WESTMAN: Thank you.

Based on my experience in China, I think that first I'd like to say that the Chinese are not unlike us. They want to have a strong food safety system. They want to be secure in the food that they're providing for their families and their children's future. I think that's obvious.

And the scandals that Patty mentioned are, I think, a serious concern, not only for consumers, but also the government. They want to have a strong system themselves, and the, as we say, non-scientific restrictions, also require an understanding of the Chinese culture and diet because they eat different products than we do.

And if you were to use the case that was mentioned this morning of ractopamine, ractopamine was only approved by Codex last July in terms of maximum residues level, and it was approved before that in 25 countries that now use the Codex MRL. So I think China's problem is clenbuterol, as was mentioned this morning. It's not ractopamine.

And so their issues with feed additives have a little different perspective than what we're used to. We have an opportunity to work with them to solve these types of problems, and we see it as, even in the meat and poultry sector, we see it as a distinct opportunity to work with them to improve their system.

So after that Codex ruling last year, as you know, the Russians were very upset about it. The Chinese weren't so upset, in my opinion. What they said was we need some help with the pig lung tissue research. We need some help in getting that because that is a product that's an issue for us. Whereas, in the United States, it's banned. We don't eat that product, and we don't trade that product.

So we looked at that, and we said, okay, we'll help you with that. So we did, and I think this is the way forward with these types of science-based restrictions, is to work together to try to resolve and find a way forward. And I could talk for another hour about my experience with the Chinese and this particular issue, but I'll defer for other questions.

COMMISSIONER BARTHOLOMEW: So you're satisfied that there is legitimate grounds in the science that they cite when they are putting restrictions on some of our products?

MR. WESTMAN: Well, I think that the problem has been that they didn't know how to do this. They didn't know how to do risk assessments for a lot of these products. That's where they need help, when they came to us and said we need some help on this pig lung tissue risk assessment, and I think a few years ago when the U.S. was demanding a risk assessment from them--it's required by the WTO--they didn't have it. They didn't know how to do it.

So I think this is where we have an opportunity. We don't just have to complain. We can actually have a cooperative relationship and a have a cooperative program to work together on these issues.

COMMISSIONER BARTHOLOMEW: Do you think that they're using phytosanitary standards as a way to protect their own industries?

MR. WESTMAN: Well, I think many countries do that. As I mentioned in my testimony, as tariffs have come down, we're getting more and more involved in non-tariff barrier issues and standards issues, and this is what the Trans-Pacific Partnership negotiations are intended to address, and it is why we have an SPS Agreement within the WTO, and as we've discussed with the EU, this is what we want the Transatlantic Trade and Investment Partnership negotiation to do, is address these restrictions and lower the incidence of using non-scientific barriers to trade.

MR. BROSCH: Let me say with respect to AI and the bans on Arkansas and Virginia, it's not our perception that this is an attempt to protect their domestic industry. It's our perception that this is a reaction by the government, an overreaction by the government, to the problems they've had themselves in AI. Effectively, they've had these big outbreaks, and they're notorious in China, and so rather than sort of distinguish between low-path and high-path AI, they just say all AI is banned in China because we are now cops on the beat. We're there to protect you.

So it's kind of an overreaction on their part. I think over time as we work with them, they're going to understand a little bit better. If we had no other restrictions, if the dumping case weren't involved, it would be a problem for us, but not an insurmountable problem, because we could basically ship chicken from lots of other states, not just Virginia.

I mean Virginia and Arkansas are not the only states that we produce chicken in. So we don't think it's an attempt by China, in this particular case, to be protectionist in trade terms. We think it's basically a reaction to their own food safety problems.

COMMISSIONER BARTHOLOMEW: It's interesting, I suppose ironic--I know you used the word in another context-- the stringency at the border of some of our products going into China, and yet they have problems internally which have to do as much with lack of regulatory enforcement and corruption as they do with other things.

MR. BROSCH: Yeah. Well, I think stringency at the border with your trading partners is easier.

MR. WESTMAN: I'd like to add one thing about Virginia, which is that the problem with Virginia is that they can't agree—the U.S. and China can't agree on where to do the gene sequencing of the virus. It's not really the issue itself. It's where are the scientists going to get together to do the gene sequencing.

MR. BROSCH: That's the issue. I mean that's where it's gotten to be. And so we've come a long way actually from that initial reaction. We have been talking with their officials about looking at this. What they're concerned about is this is the kind of a strain of avian influenza that could mutate into a high-path strain. And scientists know a lot about this, and so they have to do, as Bill said, a genetic sequencing experiment on this, and right now they're arguing about where.

COMMISSIONER BARTHOLOMEW: Thank you.

MS. LOVERA: Can I add one thing? I mean obviously there's trade relationships involved in this, and obviously SPS stuff can become a tool in trade relationships, but it is very common for folks on my side of the fence who are looking at safety standards in the U.S. more often than we even look at imports or foreign sources, where we kind of have the same criticism.

I mean we were talking about things this morning. Arsenic came up. Antibiotics came up. Ractopamine, yes, maybe it's better than clenbuterol, but we're not all convinced it's okay. So we're not starting from a place of absolute purity here when it comes to how stringent our standards are. We understand that this becomes part of trade battles, but it is astonishing how often I'm kind of rooting for other countries because they're taking a stand that we have not yet achieved here on a particular chemical residue standard or whatever it is.

So I just think it is more nuanced than using SPS as a barrier because our standards have plenty of room for improvement domestically. Especially when it comes to a lot of these chemical issues and residue issues, our regulations are behind on the consumer protection side and the human health side of a lot of the inputs that we are using in agriculture, and so there's a lot more to do there than just say, well, that's the Codex standard because the Codex process is not without its politics as well.

COMMISSIONER BARTHOLOMEW: And while I certainly admire and support your consumer advocacy, I would just say in response, that I would feel significantly more comfortable eating products that originate here and meats and vegetables and all sorts of things than I would products that originate in China.

MS. LOVERA: We agree with that. I mean that's our advice that we give to people, but when we get into these battles over you have to take this U.S. food and you shouldn't get to object, it does worry me a little bit that we're acting like it's very black and white, and some of these, particularly the input issues, sometimes there's a point there.

COMMISSIONER BARTHOLOMEW: Thank you.

HEARING CO-CHAIR SLANE: Commissioner Talent.

COMMISSIONER TALENT: Thank you, Mr. Chairman.

Just so I'm clear, Mr. Brosch, as to the view of your association, you wouldn't have been upset if the FSIS had rendered a decision on Chinese poultry and had said it's not safe, and you can't come in through the regular order. That wouldn't have--

MR. BROSCH: No.

COMMISSIONER TALENT: It was the way it was done, which in your view caused the Chinese then to react in a way that's hurt your industry?

MR. BROSCH: That's correct. It was the fact that the amendment singled out China among 160 countries that are WTO members as the only country that FSIS could not do a risk assessment on.

COMMISSIONER TALENT: Right. And then you guys ended up bearing the brunt of their response when they did the antidumping thing?

MR. BROSCH: That's correct.

COMMISSIONER TALENT: That's your view?

MR. BROSCH: That's correct.

COMMISSIONER TALENT: All right. Now, I understand that entirely. I also sort of put myself a little bit in the shoes of Ms. DeLauro, and maybe you and Mr. Westman could respond to this, because you said a minute ago, Mr. Westman, that they told you basically they don't know how to do risk assessment. Okay. These are the Chinese government officials.

To me, if I was still in the Congress, and I was considering chicken and pork from a country that's admitted they don't even know how to do risk assessments, I mean don't you think we ought to have maybe a more broader, systemic concern about Chinese food safety, and do you really feel like the FSIS is capable of making certain that American consumers are protected?

MR. BROSCH: Yes.

COMMISSIONER TALENT: Okay.

MR. WESTMAN: Yes, I support that, too.

COMMISSIONER TALENT: And you have very high confidence level in that agency?

MR. WESTMAN: Yes, I do.

MR. BROSCH: I eat the food they inspect everyday and so do you.

COMMISSIONER TALENT: Right.

MR. WESTMAN: I think if I can make a further comment on the poultry issue, FSIS approved China to export poultry of U.S. approved origin in 2006, and they informed the Chinese of that. And the next step was the final approval, which Patty alluded to, that's still in process, and it's 2013. So it's seven years past getting the approval, and that approval is still on the books, and you can go to FSIS regs and look at it and so forth.

So to the Chinese we were approved in 2006. How come it's 2013 and we still can't ship cooked chicken that comes from your country? And what they're looking at is Japan imports cooked poultry of Chinese origin from China, and so does Canada, so what's with the United States? What are we doing here? And

Japan is one of the most strict countries in the world in terms of import requirements. So just a little history there.

COMMISSIONER TALENT: Right. And I understand.

MR. WESTMAN: And the other part--

COMMISSIONER TALENT: What you said before, and it makes perfect sense to me, that the last thing your industry wants is bad chicken in the American market.

MR. WESTMAN: Exactly.

COMMISSIONER TALENT: No matter where it comes from.

MR. WESTMAN: Our companies have a huge reputation to defend everyday. And the last thing on the risk assessment, I think this is part of the cooperative effort we see for that particular issue of ractopamine and feed additives. I use that as a specific example, not in general, in terms of their food safety system.

COMMISSIONER TALENT: Ms. Lovera, a question for you. FSIS allowed, as you mentioned, apples and tilapia and that sort of thing. Is that a mistake in your judgment, to allow imports from China of those items?

MS. LOVERA: So I mean it depends--

COMMISSIONER TALENT: Or are you just not certain based on--you know, discuss that a little bit.

MS. LOVERA: So I mean USDA has a different system than FDA, and they are radically different.

COMMISSIONER TALENT: Okay.

MS. LOVERA: And it shows up, I think, most starkly in imports. So FSIS USDA is saying your country is equivalent to our country in terms of what they do. And so for imports, we as U.S. consumers are trusting that if we were to talk about Chinese poultry or Canadian beef or whatever it is, that the country's system is the same as our system. They're equivalent. It's as good as if our USDA inspectors were there.

We spend a lot of our time down at USDA bickering about whether that's actually true in practice everyday, and there're improvements to be made there. But when it comes to FDA, we don't even have that. We just don't. So there's been a lot of attention on FDA for that reason; right? A lot of the food safety headlines in the last decade have been about FDA foods, in part because it's a much less rigorous food safety structure.

Congress passed a bill that became law a couple years ago to revamp that system. So we would prefer not to see imports of those foods at this point. And there're structural reasons, and then there's questions about what's going on in a country like China. The structural food safety regulation system, FDA can't hold another country equivalent to standards they don't have, and we don't have produce safety standards yet for apples in this country or any other country. So how do you have an equivalence process of meeting that standard?

Fish is a different set of issues. You heard about them in New Orleans, and it's very much reliant on a model where they're inspecting themselves,

and we have grave concerns about that model, and FDA is very reliant on that model of kind of self-certification. So we think that the domestic side of the FDA foods needs to get stronger. But in the meantime, we're not comfortable with those levels of imports, especially in the country like China where they're not keeping up with the expansion of their economy in any sector in agriculture. That's very, very true.

And the last point that I will make is on these processed foods, which is also FDA territory, it's even harder to track it down. It's even harder to figure out what the problem was, and we heard something about counterfeiting this morning. I mean we're literally now dealing with counterfeit ingredients and things that are deliberately added to beat a quality test.

Melamine was about counterfeiting. Right. It was to beat a protein test. You added something else. We're seeing that more and more, and FDA is not up to that job either. They don't have the presence there. So we're not comfortable with the level of imports, to be very, very clear, from China in particular.

COMMISSIONER TALENT: Thank you.

HEARING CO-CHAIR SLANE: Commissioner Shea.

VICE CHAIRMAN SHEA: Thank you all for being here. I am very confused. So I'm a non-ag person. I'm going to sort of follow up on Commissioner Talent's question. Now, USDA has Food Security Service--

MR. BROSCH: Food Safety Inspection Service.

VICE CHAIRMAN SHEA: FSIS. They have an equivalence test. What specific products do they cover?

MR. BROSCH: Beef. All meat or most meat, most meat, beef, pork, and then lamb, and then chicken.

VICE CHAIRMAN SHEA: Okay.

MR. BROSCH: Poultry and turkey.

VICE CHAIRMAN SHEA: But not fish.

MR. BROSCH: And eggs. Poultry, turkey and eggs. Not fish.

VICE CHAIRMAN SHEA: Okay.

MR. BROSCH: The FSIS has no jurisdiction over apples or sugar or processed food or fish or any of that stuff.

VICE CHAIRMAN SHEA: Okay.

MR. BROSCH: That's all somebody else. We're just talking about meat and poultry and eggs.

VICE CHAIRMAN SHEA: And they apply an equivalency test. And FDA has authority--

MS. LOVERA: Basically everything else.

VICE CHAIRMAN SHEA: For everything else. Okay.

MR. BROSCH: One of the differences, Commissioner, is that we have a premarket approval process under the FSIS inspection. In other words, everything has to be inspected before it goes on the market. FDA does not have premarket approval process. They don't inspect things. People put things on the

market subject to potential recall.

VICE CHAIRMAN SHEA: I see.

MR. BROSCH: If it turns out that they're defective in some way.

VICE CHAIRMAN SHEA: Okay. Got it.

MR. BROSCH: Adulterated, I think is the legal term that they use.

VICE CHAIRMAN SHEA: Okay. I understand. Now, Ms. Lovera, you have a very helpful appendix, Appendix 1, in your testimony, which I believe lists the major U.S. food imports from China.

MS. LOVERA: Right.

VICE CHAIRMAN SHEA: And none of them appear to be FSIS imported.

MS. LOVERA: Right.

VICE CHAIRMAN SHEA: So this is sort of all FDA--

MS. LOVERA: Right.

VICE CHAIRMAN SHEA: So you're telling us that this list is not subject to a pre-review.

MR. BROSCH: Market approval.

VICE CHAIRMAN SHEA: Premarket approval. If there's a problem, FDA will figure it out, discover it, or sound the alarm here in the United States.

MR. BROSCH: Order a recall.

VICE CHAIRMAN SHEA: Or order a recall.

MS. LOVERA: Right. And so this is the subject. I mean in January of 2011, the President signed an FDA Food Safety Modernization Act, which was the first overhaul to FDA's authority in a very long time. Very few of those rules have gone final. We're in the proposed rule stage for many of them. We're waiting for a rule about how they will deal with shippers from other countries--

VICE CHAIRMAN SHEA: Okay.

MS. LOVERA: --coming in, and then there's a bunch of domestic standards they're going to set under that law, which should be what the importers are held to, but we don't know what those standards are yet.

VICE CHAIRMAN SHEA: Okay. Now, I heard from Mr. Brosch and Mr. Westman that they're very supportive of the current FSIS system, and what you say makes a lot of sense to me. Mr. Westman, since you were a Foreign Service Officer at the U.S. Embassy in China, does the FDA have enough resources to do its job to make sure that the list of items, food imports in Appendix 1 that Patty provided, are safe for U.S. consumers?

MR. WESTMAN: Well, I think my comment is that I think FDA has gotten the message from Congress. When I arrived in China in 2007, there were no, perhaps one, FDA employees at post. They had one person from the State Department that was responsible for FDA issues, and by the time I left, they had 11 Food and Drug Administration attachés stationed in China at the various consulates, and then they were looking at also putting people in Europe and South America.

And so this is a relatively new thing for them, and Patty mentioned,

they had only done ten inspections. Well, they had probably done zero before. So I think their effort to expand their overseas staff is actually helpful because they're on the ground; they can get around and see these plants. So it's just a function of they're trying to address it. I think it's a function of resources and being able to put people overseas.

VICE CHAIRMAN SHEA: But would you just be more pointed? I understand FSIS sounds like a great system. It sounds like a very strong system and very limited number of countries have so far--

MR. BROSCH: Yeah, it's hard to get in the door.

VICE CHAIRMAN SHEA: Right.

MR. WESTMAN: Yeah.

VICE CHAIRMAN SHEA: I'll direct it to Mr. Brosch and Mr. Westman. Would you be able to say that the food subject to FDA inspection that has been imported from China into the United States is safe, as a general matter? Would you be able to say that with any assurance?

MR. BROSCH: I don't work for any of these people.

VICE CHAIRMAN SHEA: I know you don't. But you're part of the Agriculture world.

MR. BROSCH: There's been a lot of debate about this. I mean a couple years ago, there was a lot of discussion about trying to give FDA premarket approval authority here in the United States. It's the price tag that killed that. What would it cost, for example, if the United States were to have premarket approval for all FDA regulated imports, just in the United States? The price tag would be huge.

So that's really the problem. It's a nice thing, but we spend a heck of a lot of money in the United States just on FSIS oversight of meat and poultry and eggs, and that's very appropriate. The slaughter process is a high risk process, and we should have premarket approval there, but when you get to these other things, we're talking about almost a bottomless pit in terms of the money we'd have to spend if you were to try to shift from a FDA type of model to an FSIS model for all other products.

VICE CHAIRMAN SHEA: So it's prohibitively expensive to shift to that model. They don't have a good system, as you say, risk assessment system?

MR. WESTMAN: Well, I was using the example of ractopamine in that sense.

VICE CHAIRMAN SHEA: Oh, okay.

MR. WESTMAN: In dealing with that particular problem with clenbuterol and ractopamine, they were trying, they needed help in how to do that risk assessment. That's what I was referring to.

MR. BROSCH: I'm not trying to duck you--

VICE CHAIRMAN SHEA: No.

MR. BROSCH: --but really I work in the dairy industry and the poultry industry and the Dutch flower bulb industry, and I don't really think I should opine beyond what I know.

VICE CHAIRMAN SHEA: I understand.

MS. LOVERA: I think we can look at the odds of something getting caught, right? Setting aside whether you're comparing industries, FDA at the U.S. border inspects a very low percentage of the food, and then it becomes a game of what number.

VICE CHAIRMAN SHEA: We've heard the stories about the toothpaste, the pet food, but I'm not aware of anyone who's gotten ill or severely ill as a result of any of these products listed on Appendix 1.

MS. LOVERA: We always caution about working backwards from illness. It's very hard to get into the system as a number when you're ill from the food, and it's very hard to know which food made you ill, and if this was in a form that didn't have a label, how do you know it was Chinese?

VICE CHAIRMAN SHEA: So it's a big mystery. The whole thing is a big mystery.

MS. LOVERA: We talk about this all the time in food safety. It's called attribution data. What food made what person sick? And all of the numbers we're dealing with regularly in food safety, there's a lot of extrapolating because we lack that data for some logistical reasons we could fix. For some reason it's just very hard to figure it out, and it's even worse on imports, and it's even worse if you're talking about frozen foods or something that is heavily processed because you don't know what the source was.

VICE CHAIRMAN SHEA: Thank you.

MR. WESTMAN: If I could make two quick comments. A lot of the companies I'm familiar with import products from China. These products are often reprocessed here. So a company's brand goes on the label, and their company reputation is on the line, and they don't want to sell unsafe products. That's one thing.

And the other thing, I lived in China, and my wife has health issues, and we ate the food everyday. It was food, and we prepared it, we were careful what we bought, and we came home, and we're okay.

[Laughter.]

HEARING CO-CHAIR SLANE: As I recall from the testimony by FDA in New Orleans, I think they told us that they inspected less than about one and some percentage of all the fish coming into the United States, but they didn't have the authority when they rejected the load, they didn't have the authority to confiscate the fish. So the ship would then try to get into another port, and eventually the fish got in, which is another problem.

Okay. Fine. Commissioner Tobin.

COMMISSIONER TOBIN: I have two questions, one is a brief clarification question since we've been digging deep into the FSIS area. You mentioned, Mr. Brosch, that there is inspection that occurs in China; right? Are they our inspectors or are they Chinese people who are inspecting according to our regulations?

MR. BROSCH: Well, we don't have any inspectors in China right now

because we don't have any recognition. We're going through that process. But let's talk about Canada, for example.

COMMISSIONER TOBIN: Okay.

MR. BROSCH: We have a process where Canada will basically send us all the information about the way in which they do inspections, and then they will send us a number of plants, and the United States goes and does a series of visits through those plants and observes the process, observes how it's administered, and looks through all of their recordkeeping.

If they determine that they're equivalent, then what happens is that the Canadians do the inspection, and they list certain plants that they say provide equivalent protection. They don't necessarily have to list all their plants. They can say here are the plants that we're going to ship from. Those are subject to periodic audit by the U.S. government so the U.S. government does not have an inspector in there everyday, but it sends inspectors there on a periodic basis to audit what they're doing and to essentially look over everybody's shoulder.

COMMISSIONER TOBIN: And would the reverse be true, say Canada to the U.S., if they imported from us?

MR. BROSCH: Yeah, and this is another mark of FSIS. Most countries don't ever bother to send anybody. As long as it's got an FSIS certificate, they accept it. I think that's a mark of how respected our system is worldwide. Now there are some countries that do come in and do periodic audits. Russia does it. Japan will do it. Korea will do it. But most countries that accept our product, accept it on the basis of FSIS certification.

COMMISSIONER TOBIN: Thank you.

And my other question I'd like to direct to you, Ms. Lovera. I follow the news certainly, but I'm wondering if you could give us a 2013 picture on the top issues related to safety with seafood and what action, if any, is occurring to address problems?

MS. LOVERA: The U.S. is a large importer of seafood products. Most of what Americans eat is imported in seafood, and most of that is farmed. We still have a big fishing industry in Alaska and the Pacific Northwest. We're exporting a lot of that. A lot of the wild caught stuff is going elsewhere, and we're bringing aquaculture products in, so this is an FDA food. They have seafood.

COMMISSIONER TOBIN: Okay. FDA.

MS. LOVERA: And they have a long history of--I will spare you the story of their structure for safety inspections, but it's a model where the company is supposed to be doing a lot of it themselves, and FDA has an oversight role, and they're supposed to be adhering very strongly to a food safety plan. The acronym for the whole program is HACCP.

The big issues we worry about with farm- raised products, especially, are not unsimilar to the conversations you would have about raising animals: what is the density? Are there disease problems because of that density? What are the inputs? One of the most common problems for rejections of imported farmed fish is residues of either veterinary drugs that are not allowed in this country, or

residues of antibiotics that shouldn't be present. They should have been withdrawn or not even allowed in U.S. aquaculture or other meat production.

We're having a lot of conversations about what are the sites of these farms. Are they starting in a clean water environment in the first place? There's also a big conversation about imported catfish, which is from China but also Vietnam. Are these being grown in polluted waters?

So there's just a long list of things you have to think about with aquaculture. We don't have enough oversight of these facilities, and there are really a strong list of, constant list of problems that FDA finds at the border ranging from pathogens, drug residues and chemical residues are like the top items.

COMMISSIONER TOBIN: Okay. Thank you.

CHAIRMAN REINSCH: I want to come back for a minute to WTO and my day job which is representing companies on trade issues. We're big on compliance and compliance with multilateral obligations. And the United States has brought a lot of complaints against China in a number of areas and actually done fairly well. Generally speaking, plaintiffs do well at the WTO. We've done fairly well.

We don't seem to have done quite as well in agriculture complaints. The DeLauro Amendment hasn't fared very well, and neither has the Country of Origin Labeling issue. Maybe each of you could comment on the utility of multilateral dispute settlement in this area, generally whether you support it, whether you think it's a viable option, and whether you think some of the issues that we've been discussing are susceptible to that kind of forum as opposed to unilateral action?

MS. LOVERA: I mean the short answer is we're not big fans of the WTO. So in terms of the nuances of how to make that process work better, we don't spend a lot of time on that topic. Our members, the folks we talk to, and I think a lot of Americans, aren't super keen on this extranational forum where it seems like companies fare better against domestic standards than most people would want to see. I mean that's the short answer. I could go on, but I won't.

The piece that we do spend more time thinking about is what are these trade legal standards for food safety that come out of Codex? And that's a process that leaves us cold as well. You know, consumer groups are way underrepresented in that process. It's very much government agencies that we think are far too influenced by the industries they're supposed to be regulating that are in there making the standards.

So we have a real structural problem with how we're dealing with domestic regulations in that arena so I don't really have suggestions for what those tweaks are.

CHAIRMAN REINSCH: Okay.

MS. LOVERA: Whether or not it's called a weakening of domestic standards, it's probably not going to be called deregulation, we see it all the time. So whether it's USDA's food safety guys going to Canada, they used to go once a

year to audit, they started going once every three years a couple years ago and just told us two months ago that they reduced that frequency of visiting, and this is the strong--

CHAIRMAN REINSCH: Okay. We're getting away from my question though.

MS. LOVERA: Right.

CHAIRMAN REINSCH: It was a WTO compliance question.

MS. LOVERA: But we think that that is coming from the constant pressure of this structure that's overly reliant on the WTO. We're seeing the same thing with domestic poultry inspection.

CHAIRMAN REINSCH: Okay. Mr. Westman.

MR. WESTMAN: We're supportive of the WTO process and standard setting bodies like the OIE and the Codex. We feel strongly that there has to be a science-based forum in order to discuss these things and set the standards for trade.

A good example is beef. I mean we hope to get negligible risk for beef from the OIE this May, and that will help us in terms of our interaction and restrictions we face for beef in other countries, including China. It will help us in Japan, Taiwan, Korea, Mexico, and so forth.

So it's very important to have this. If you go back to the ractopamine example, it was several years, an eight-year process, and the safety of that product was reaffirmed by European scientists three times, but for political reasons it couldn't get through Codex until finally last year enough countries said there doesn't appear to be a strong safety risk here so they voted for it.

Within the TPP negotiations, we've argued for enforceable SPS text within that agreement because it is negotiated outside of the WTO. We feel that this should be the 21st century agreement having an enforceable text, but there is no consensus yet on this issue with the original 11 countries at the negotiating table.

CHAIRMAN REINSCH: I'm glad you brought that up because I want to come back to that.

MR. WESTMAN: Okay.

CHAIRMAN REINSCH: Let's finish this line. Mr. Brosch, do you want to comment on WTO?

MR. BROSCH: Well, as you may know, I was one of the two U.S. negotiators on the SPS Agreement so I have a lot of personal interest in this particular agreement. We've always felt that, and I think we felt when we were negotiating it, that it was a set of standards that countries should learn to live by. Although, in terms of dispute settlement, it would only catch the egregious case and it probably could use a lot of tightening up in terms of where it is, but the only cases that I'm aware of that have gone before it in the SPS area have been the most egregious cases.

DeLauro was an egregious case. It's not even close on a legal standard basis. In Australia's salmon case we saw the same thing. The beef case in Europe

was also the same thing. They were the egregious cases, and I think they were the right decisions.

I don't think that the record of the WTO in terms of being plaintiff oriented is representative of bias on their part. I think it's representative of the type of cases that are brought. Countries do not bring weak cases before the WTO. They only bring the egregious ones.

CHAIRMAN REINSCH: I generally agree with that, but let me ask one quick question, and Mr. Westman has already commented. Maybe I can ask Ms. Lovera. It seems to me the TPP, and also the U.S.-EU agreement once it gets rolling, is an opportunity to create a template that addresses some of these issues amongst entities that reflect large global market power. If the U.S. and EU were to agree on an approach on sanitary and phytosanitary standards, that would be significant for everybody else because they want to presumably sell in that market.

The same is true in the TPP. Is your organization or your colleagues, sister organizations, participating in a public way in advising our administration on what to do in the TPP?

MS. LOVERA: We're advising them not to do it. So--

CHAIRMAN REINSCH: You're advising them not to do the whole thing?

MS. LOVERA: Yeah, I mean we don't think that American consumers, the American farmers, have fared well under previous trade agreements although that's a much bigger conversation than you have time for now. When it comes to even SPS though, I think the U.S.-EU will be a fascinating exercise of watching trade negotiators shoot at the highest standards and try to bring them down instead of bringing them up.

CHAIRMAN REINSCH: So you're going to oppose that one, too?

MS. LOVERA: We're talking to folks in Europe, and they're very concerned when it comes to food safety. They have standards that we think are higher. We support their efforts to keep them, and it's very clear that ag and food safety and a lot of issues we're talking about are going to be hot topics in that negotiation.

And we'd have to look at the track record on what's happened to domestic standards in the agreement, and it hasn't been good from the consumer and environmental side of things. So I'll just stop there.

CHAIRMAN REINSCH: I'm glad you did. I'd love to go on, but my time is up.

HEARING CO-CHAIR SLANE: Well, gentlemen and Patty, thank you very much.

HEARING CO-CHAIR WESSEL: Can I have one--

HEARING CO-CHAIR SLANE: Yes, sure.

HEARING CO-CHAIR WESSEL: I apologize. Mr. Westman, in your testimony among the recommendations, you said you support U.S. participation in international standard-setting organizations such as Codex Alimentarius.

What do you mean there? Are we not participating correctly? Is it not

funded? What did you mean there and with the OIEs?

MR. WESTMAN: It's just to reaffirm the support.

HEARING CO-CHAIR WESSEL: Reaffirm. Okay.

MR. WESTMAN: To make sure that we're at the table.

HEARING CO-CHAIR WESSEL: Okay.

MR. WESTMAN: That our U.S. Codex Office has the right people in place and has the expertise in place when we go forward. And it's working. Last year, we had Darci Vetter from USDA who led the delegation and did an outstanding job, and the people that have been in the U.S. Codex Office have done a great job in trying to move these things forward, and it's just a reaffirmation of that work.

HEARING CO-CHAIR WESSEL: Okay.

MR. WESTMAN: If I could just say one final comment about Europe. You mentioned Europe. We have a non-hormone-treated cattle agreement with Europe that came out of the hormone case. The meat we send to Europe is the highest-value meat in the world now because it has to be organic and non-hormone treated from birth to slaughter, and we have a non-ractopamine pork agreement with Europe as well, and that's what other countries look at.

They say, well, you gave it to Europe; how come you don't give it to us? So this is sort of the conflict that we have sometimes in many of these international issues.

MR. BROSCH: May I?

HEARING CO-CHAIR WESSEL: Go ahead.

MR. BROSCH: When we talk about Europe's high standards, Europe back in the '90s said they're not going to take any U.S. chicken because we use hyperchlorinated water to rinse the chickens, and they didn't like that.

And so we said fine. In 1996, I was part of the equivalency negotiation with Europe. They said, well, we're not going to do that. We suggested other antimicrobial treatments like lactic acid or something like that which could be used to rinse the surface to get salmonella off and do that kind of thing. And they said, well, we'd have to consider that. We'll send it before our scientific review committee, and we'll give you an answer in a year.

And that was written right into the agreement. So eight or nine years later, they finally got around to doing it. They put it before their scientific review committee, and their own scientific review committee said this is safe and efficacious. It's not going to cause any harm, and we think this is a good idea. They sent that up to the member states, 113 Committee, and they voted it down 27 to nothing. So I'm not sure that that's high standards.

HEARING CO-CHAIR SLANE: Carolyn.

COMMISSIONER BARTHOLOMEW: Again, thank you all, and you've given us a lot of food for thought. I want to go back to sort of the numbers that we're talking about a little bit because I, like you, believe that we need a much stronger food safety system, and we need to address the problems we have in our own system as well as other problems.

But if any of you have been to see the port of Hong Kong and the port of Shanghai, the port of Dalian, all of these places, Guangzhou, all of these places where things are being exported from China. 11 people for the FDA is sure better than two people for the FDA, but it doesn't give me a whole lot of confidence that a lot of the things coming out have been adequately inspected and are safe, and so you talk about needing more personnel at the FSIS. Are we talking about 300 percent more?

Are we talking about a thousand percent more?

I'd like to ask what might be an unfair question. You are here on behalf of associations or organizations. If you can take that hat off and talk as a consumer, is your viewpoint going to be the same?

MR. BROSCH: Well, first of all, I don't think that we're talking about, I mean let's not confuse the FDA conversation with the FSIS. We're talking about support for FSIS, and I'm not sure that we're talking about a lot more resources. They do a pretty good job where they stand. Our problem is the allocation of resources to do some of these equivalency determinations. I think that's where they could use more help.

In terms of the domestic program, we think they're doing a very good job. But as they get more requests to do this and people want to be assured whether they're doing a good job, they're obviously going to need the resources to do it. They see themselves primarily as a regulatory and health protection agency, which they are, but they do have now increasingly some international trade function in terms of if somebody wants to access our market, they need to do a fair risk assessment, and they need the resources for that. So that's really what we're talking about with FSIS, but we're not talking huge, at least in the FSIS side. FDA, if you're talking about premarket approval, that's a whole different thing, and that's the black hole--

COMMISSIONER BARTHOLOMEW: Right.

MR. BROSCH: --that's what I was talking about.

COMMISSIONER BARTHOLOMEW: And we're talking about all this in the context of budget cuts so that's why--

MR. BROSCH: Right.In fact--

COMMISSIONER BARTHOLOMEW: I mean there's what's likely to happen, but then there is what needs to happen.

MR. BROSCH: And in fact, if you saw the paper this morning, FDA is on the cover of USA Today about the effects of sequestration on the FDA.

HEARING CO-CHAIR WESSEL: Just to qualify, is it fee-based or appropriated funds for the FSIS?

MS. LOVERA: It's appropriated.

MR. WESTMAN: During regular business hours, FSIS pays for the inspectors. We pay for any overtime that's needed.

HEARING CO-CHAIR WESSEL: Okay. Thanks.

MR. WESTMAN: So it's appropriated on the eight-hour shift.

COMMISSIONER BARTHOLOMEW: Ms. Lovera.

MS. LOVERA: On the FDA side, a black hole is probably a good way to describe it. I mean it's just a total mismatch with the job to do and the resources they have. Obviously, we live in the new normal of budget constraints, but we're very concerned. The new law for FDA puts the role, puts FDA in the place of having to establish a system to use other governments and to use third-parties. We just put out a lot of cautions about what that means.

Organic is a very tiny sliver of the U.S. market. It's a very tiny sliver of the international market, but it's an example of using third-parties to certify a U.S. standard that the government writes. In 2010, the USDA suspended one of the certifiers that was operating in China, which is a known certifier that also operates in the U.S. They suspended them because they were using Chinese government employees to inspect a Chinese-controlled farm.

Third-parties are complicated enough in terms of what assurance they give consumers, what are their conflicts of interest, and doing that on a China-wide scale for food safety has to be done very carefully.

The Government Accountability Office did a report about this in the fall, I think it was in November, that just brings up a lot of these issues. There's a lot to think about regarding trying to use third-parties or even foreign governments to close that gap.

COMMISSIONER BARTHOLOMEW: Mr. Westman, anything? No.

MR. BROSCH: No. I hope that answers your question.

COMMISSIONER BARTHOLOMEW: Do you have any more to add? No?

MR. WESTMAN: No, no more to add.

COMMISSIONER BARTHOLOMEW: Okay. Great. Thank you. Thanks, Mr. Chairman.

MR. WESTMAN: Thank you.

HEARING CO-CHAIR SLANE: Thank you, gentlemen. We've gone past our time, and we appreciate all of your testimony. It's been very, very helpful. And we are adjourned for lunch.

MR. BROSCH: Thanks for the invitation.

[Whereupon, at 12:53 p.m., the hearing recessed, to reconvene at 12:51 p.m., this same day.]

PANEL III INTRODUCTION BY COMMISSIONER MICHAEL R. WESSEL

HEARING CO-CHAIR WESSEL: We'll begin this afternoon's session with a broad discussion of bilateral trade and investment between the United States and China. Since China's entry into the WTO a decade ago, it has become a major importer and exporter of agricultural goods. It is also looking to become a global agricultural player beyond its borders with major agribusiness and outbound investment.

The panelists will address the extent to which China has complied with its WTO commitments and provided a level playing field for foreign competitors and the private sector, not only in China but also in the U.S. and in third-country markets.

The panel will also look at how trade with China is influencing the local economy here in Iowa, which has one of our nation's most dynamic agricultural economies.

First we'll hear from Ms. Veronica Nigh, economist at the American Farm Bureau Federation. Ms. Nigh has worked at the Farm Bureau since 2011, where she analyzes a wide variety of economic questions affecting U.S. farmers, particularly those associated with shifts in trade policy. In this capacity, she has tracked U.S.-China trade quite closely.

Previously, she worked for three years as an international economist in the USDA Foreign Agricultural Service's Office of Negotiations and Agreements, analyzing the economic and policy implications of member country proposals as part of the ongoing WTO negotiations on agriculture.

Second, we'll hear from Dr. Colin Carter at UC-Davis and Director of the Giannini Foundation of Agricultural Economics. Dr. Carter's research and teaching interests include international trade, futures markets and commodity markets.

In 2001, he won the American Agricultural Economics Association's award for "Outstanding Essay for the 21st Century" for "Will China Become a Major Force in World Food Markets?," coauthored with Scott Rozelle, a leading agricultural economist at Stanford University.

Dr. Carter has traveled extensively in China studying China's domestic commodity markets and its participation in the international agricultural market.

Finally, we will hear from Mr. David Miller, Director of Research and Commodity Services for the Iowa Farm Bureau. Mr. Miller coordinates the research programs of the Bureau and the various commodities services offered by the Federation.

He provides economic analysis of agricultural issues and is a primary liaison for the Federation with state and national commodity organizations. Prior to working for the Iowa Farm Bureau Federation, Mr. Miller served as commodity policy specialist for the American Farm Bureau. He is also a long-time Iowa farmer with experience producing corn, soybeans and pork.

So with that, we'll begin, and Ms. Nigh, we'll start with you.

OPENING STATEMENT OF VERONICA NIGH
ECONOMIST, BUDGET AND ECONOMIC ANALYSIS
AMERICAN FARM BUREAU FEDERATION

MS. NIGH: Very good. Thank you very much for having me today.

Again, my name is Veronica Nigh. I'm here on behalf of American Farm Bureau Federation. We're the largest general farm organization in the country with members in every state including Puerto Rico and slightly over six million members.

The accession of China into the WTO has had a significant and important impact on U.S. agriculture. Despite the fact that China has experienced strong growth in the value of its agriculture production over the last few years, it remains a net importer of U.S. food and agricultural products with imports of nearly 26 billion and exports to the United States of about 4.5 billion in 2012.

Since China's accession to the WTO, the nation has grown to be the number one export destination for U.S. agricultural exports. In addition to this growth, China's WTO accession has led to significant changes in the country's agricultural policies. China has significantly reduced tariff rates on many products, decreased the number of goods subject to import quotas, expanded the number of Chinese enterprises with trading rights and the products they could import, and increased the transparency of its licensing systems.

At the same time, trade distorting and non-trade distorting domestic supports have increased. Yet, despite this progress in booming trade, bilateral trade issues in agriculture between the U.S. and China continue to exist, as they do with virtually all of our major trading partners.

In order to address these issues, the U.S. government and industry have actively engaged with China on trade issues, actions that have and will continue to contribute to success in our ability to market U.S. agricultural products in China.

As part of its WTO accession commitments, and a significant potential gain for U.S. agriculture, China established large tariff rate quotas for imports of wheat, corn, rice, cotton, wool, sugar, rapeseed oil, palm oil, soybean oil and fertilizer, with most in-quota duties ranging from one to 15 percent. The average in-quota duty is 4.8 percent, and the out-of-quota rate is around 50 percent. These TRQs are applied to imports from all countries.

According to the Protocol on China's Accession to the WTO, the process of quota allocation and reallocation is managed by the National Development and Reform Commission and the Ministry of Commerce. Under these processes, applicants have to meet basic criteria, including registration with the Administration of Industry and Commerce and pass an annual review of the enterprises by the Administration of Industry and Commerce, which excludes a number--these onerous procedures end up excluding a large number of participants.

Quotas are allocated based on volumes requested, previous imports, production capacity, or on a first-come/first-serve basis. Of concern to exporters is that state trading enterprises continue to dominate access to tariff quotas, being

allocated 90 percent of the wheat quota, 60 percent of the corn quota, 50 percent of the rice quota, 70 percent of the sugar quota, and 33 percent of the cotton quota.

China is behind on its tariff quota administration and notifications to the WTO with its last notification in 2003. The country has noted that the reason for this delay is that things haven't changed very much.

As far as their in-quota import notifications, they are somewhat more up-to-date on that, having recently notified in 2009. That notification in addition to earlier notification continues to show the in-quota imports for rice, wheat and corn have been low compared to the quota quantity.

In response to questions from the WTO Committee on Agriculture, China indicated it did not intend to review its methods for allocating quotas, and the low level of imports relative to the size of the tariff quota was due to high levels of domestic production coupled with high international prices. This remains a concern for exporters.

With regards to indirect taxes affecting imports, China realizes a significant amount of annual tax revenue from its value-added tax. There is concern among exporters that products that are imported —that the VAT is always applied to those products, yet application at a domestic level is not always consistent, therefore potentially harming export potential with VAT levels at 13 or 17 percent.

An additional issue related to China's VAT application is that the nation actively adjusts its VAT rebate program for exports. Currently, China does not rebate the full VAT, resulting in an export tax, which discourages exports. The effect of many of China's VAT rebate adjustments is to make larger quantities of primary and intermediate products in a particular sector available domestically at lower prices than the rest of the world, giving China's downstream producers the finished products using these inputs a competitive advantage over foreign downstream producers.

With regards to agricultural support, China's Protocol on Accession to the WTO with regards to agricultural domestic support was unlike any other country. The first way in which China's protocol was unique is that it did not include a commitment on aggregate measure of support, which is the sum of expenditures on non-exempted "amber box" domestic support aggregated across all commodities and policies.

Since no AMS commitment exists in the protocol, China can only provide support to agricultural producers up to the relevant de minimis level.

The de minimis exemptions allow all support for a particular product to be excluded from the reduction commitment if that support is not greater than a specific threshold of the total value of production of that agricultural product in question.

In addition, non-product-specific support which is less than a specific portion of the value of total agricultural production is also exempt from reduction. China's de minimis exemption is uniquely set at 8.5 percent, which is different than most other countries. Most developed countries face a five percent threshold.

Most developing countries face a ten percent threshold.

China's 8.5 percent threshold was a significant compromise to their advantage, as many would consider them to be a developed country. You can see my written comments for more on the specifics of their domestic policies.

But, in summary, China has grown to be one of U.S. agriculture's most important trade partners. As our trade relationship has grown and matured, we've solved a number of difficult issues though a number of challenges remain. However, American Farm Bureau Federation remains convinced that as our relationship continues to deepen, our ability to resolve trade issues quickly and fairly will continue to progress.

We thank you for the opportunity to provide testimony on this important trade relationship.

PREPARED STATEMENT OF VERONICA NIGH
ECONOMIST, BUDGET AND ECONOMIC ANALYSIS
AMERICAN FARM BUREAU FEDERATION

China's Agriculture Policy and U.S. Access to China's Market
Testimony before the U.S.-China Economic and Security Review Commission

Veronica Nigh on behalf of
American Farm Bureau Federation

April 25, 2013

Role of China

The accession of China into the World Trade Organization (WTO) has had a significant and important impact on U.S. agriculture. Despite the fact that China has experienced strong growth in the value of its agricultural production over the past few years, it remains a net importer of U.S. food and agricultural products, with imports of US$25.9 billion and exports of US$4.5 billion in 2012. Since China's accession to the WTO, the nation has grown to be the number one export destination for U.S. agricultural exports.

In addition to this growth, China's WTO accession has led to significant changes to the country's agriculture policies. China has significantly reduced tariff rates on many products, decreased the number of goods subject to import quotas, expanded the number of Chinese enterprises with trading rights and the products they could import, and increased the transparency of its licensing procedures. At the same time, trade-distorting and non-trade distorting domestic supports have increased.

Yet despite this progress and booming trade, bilateral trade issues in agriculture between the United States and China continue to exist, as they do with virtually all of our major trading partners. In order to address these issues, the U.S. government and industry have actively engaged with China on trade issues, actions which have and will continue to contribute to success in our ability to market U.S. agricultural goods and services.

Pre-Accession

Before discussing the extent to which China has met its WTO accession commitments, we would be remiss in not highlighting the import protocols China utilized prior to accession. Prior to accession, China restricted market access for U.S. agricultural products through various means: High tariffs, quantitative barriers, an opaque system of licenses and import permits, sanitary and phytosanitary measures, regulations and outright bans on many agricultural products were major obstacles to U.S. agricultural exports. China's average tariff rate for agriculture was around 22 percent, but many products were protected by much higher rates. Tariffs for grains, oilseeds and tobacco for example, were as high as 100 percent ad valorem. Further complicating exporters efforts, applied tariffs were often quite different from published rates or were applied at different rates depending of geographical points of entry.

China also limited the types and numbers of enterprises that had the legal right to engage in international trade. Only firms granted trading rights may import products into China and have access to China's distribution system. In addition, some products, such as grains, cotton, and vegetable oils could only be imported through state trading enterprises (STEs).

Post-Accession

The largely successful nature of China's accession reforms are exemplified by the rapid growth in U.S. exports. In value terms, U.S. agricultural exports to China have increased by an average of 31 percent per year since 2001. This rate of growth is slightly faster than for imports of goods as a whole. In 2000,

the U.S. exported $1.7 billion worth of agricultural products to China, our seventh-largest export destination at the time. By 2012, U.S. agricultural exports to China grew to $25.9 billion and China became our largest export destination. China has become so important that in 2012, 18 percent of all U.S. agricultural exports were to China.

The rate of growth in imports varies considerably from one product to another. China's trade pattern in agricultural commodities follows its comparative advantage: it tends to import land and resource-intensive commodities (soybeans, cotton, soybean oil, and increasingly corn, pork, distillers grains, dairy products and animal hides and skins), and it exports labor-intensive commodities (fish, fruits, vegetables, and processed agricultural goods). Not surprisingly then, China's primary 2012 imports from the United States were soybeans ($14.9 billion) and cotton ($3.4 billion). Beyond these two important crops, China imported an additional $7.5 billion of agricultural products from the U.S. in 2012. To put this amount in perspective, if our important exports of soybeans and cotton did not exist, China would still be the fifth-largest market for U.S. agricultural exports. To put it mildly, China is an important customer indeed.

Several factors, in addition to its import reforms, contribute to this important market--China's large population of 1.3 billion, rising incomes, a growing middle class that is the size of the total U.S. population--suggest that in the long term, China still has enormous expansion potential as a market for U.S. agricultural products. China has stated it envisions international trade will play an important role as it transitions from an economic model based on investment to a model based on domestic consumption. With the deepening of China's industrialization and urbanization process, this expanding domestic demand will, logically, lead to an increase in imports as well as domestic production. China hopes to become the world's largest import market.

Tariffs

All of China's tariff lines are bound at *ad valorem* rates. The applied MFN tariff rates are close to the bound rates, imparting a high degree of predictability. Bound rates varied from zero to 65 percent for agricultural products, and from zero to 50 percent for non-agricultural products in 2011. Unfortunately, China still maintains high duties on some products that compete with sensitive domestic industries. Agriculture is one of those industries and as a result the average tariff for agricultural goods is almost double that for all other products.

TRQs

As part of its WTO accession commitments, and a significant potential gain for United States agriculture, China established large tariff-rate quotas (TRQs) for imports of wheat, corn, rice, cotton, wool, sugar, rapeseed oil, palm oil, soybean oil, and fertilizer, with most in-quota duties ranging from 1 percent to 15 percent. TRQs are applied to eight categories of imported goods, six of which are agricultural products of interest to the United States: wheat, corn, rice, sugar, wool and cotton. The average applied in-quota rate was 4.8 percent, while the out-of-quota rate was around 50.4 percent. These TRQs are applied to imports from all countries.

According to the Protocol on China's Accession to the WTO, the process of quota allocation and re-allocation is managed by the National Development and Reform Commission and the Ministry of Commerce. Under these processes applicants have to meet basic criteria including registration with the Administration of Industry and Commerce, and pass an annual review of the enterprise by the Administration of Industry and Commerce and the inspection and quarantine authorities. The registration process can be quite onerous, which effectively excludes some market participants. Quotas are allocated based on the volumes requested, previous imports, production capacity, or on a first-come, first-served basis. Of concern to exporters is that state-trading enterprises continue to dominate access to tariff quotas, being allocated 90 percent of the wheat quota, 60 percent of the maize quota, 50 percent of the rice quota, 70 percent of the sugar quota, and 33 percent of the cotton quota.

China is behind in its tariff quota administration notifications to the WTO, with its most recent notification to the Committee on Agriculture being made over a decade ago in 2003. China has attributed its delay in notification by asserting there has been no change in tariff quota administration policy since then. The country has been somewhat timelier in other notifications, such as its report for in-quota imports as recently as calendar year 2009. Along with earlier notifications, this shows that in-quota imports for rice, wheat, and corn have been low compared to the quota quantity. In response to questions from the WTO Committee on Agriculture, China indicated it did not intend to review its methods for allocating quotas, and the low level of imports relative to the size of the tariff quota was due to high levels of domestic production coupled with high international prices. This remains a concern for exporters.

This situation serves to highlight the systemic problems with the administration of China’s TRQ system since its WTO accession, particularly with regard to insufficient transparency and the lack of administrative guidance affecting how the allocated quota is used. Although the United States has repeatedly engaged China bilaterally to discuss these concerns, as well as multilaterally through the WTO, concerns about inadequate transparency remain. For example, U.S. fertilizer exports to China have steadily declined throughout the post-WTO accession period, due in part to Chinese government policies that impose export duties and discriminatory internal taxes to promote the use of domestic fertilizer. It should also be noted that China’s internal fertilizer production has increased markedly during this same period of time.

Indirect Taxes Affecting Imports

China realizes a significant amount of annual tax revenue from Value-Added Taxes (VAT) imposed on nearly all enterprises and individuals engaged in the sale of goods, provision of processing, repairs and replacement services, and import of goods within China. VAT and excise taxes, where applicable, are also collected at the border on imports. The rates for imports and domestically produced goods are generally the same. However, uneven application of the VAT continues within China. Importers from a wide range of sectors report that because taxes on imported goods are reliably collected at the border, they are subject to the application of a VAT that domestic competitors often fail or are not required to pay. The lack of consistent VAT application can significantly impact competitiveness with current VAT rates at 13 percent or 17 percent for most goods.

An additional issue related to China's application of VAT is that the nation actively adjusts its VAT rebate program for exports. Currently, China does not rebate the full VAT, resulting in an export tax, which discourages exports. The effect of many of China's VAT rebate adjustments is to make larger quantities of primary and intermediate products in a particular sector available domestically at lower prices than the rest of the world, giving China's downstream producers of finished products using these inputs a competitive advantage over foreign downstream producers.

Agricultural Support

China's Protocol on Accession to the WTO with regards to agricultural domestic support was unlike any other country. The first way in which China's WTO protocol was unique is that it did not include a commitment on Aggregate Measure of Support, which is the sum of expenditures on non-exempted ("amber box") domestic support, aggregated across all commodities and policies. Since no total AMS commitment exists in the protocol, China can only provide support to agricultural producers up to the relevant de minimis level.

The *de minimis* exemptions allow any support for a particular product to be excluded from the reduction commitment if that support is not greater than a specific percent of the total value of production of the agricultural product in question. In addition, non-product-specific support which is less than a specific percent of the value of total agricultural production is also exempt from reduction. China's de minimis exemption is uniquely set at 8.5 percent of China's value of production (VOP), either on a product-wise for product-specific (PS) support or in total for non-product-specific (NPS) support. By comparison, the AMS de minimis level for "developing" countries is generally set at 10 percent and 5 percent for a "developed" country member. China's 8.5 percent threshold was a significant compromise, to their advantage as many would consider them to be a 'developed' country.

Because de minimis exemptions are based on a percentage of a country's VOP, the actual level of support provided grows as the value of production grows. According to a 2008 IFPRI report, "Thus there appears to be substantial room for China to extend its amber box subsidy measures through heavy use of the de minimis provision. To date neither the PS de minimis nor the NPS de minimis has imposed real constraints on domestic support measures in China because of the large value of agricultural production." With total value of production growth averaging 12 percent each year, it does not appear this condition will change any time soon.

After a long delay at the end of 2011, China finally submitted notifications on its domestic support policies (for 2005 to 2008) to the WTO. China reported that the value of its agricultural subsidies was below the WTO-compliant de minimis level of 8.5 percent of the value of agriculture production. Along with earlier notifications, this notification shows that support has increased significantly over the past ten years in both the Green and Amber Box with Green Box support at $85.3 billion USD (¥593 billion) in 2008, and Amber Box support at $12.8 billion USD (¥89 billion).

Most Green Box support notified is provided for general services, where infrastructure and other general services together represent nearly half of the total. Compensation for losses due to natural disasters and for direct payments to farmers is also a significant portion of Green Box support. Amber Box support,

which count against de minimus as notified to the WTO includes: insurance programs, input subsidies and internal price supports. However, despite this fairly large and growing level of Amber Box support, China notified support for this category of $12.8 billion USD (¥89 billion) is only 1.5 percent of its reported total value of production of $831.3 billion USD (¥5,777 billion), well within its 8.5 percent de minimis threshold.

For China, a number of critical issues related to domestic support are worthy of further investigation and analysis. First, through the WTO Trade Policy Review process, several countries have publicly questioned whether several of the Chinese programs that are notified as Green Box are actually Amber Box instead. These programs include, but are not limited to, direct payments that are not decoupled from production and programs that focus on specific commodities. For example, the U.S. government pointed out that China's stated intention of increasing grain production by increasing payments to grain producing areas, increasing minimum purchase prices for key grains, and improving temporary purchase and storage of bulk agricultural commodities all generally appear to be Amber Box measures, just as they are in the United States.

Secondly, the U.S. government has noted that China's methodology used to calculate certain measures of its support, particularly with its price support policies and direct payments, present potential concerns. Perhaps the largest concern among WTO members however has been that China only notifies central government level agricultural support programs, with *"no information made available on subsidies and other government assistance provided at the provincial level, which are believed to be considerable."* China has noted that "*substantial progress has been made in fulfilling the transparency obligation of the subsidies at the central level, China will work towards incorporating local subsidies in its future notifications. Although at this stage it is still difficult to propose a timetable, China will accelerate its efforts in this regard."*

SPS and TBT Measures

Sanitary and Phytosanitary measures (SPS) and Technical Barriers to Trade (TBT) are increasingly important in the trade of agricultural products, both generally in global trade and specifically in the case of bilateral trade with China. There are a number of outstanding SPS and TBT issues between the United States and China, but also a large number of instances where bilateral engagement has allowed our two nations to resolve outstanding issues.

As is common among many nations, policy surrounding SPS and TBT measures in China is quite complex. Overlapping authority and legislation can make understanding China's SPS standards difficult for exporters and governments alike. An effort to simplify and streamline both responsibility and legislation would go a long way towards mitigating trade disruptions.

Responsibility for policy, legislation, regulations and their implementation on sanitary and phytosanitary issues in China is divided among a number of government agencies: the State Food and Drug, the Ministry of Health, the Ministry of Agriculture, the Ministry of Commerce, the State Administration for Industry and Commerce and the General Administration of Quality Supervision, Inspection and Quarantine. The current statutes applicable to SPS issues in China are found in more than eight different

laws.

Issues related to government standards can often lead to TBT issues. There are many standards in China at numerous levels (i.e. central government, sub-central, industry etc.) yet there does not seem to be one central portal to which industries can consult that contains all the varying levels of standards, nor efforts to bring uniformity to these standards. Several countries have expressed concerns that this practice makes it difficult for exporters to know which standards must be followed. Further, many standards are available only in hard copy, while some are not available at all. Increased transparency could be provided and trade disruptions minimized by creating one electronic portal that provides access to lists of all standards that industries and companies must adhere to, and we would encourage governmental efforts to bring uniformity to these standards at all levels.

There are a number of ongoing trade disruptions related to SPS and TBT that are the focus of the U.S. government and industry alike. An exhaustive list of all of the issues is beyond the practical scope of this testimony. But a few high profile cases include:

- China continues to maintain market access barriers to U.S. beef and beef product exports that are inconsistent with international standards of the World Animal Health Organization (OIE). Work is need to move towards full consistency with the OIE guidelines on BSE with regards to the import of live U.S. cattle, beef, and beef products;
- Asynchronous approval of biotechnology products developed in foreign countries;
- China's ban on imports of pork containing any residue of Ractopamine;
- China's imposition of a zero tolerance limit for the presence of Salmonella, Listeria, and other pathogens in imported raw meat and poultry;
- restrictions on the number of varieties of U.S.-origin apple; and
- China's ban on imports of U.S.-origin table stock potatoes based on concerns over various plant pests and diseases.

Both China and the U.S. are members of the Codex Alimentarius, World Organization for Animal Health and the International Plant Protection Convention, which we hope proves instrumental in resolving these and future SPS and TBT issues in the future. We take their membership as a clear indication of commitment to the scientific principles in its SPS decision framework. Through reliance on the standards that these organizations set and continued good faith negotiations the United States and China should be able to resolve SPS and TBT issues. And there is evidence of progress - in September 2012, after nearly 20 years of discussions, a reciprocal agreement was reached that allows market access for pears.

Antidumping, Countervailing Duty and Safeguard Measures

Antidumping, countervailing duties and safeguard measures are used by a number of countries to protect home industry from foreign competition that is (or perceived to be) unfair. Since acceding to the WTO, China has become a significant user of antidumping measures, though we would point out that U.S. agricultural imports have not generally been the focus. A notable exception was the 2010 measures

against U.S. Distiller's Dried Grains (with or without solubles). In that case, a positive outcome of no duties being applied was reached as a result of intense U.S. government and industry interaction with the Chinese government.

While U.S. agricultural products have not been the focus of antidumping actions, three of the four countervailing investigations China has initiated are against the United States. In September 2009, China initiated an investigation into chicken broiler products from the United States. Provisional measures were first applied in April 2010 and final measures implemented four months later in August 2010. The United States government and several industry groups have expressed concerns about how China adheres to the transparency and procedural fairness requirements and substantive standards embodied in WTO rules. As a result, the United States initiated the chicken broiler products WTO dispute in September 2011. Hearings before a WTO panel took place in September and December 2012, and the panel is scheduled to issue its report sometime this year (2013).

Summary

China has grown to be one of U.S. agriculture's most important trade partners. As our trade relationship has grown and matured, we have solved a number of difficult issues, though a number of challenges remain. However, American Farm Bureau Federation remains convinced that as our relationship continues to deepen, our ability to resolve trade issues quickly and fairly will also continue to progress. We thank you for the opportunity to provide testimony on this important trade relationship.

Questions and Answers:

1. Since joining the WTO, to what extent has China met its commitments to reduce tariffs, quotas, cap and subsidies? Has China sought to circumvent its commitments through other means, such as lengthy inspections on imports or bans on certain products based on specious health claims?

   Please see sections with the following headings: Tariffs, TRQs, Agricultural Support, SPS and TBT Measures, and Antidumping, Countervailing Duty and Safeguard Measures.

2. Do China's direct payments to farmers, crop price supports, and value-added tax (VAT) practices discriminate against foreign products?

   Please see sections with the following headings: Indirect Taxes Affecting Imports and Agricultural Support.

3. Is China transparent about its agriculture and trade regulations and policies? Has China notified the WTO in a timely manner about its domestic subsidies, as the WTO requires?

   Please see sections with the following headings: TRQs, Agricultural Support, SPS and TBT Measures, and Antidumping, Countervailing Duty and Safeguard Measures

4. What are the key motivations behind China's use of domestic subsidies and its filing of anti-dumping and countervailing duty cases against the United States? What changes in policy or legislation would you recommend to Congress or the Administration?

   Please see sections with the following headings: SPS and TBT Measures, and Antidumping, Countervailing Duty and Safeguard Measures

OPENING STATEMENT OF DR. COLIN CARTER
DIRECTOR, GIANNI FOUNDATION OF AGRICULTURAL ECONOMICS
PROFESSOR, UC DAVIS

DR. CARTER: Mr. Chairman, members of the Commission, thank you for the opportunity to appear before you this afternoon to discuss developments in China's agricultural trade and implications for the United States.

I've been asked to discuss areas in which China has become a major exporter of agricultural products, the global importance of these exports, and factors that underline the export trends. In addition, I was invited to reference market access issues faced by China's agricultural exports.

China produces over 20 percent of the world's cereal grains, 25 percent of the world's meat, and 50 percent of the world's vegetables. China is the world's largest agricultural economy, and it ranks as the top global producer of pork, wheat, rice, tea, cotton, tomatoes, potatoes, eggs, wool, apples, walnuts, and fish, et cetera. In fact, the annual value of China's agricultural output is about two-and-one-half times that of the United States.

After joining the World Trade Organization in 2001, China increased its trade dependence on agriculture. As of 2011, it was the fourth-largest exporter and the second-largest importer of agricultural products in the world, according to the WTO trade statistics.

Its import growth has been driven by a shift in its domestic production mix and changing consumer diets with rising incomes and urbanization. China's substantial increase in fruit and vegetable production is a major factor behind its agricultural export growth.

In agriculture, China's major policy objectives are focused on increasing grain production and starting the transition to larger-scale farms. China has a relatively low set of agricultural import tariffs, compared to other WTO members, and the average applied most favored nation tariff rate on agricultural products was approximately 15 percent in 2011. Domestic support to agriculture in China remains below that for many developed countries.

With imports growing faster than exports during the post-WTO accession years, China has reversed its long-time status as a net agricultural exporter to that of a net importing country since 2004. Most of China's increased imports came from soybeans and cotton. Today cotton and soybeans account for over 40 percent of China's agricultural imports, a very concentrated portfolio. China is the world's largest importer of soybeans and cotton, accounting for over 60 percent of the global soybean imports and approximately 40 percent of the cotton imports.

It was expected that China's production and trade of agricultural products would be significantly affected by WTO entry, and this has turned out to be the case. China's agricultural exports have increased by more than 12 percent annually. Import growth has averaged 19 percent per annum. Total agricultural trade has grown by about 16 percent per year from the time of WTO accession until

today.

These are truly impressive annual growth rates. The changing structure of China's agricultural exports has been dominated by a very strong growth in exports of horticultural products, such as garlic, apples, pears and citrus, semi-processed food products such as pet food, and aquaculture, fish fillets. From 2001 to 2011, the annual growth in exports of the various categories from top to bottom was 18 percent for horticulture, 14 percent for semi-processed, 13 percent for aquaculture, and 12 percent for processed, such as apple juice or processed tomatoes. Bulk items grew much slower--two percent.

Regarding accomplishments in world markets, China's exports of aquacultural products have grown from eight percent of the world market in 2001 to 14 percent of the market today, a remarkable achievement.

China is very successful at exporting frozen fish fillets of various types, including salmon. There's a large fish processing industry in China that imports whole salmon and other fish from the United States, Russia and elsewhere, and then in turn reexports the fish fillets.

Another category that is also a strong export performer is horticultural products, rising from 2.5 to 5.6 percent of world exports, more than doubling its world market share.

But China's trade patterns have also been affected over concerns about food safety with certain food products. For instance, the melamine-spiked milk scandal of 2008 has led to a surge in China's imports of milk powder. China's skim milk powder imports were up 50 percent just in this last year alone, contributing to higher milk powder prices in world markets.

China is responding to the food safety issue and has recognized its food safety regulatory system must be reorganized, and it's doing that, modeled on the FDA in the United States.

China's agricultural trade is more and more in line with its comparative advantage, and it has noticeably increased imports of land-intensive agricultural products.

With regard to labor-intensive products, exports have increased after WTO accession, but actually imports of labor-intensive agricultural products have grown faster. Surprisingly, the import growth of labor-intensive agricultural products was extremely high and, for example, aquatic exports grew by 13 percent, but imports of aquatic products grew faster at 13.5, and the same is true for horticultural products, imports growing at 21 percent compared to exports at 18 percent.

So what does this all mean? Well, first of all, land-intensive imports are growing faster than labor-intensive exports. Labor-intensive imports are growing faster than labor-intensive exports. And there are likely three factors behind these trends.

First, there is a growing domestic demand for high-valued agricultural products. This is increasing with higher incomes and urbanization.

Second, China's agricultural labor is shifting away from agriculture to

higher-paying jobs in manufacturing and services.

And third, China's labor intensive agricultural exports do face headwinds in world markets due to trade barriers and perceptions of poor quality.

As mentioned, the United States enjoys an agricultural trade surplus with China which exceeded $20 billion in 2012. This is partly a result of reduced import barriers in China and their growing incomes and urbanization. It's been mentioned that China is the most important market for U.S. agriculture, and it is also the third most important supplier of U.S. agricultural imports. Based on value of trade, the top five U.S. agricultural exports to China are soybeans, cotton, corn, hides and skins, and swine offal.

On the other hand, the top five U.S. imports from China are apple juice, pet food, frozen tilapia fillets, canned citrus, and frozen salmon fillets. It is notable and striking that the sum total of China's agricultural exports to the U.S., such as pet food and apple juice, the total of all these exports to the U.S. is only two-thirds of the value of just one single item that the U.S. sells to China--soybeans.

China is an emerging competitor for U.S. farmers in some specialty crops, and China has a positive trade balance with the U.S. on horticultural products. But it's relatively small. U.S. food products do enjoy a certain advantage in China, and there are growing opportunities for these products because they're considered to be of high quality, but price does remain an obstacle because the share of disposable incomes spent on food in China is at 20 percent on average, much higher than what it is in the U.S. at seven percent.

Finally, turning to headwinds in foreign markets, impediments to foreign market access are an important issue to China. For instance, China's exports of horticultural products have been affected by antidumping investigations, launched by many countries. Globally, there's about 23 cases launched against China since the 1980s, and many of these have targeted horticultural products, resulting in very high tariff rates against Chinese firms.

Most antidumping cases are nothing more than hidden protectionism. Under U.S. law, China is treated as a non-market economy, and this results in some very high AD tariff rates in products such as garlic, mushrooms, apple juice concentrate, shrimp and crawfish tail meat.

HEARING CO-CHAIR WESSEL: Dr. Carter, if you could summarize?

DR. CARTER: Thank you. To conclude, after more than a decade following WTO accession, the value of China's agricultural trade has increased dramatically. Considerable resources have shifted away from land-intensive towards labor-intensive products. It's right that importers are concerned about food, animal and plant safety issues, but unfortunately these have been used, like antidumping, against China for protectionist purposes.

There is considerable interest in the impacts of China's rising income, a growing middle class and urbanization, and the associated changes in dietary patterns and food imports. However, these variables will only fully come into play if China's trading partners are willing to recognize that international trade is a

two-way street.

PREPARED STATEMENT OF DR. COLIN CARTER
DIRECTOR, GIANNI FOUNDATION OF AGRICULTURAL ECONOMICS
PROFESSOR, UC DAVIS

Testimony Before the U.S.-China Economic and Security Review Commission
Hearing on "China's Agriculture Policy and U.S. Access to China's Market."

Colin A. Carter[921]

Professor of Agricultural & Resource Economics, UC Davis
Director, Giannini Foundation of Agricultural Economics, University of California
April 25, 2013

Mr. Chairman, members of the Commission, thank you for the opportunity to appear before you this afternoon to discuss developments in China's agricultural trade and implications for the United States. I have been asked to discuss areas in which China has become a major exporter of agricultural products, the global importance of these exports, and factors that underlie the export trends. In addition, I was also invited to reference market access issues faced by China's agricultural exports.

China produces over 20% of the world's cereal grains, 25% of the world's meat, and 50% of the world's vegetables. China is the world's largest agricultural economy, and it ranks as the top global producer of pork, wheat, rice, tea, cotton, tomatoes, potatoes, eggs, wool, apples, walnuts, and fish, etc. In fact, the annual value of China's agricultural output is about two and one-half times the U.S. total.[2]

After joining the World Trade Organization (WTO) in 2001, China increased its trade dependence on agriculture. As of 2011 it was the fourth largest exporter and second largest importer of agricultural products in the world, according to WTO trade statistics. Its import growth has been driven by a shift in its domestic production mix, and changing consumer diets with rising incomes and

[1] I am grateful to Sandro Steinbach and Dingqiang Sun for excellent research assistance.

[2] According to FAO (faostat) the gross value of China's agricultural output in 2010 was $838 billion, compared to $319 billion for the United States.

urbanization. China's substantial increase in fruit and vegetable production is a major factor behind it agricultural export growth.

In agriculture, China's major policy objectives are focused on increasing grain production and starting the transition to larger-scale farms. China has a relatively low set of agricultural import tariffs compared to other WTO members–the average applied MFN tariff on agricultural products was approximately 15% in 2011. Domestic support to agriculture in China remains below that for many developed countries.

With imports growing faster than exports during the post-WTO accession years, China reversed its long-time status as a net agricultural exporter to that of a net importing country since 2004. Most of China's increased imports came from soybeans and cotton. Today cotton and soybeans account for over 40% of China's agricultural imports, a very concentrated portfolio. China is the world's largest importer of soybeans and cotton, accounting for over 60% of global soybean imports and approximately 40% of cotton imports.

It was expected that China's production and trade of agricultural products would be significantly affected by WTO entry and this has turned out to be the case. China's agricultural exports have increased by more than 12 percent annually. Import growth has averaged 19 percent per annum, while total agricultural trade has grown by more than 16 percent per annum from 2002 to 2011. These are truly impressive annual growth rates.

The changing structure of China's agricultural exports has been dominated by very strong growth in exports of horticultural products (e.g., garlic, apples, pears, and citrus), semi-processed food products (e.g., animal products, pet food), and aquaculture (e.g., fish fillets). From 2001-2011 the annual growth in exports of the various categories, from top to bottom, was 18 percent for horticulture exports, 14 percent for semi-processed foods, 13 percent for aquaculture, 12 percent for processed (e.g., apple juice, processed tomatoes), and less than 2 percent for bulk items such as tea or tobacco.

Regarding accomplishments in world markets, China's exports of aquaculture products have grown from 8 percent of the world market in 2001 to 14 percent of the market in 2011, a remarkable achievement. China is very successful at exporting frozen fish fillets of various types, including salmon. There is a large fish processing industry in China that imports whole salmon and other fish from the U.S., Russia, and elsewhere and then, in turn, re-exports fish fillets. Another category that is also a strong export performer is horticultural products, rising from 2.5% to 5.6% of world exports, more than doubling its market share. But China's trade patterns have also been affected by concerns over food safety with some food products. For instance, the melamine-spiked milk scandal of 2008 has led to a surge in China's imports of milk powder–China's skim milk powder imports were up about 50 percent just in the past year, contributing to higher milk powder prices in world markets. China is responding to the food safety issue and has reorganized its food safety regulatory system, modeled on the FDA in the United States.

China's agricultural trade is more and more in line with its comparative advantage and it has noticeably increased imports of land intensive agricultural products. But what about its trade in labor-intensive products? Although exports of labor-intensive agricultural products did increase quite fast after WTO accession (especially for fruits and vegetables), the rate of increase for these years was lower than imports of land-intensive agricultural products. For instance, the annual export growth rate for labor-intensive fruits and vegetables was 22 and 16.7 percent, respectively. At the same time, imports of land-intensive soybeans and cotton grew by 25 and 35.7 percent, respectively.

Surprisingly, the import growth of labor-intensive agricultural products was also quite high, in fact greater than the export growth rate of these products for the same period. Aquatic exports grew by 13.3 percent, slightly less than aquatic import growth of 13.5 percent. Horticultural exports grew by an impressive 18 percent per annum but imports grew even faster, at 21 percent per annum. So what do all these numbers suggest regarding China's trade? First, land intensive imports are growing faster than labor-intensive exports. Second, for labor-intensive products, imports are actually growing faster than exports. There are

three likely factors behind these trends. First, there is growing domestic demand for high valued agricultural products including labor-intensive imports, increasing with income and urbanization. Second, China's agricultural labor is shifting away from agriculture to the higher paying manufacturing and service sectors. Third, China's labor-intensive agricultural exports face headwinds in world markets due to trade barriers and perceptions of poor quality.

The United States enjoys an agricultural trade surplus with China, which exceeded $20 billion in 2012. This is partly a result of reduced import trade barriers in China, and growing incomes and urbanization. China is the most important market for U.S. agricultural exports (accounting for 17.2 percent of U.S. agricultural exports in 2012) and the third most important supplier of U.S. agricultural imports (with a market share equal to 4.2 percent of U.S. agricultural imports in 2012). Based on value of trade, the top five U.S. agricultural exports to China (in order of importance) are soybeans, cotton, corn, hides/skins, and swine offal. On the other hand, the top five U.S. imports from China are apple juice, dog/cat food, frozen tilapia fillets, canned citrus, and frozen salmon fillets. It is notable that the sum total of China's agricultural exports to the U.S. represents only two-thirds of the value of just one single item that the U.S. sells to China–soybeans.

China is an emerging competitor for U.S. farmers in some specialty crops, and China has a positive trade balance with the U.S. on horticultural crops, although the total dollar value is a relatively small share of total agricultural trade. Figure 4 shows China had a trade surplus of $40 million in horticultural products with the U.S. in 2011, down from $157 million in China's favor in 2007. The 2011 $40 million surplus is only 1 percent of the value of agricultural trade between the U.S. and China. China's growing demand for almonds, pistachios, and walnuts is a positive development for U.S. agriculture. And per capita consumption of these specialty crops is still very low in China. For instance, per capita consumption of almonds in China is only about 5 percent of the U.S. figure.

U.S. food products enjoy a certain advantage in China and there are growing opportunities for U.S. products, considered to be high quality. However, price

remains an obstacle for U.S. products in the China market. Chinese consumers spend about 20 percent of their disposable income on food consumed at home, compared to less than 7 percent of income spent on at-home food in the U.S., on average.

Impediments to foreign market access are an issue for Chinese agribusiness firms. For instance, China's agricultural exports of horticultural products have been adversely affected by anti-dumping (AD) investigations against them launched by firms in both developing and developed countries. Globally, there have been about 23 AD cases against China's agriculture since that market opened up in the early 1980s and many of the AD actions in agriculture targeted horticultural products–resulting in very high tariff rates against Chinese firms. Most antidumping cases are nothing more than hidden protectionism. Under U.S. AD law China is treated as a "non-market economy" and as a result its exporters have been assessed tariffs higher than typical AD rates applied to so-called market economies.[3] U.S. AD cases against China's exports have targeted imports of fresh garlic, preserved mushrooms, apple juice concentrate, shrimp, and crawfish tail meat. With the exceptions of honey and shrimp, these cases have had mixed success at keeping out Chinese exports for more than a few years. But in each and every case the U.S. consumer has paid higher prices as a result of the dumping orders. Honey from China has clearly been kept out. China's share of U.S. honey imports was around 30 percent when the AD case was initiated in 2000, and today that market share is near zero. Instead the U.S. imports honey from India, a higher cost supplier. This is called trade diversion, good for the honey industry in India and the U.S., but costly for U.S. consumers.

To conclude, after more than a decade following WTO accession, the value of China's agricultural trade has increased dramatically and China has turned into a net importer of agricultural products and now ranks as the number one foreign market for U.S. agriculture. Although considerable resource shifts have taken place from land-intensive towards labor-intensive agricultural products in both

[3] U.S. Government Accountability Office (GAO) "U.S.-China Trade: Eliminating Nonmarket Economy Methodology Would Lower Antidumping Duties for Some Chinese Companies" (10-JAN-06, GAO-06-231).

production and trade, this transfer remains well below the potential, partly due to trade barriers facing China's exports of labor-intensive agricultural products. Food, animal and plant safety are rightfully a concern of importing countries, but have unfortunately been used, like AD, for protectionist purposes. There is considerable interest in the impacts of China's rising income growth, a growing middle class and urbanization, and the associated changes in dietary patterns and food imports. These variables will only fully come into play if China's trading partners are willing to recognize that international trade is a "two-way" street.

Table 1. Annual Growth Rates of China's Agricultural Exports Since WTO Accession

	Aquaculture	Bulk	Processed	Horticultural	Semi-Processed
2001-2011 annual growth rate in value of exports	13.3%	1.7%	12.2%	18.0%	14.5%

Source: compiled from US COMTRADE data.

Table 2. Trade Growth Rate of China's Land- and Labor-intensive Agricultural Products, 2001 to 2011

Labor Intensive Exports		Land Intensive Imports	
vegetables	16.7%	cotton	35.7%
fruits	22.0%	vegetable oil	24.7%
aquatic products	13.3%	soybeans	25.0%
livestock products	7.7%		

Note: Growth rates were calculated using the regression method.
Source: compiled from UN COMTRADE data.

Table 3. Export and Import Trade Growth Rate of China's Labor-intensive Agricultural Products, 2001 to 2011

	Aquatic Products	Livestock Products	Horticultural Products
Exports	13.3%	7.7%	18.0%
Imports	13.5%	15.8%	21.0%

Note: Growth rates were calculated the regression method.
Source: compiled from UN COMTRADE data.

Table 4. Major U.S.-China Agricultural Products Traded Bilaterally in 2012

U.S. Exports to China		U.S. Imports from China	
Item	**Value (Mil.)**	**Item**	**Value (Mil.)**
Soybeans	$15,374	Apple Juice	$561
Cotton	$3,686	Dog and Cat Food	$467
Corn	$1,658	Frozen Tilapia fillets	$444
Hides and Skins	$1,219	Canned citrus	$233
Frozen swine offal	$744	Frozen Salmon fillets	$216

Source: USDA FAS GAIN Report 2/25/2013, based on China Customs Data.

Table 5. China's Share of U.S. Imports of Targeted Agricultural Products

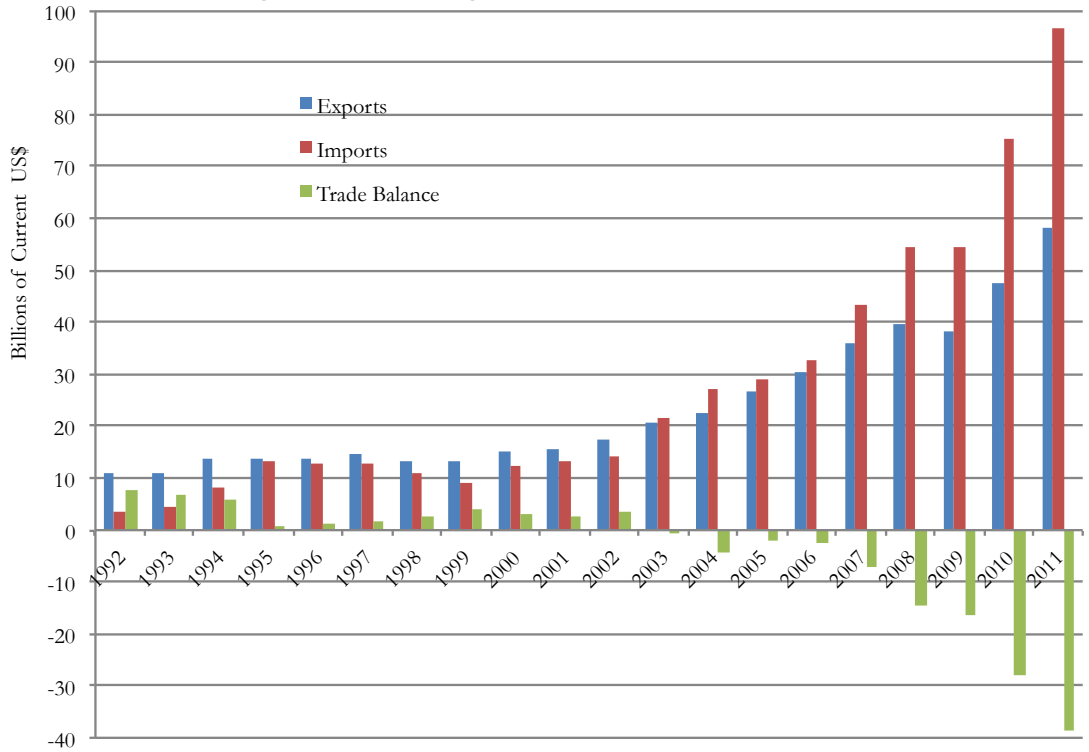
Year	Fresh Garlic (%)	Preserved Mushrooms (%)	Non-Fz. Apple Juice Conc. (%)	Honey (%)	Warm water shrimp (%)	Crawfish Tail Meat (%)
1992	18	25	0	45	19	83
1993	64	29	1	48	12	94
1994	**29**	28	1	43	8	100
1995	2	4	1	25	6	99
1996	0	54	2	25	3	**100**
1997	1	52	8	15	5	100
1998	1	**41**	19	23	2	90

1999	2	0	**13**	28	3	89
2000	1	6	17	**30**	6	82
2001	10	16	16	27	8	92
2002	4	18	24	8	11	84
2003	56	34	37	25	15	92
2004	70	42	57	33	**11**	90
2005	74	46	58	28	2	88
2006	78	44	55	26	2	96
2007	82	57	75	17	2	94
2008	82	58	81	11	4	93
2009	87	63	83	0	3	70
2010	84	66	86	1	4	90
2011	86	57	73	1	3	88
2012	84	60	84	0	0	88

Source: Updated from C.A. Carter, and C. Gunning-Trant "China's Food Exports Face Dumping Laws" *American Journal of Agricultural Economics*, Vol. 88, No. Issue 5, (2006): 1227-1234.

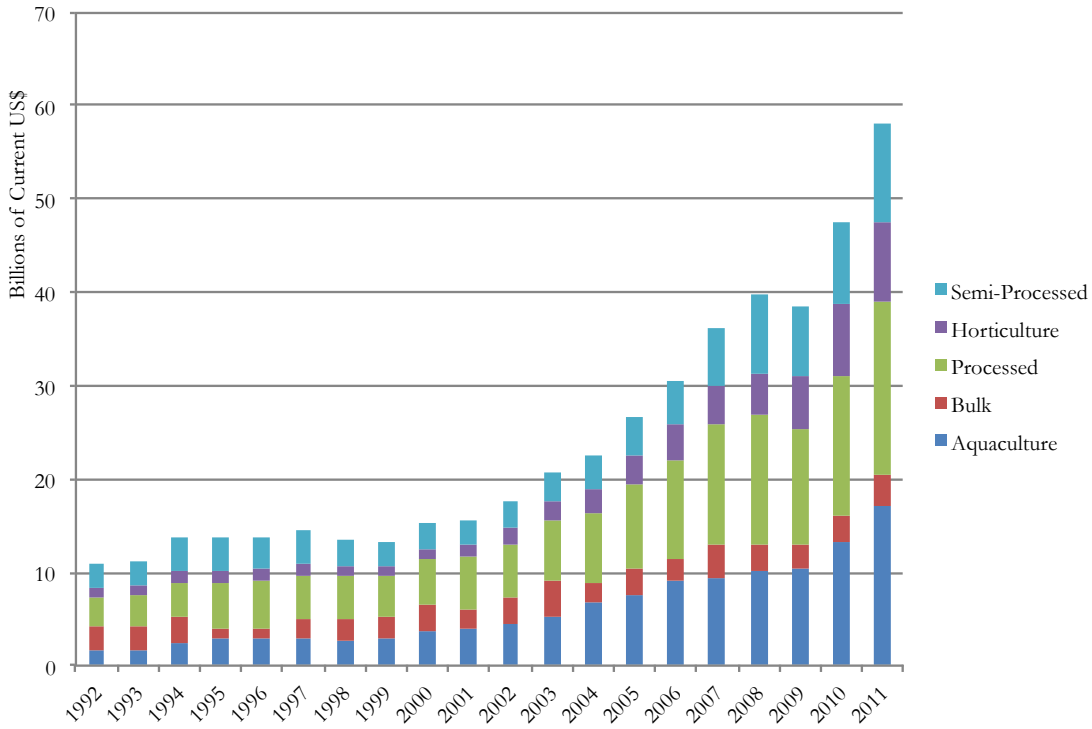
Note: Bolded figures indicate the year the AD case was initiated for that particular commodity. Market shares are based on quantities imported, based on U.S. trade statistics.

Figure 1. China's Agricultural Trade Balance



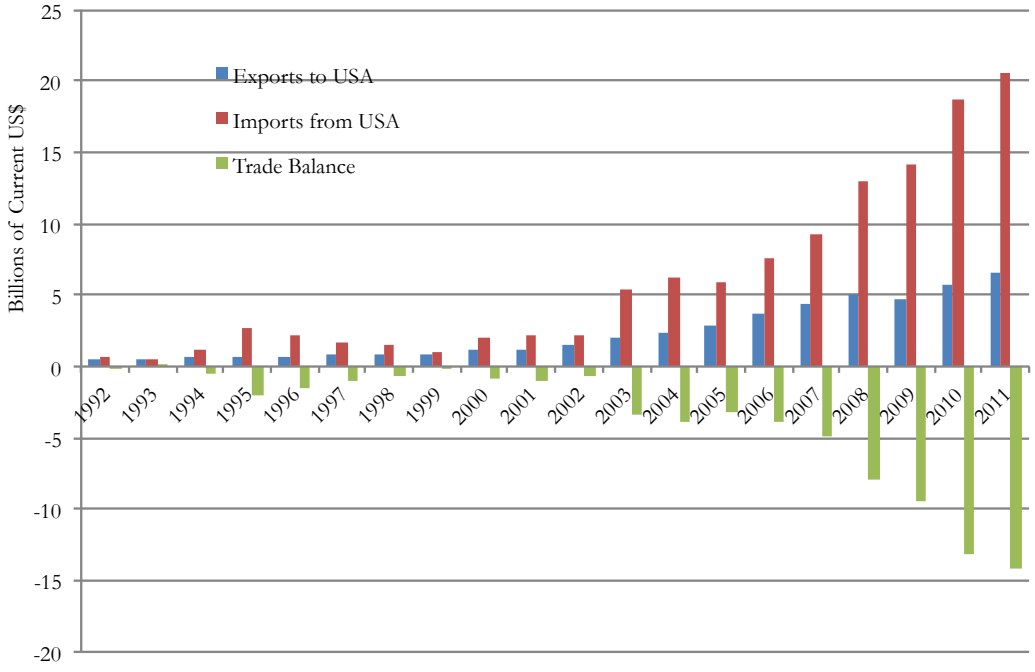
Source: UN COMTRADE Database.

Figure 2. China's Exports of Major Commodity Groups



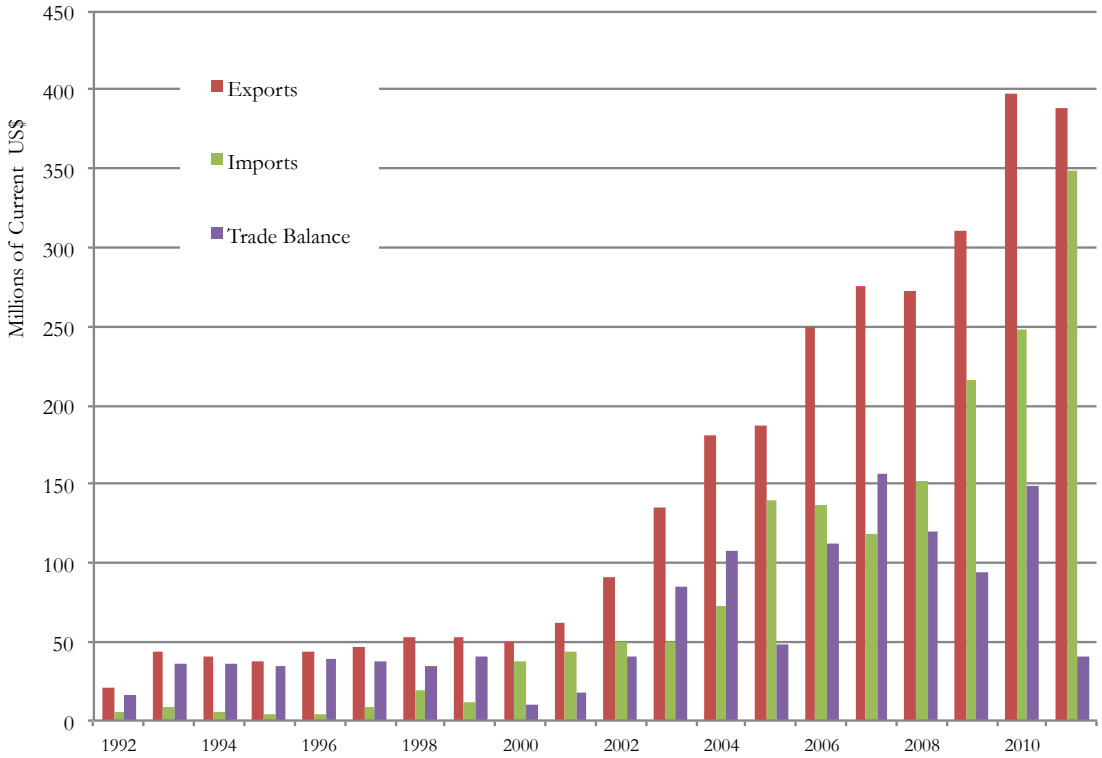
Source: UN COMTRADE Database.

Figure 3. China's Agricultural Trade Balance with the U.S.



Source: UN COMTRADE Database.

Figure 4. China's Trade Balance with the U.S. in Horticulture



Source: UN COMTRADE Database.

OPENING STATEMENT OF DAVID MILLER
DIRECTOR OF RESEARCH, IOWA FARM BUREAU

MR. MILLER: Thank you for the opportunity to provide testimony regarding U.S. access to China's markets and the various aspects of U.S.- China trade policy. U.S. agricultural production has been rapidly rising since 2002. The value of crop production has risen from $83 billion in 1990 to 210 billion in 2012, an increase of 253 percent.

U.S. livestock production has grown from 90 billion in that time period to 170 billion in 2012, 189 percent. Agricultural exports now equal 32 percent of the value of U.S. agricultural production. In Iowa, we produce about $18 billion of crops at this point. Livestock production is above 12 billion. Total agricultural production is above $32 billion. Iowa accounts for about 7.8 percent of national agricultural production.

Exports have been an important part of U.S. agricultural markets for more than 40 years, but they have been an increasingly important part of the market structure in the last decade. From 1990 to 2012, U.S. exports have grown from $39 billion to more than 141 billion, an increase of 357 percent. Much of this growth has been spurred by exports of agricultural goods to China and Taiwan. In 1990, exports to China and Taiwan accounted for six percent of our agricultural exports. By 2012, they accounted for more than 20 percent.

Trade with China is very important for U.S. grain and livestock farmers. Since 1990, U.S. exports of all ag products have risen from 2.4 billion to more than $29 billion annually, a 1,200 percent. A significant portion of the increase in ag trade with China has been $15.5 billion in soybean and soybean product trade. Whole soybeans account--to all destinations around the world, currently account for 42 percent of U.S. soybean production with another 13 percent of production being exported as oil or meal products.

During the same time frame, U.S. red meat exports to China and Taiwan have increased from 15 million to nearly 900 million. A very significant portion of the red meat exported to China and Taiwan is pork, with about one-third of that originating from Iowa farms.

While export sales have been important to U.S. agriculture, they're even more important to Iowa farmers. The value of production of Iowa crops exceeded $17 billion in 2011. In fact, in 2012, they were above $18 billion. The two most important crops to Iowa farmers are corn and soybeans.

Iowa farmers typically produce about 18.5 percent of U.S. corn crop and about 15 percent of the U.S. soybean crop. During the past 20 years, annual sales of Iowa corn and soybeans to China and Taiwan have grown from $110 million to nearly 2.5 billion. That's a 2,270 percent increase.

Iowa produces nearly one-third of U.S. pork and five percent of U.S. beef. Pork production in Iowa contributes more than six billion to the state agricultural economy and beef production contributes about 3.5 billion. More than 39,000 jobs in Iowa are directly related to pork production and another 25,000 jobs

are indirectly related to pork production. More than 30,000 farms in Iowa are involved in beef production. Livestock production is a major source of employment in Iowa, and the expansion of exports to China is enabling meat production in Iowa to expand.

The growth in red meat exports translates to Iowa farmers sending nearly $236 million worth of pork and beef to China and Taiwan.

In 2001, in terms of expectations, it was expected that the Chinese domestic corn production would grow slowly for the next decade. Those expectations were met for the first part of the decade, but domestic production increased more rapidly than expected in the last half of the decade. With continued higher global grain prices, expectations for domestic Chinese corn production have increased even more in the latest projections.

Whether implicitly or explicitly stated, China has clearly prioritized corn production relative to soybean production. Chinese soybean production has declined relative to expectations in 2001. The decline in soybean production relative to corn has accelerated as global grain prices have increased. This change in production priorities makes sense since the freight charges to ship a ton of corn from the Western hemisphere is essentially the same as it is for a ton of soybeans. Thus, as a percentage of the cost of the delivered product, shipping soybeans adds less per ton to the cost of the product than does shipping corn.

The Chinese buyers also have more competitive options for sourcing soybeans around the world than they do for corn. Chinese domestic beef production has declined from expectations in 2001 and lowered expectations for the next decade are manifest in the most recent projections.

It is unlikely that given current grain prices and other factors that Chinese domestic beef production will be ramped up to displace any imports. According to Chinese official government data, and I make that qualification because there's real disputes about what the actual pork production in China is, but using their data, pork production has performed nearly as expected for the past decade. Production grows at about 2.5 percent.

This growth rate reflects little change in hog inventory numbers and mostly reflects a productivity increase being realized in China in pork production as they move from primitive and backyard production to more modern production.

I'm going to skip over the barriers to trade. I think those were covered by a number of other people, and focus a little bit on the capacity of U.S. and Iowa agriculture to satisfy the future demand. Corn production is growing in the U.S. at about 225 million bushels per year. That trend is expected to continue out over the foreseeable future. It is likely that despite the setbacks we had in 2012 because of the drought, we're going to have corn production that probably sets an all-time record in 2013 and 14 billion or larger bushel crops are likely in the years ahead.

Soybean production is expanding also, exceeding three billion bushels in six of the last eight years. Over the past 20 years, soybean production is increasing at about 57 million bushels per year. National planted acreage has grown to more than 77 million acres. This is coming from a displacement out of

wheat, cotton and some other crops.

When we look at what are the driving facotrs, there are probably three factors really driving production changes in the U.S. Number one is yield increases. Number two is acreage increases as we move some of the land out of the Conservation Reserve Program, and I do emphasize the reserve part of that. This was never a conservation retirement program. It was always this would be brought back into production when needed, and the third is adoption of technology that is being manifest in yields and in other factors.

The last part is one I'd like to cover just a little bit, and that is the environmental side. From an environmental perspective, there is significant room for Iowa to increase pork production. Currently, Iowa farmers apply about one million tons of nitrogen from commercial fertilizer on Iowa farms and about 250,000 tons of nitrogen from manure. About 70 percent of the manure-based nitrogen is from hog production. If all of the commercial nitrogen for corn were to be replaced by nitrogen from hog manure, the Iowa hog herd would need to be currently five times as large as it is for increased production.

I think I'll stop there and allow other things to come forth in the questions. Thank you for this opportunity to provide testimony.

PREPARED STATEMENT OF DAVID MILLER
DIRECTOR OF RESEARCH, IOWA FARM BUREAU

China's Agriculture Policy and U.S. Access to China's Market

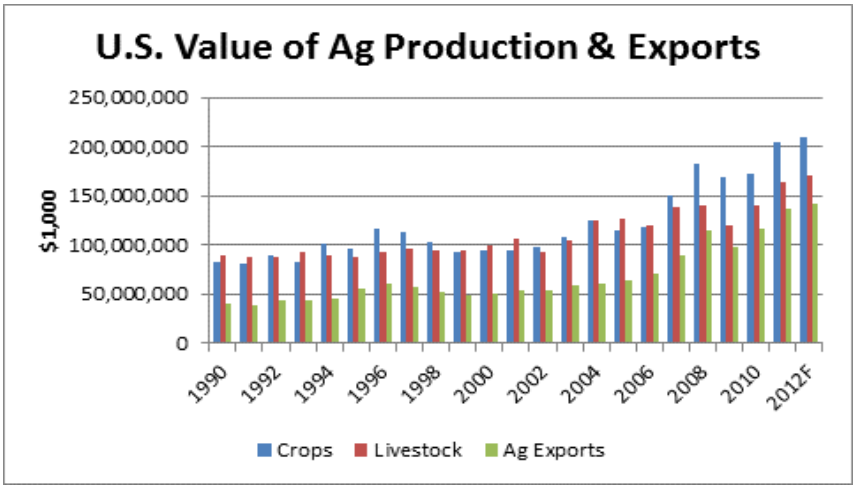
By
David Miller, Director of Research & Commodity Services
Iowa Farm Bureau Federation
April 25, 2013
Ames, Iowa

Thank you for this opportunity to provide testimony regarding U.S. access to China's markets and various aspects of U.S.-China trade policy. My name is David Miller. I am the director of research and commodity services for the Iowa Farm Bureau Federation and the owner-operator of a 630 acre farm in southern Iowa. The Iowa Farm Bureau is the largest general farm organization in Iowa with more than 153,000 member families and a member of the American Farm Bureau Federation.

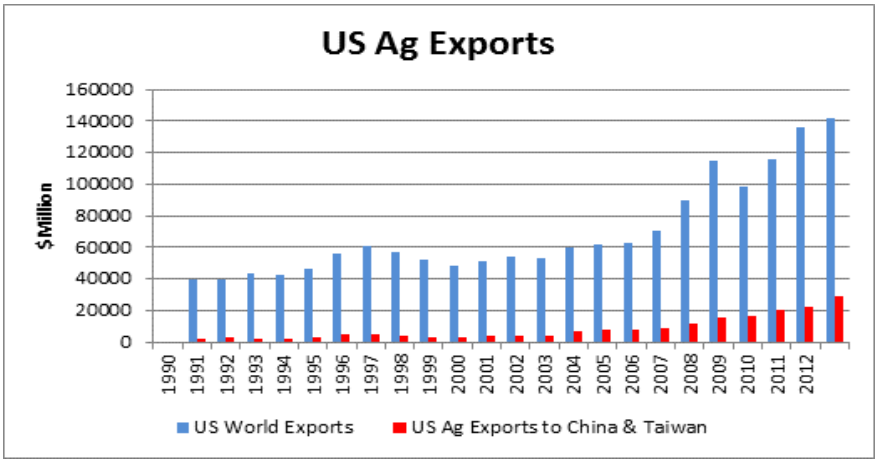
Impact of Asian Markets on Iowa's Agricultural Economy

I have been asked to address several questions regarding agricultural trade with China. The first set of questions inquires about the overall impact of Asian and Chinese markets on Iowa's agricultural economy with comparisons to the past couple of decades and to the coming ten years; to what degree exports to China have met expectations when China joined WTO in 2001; and what pathways Chinese domestic agricultural production is taking and whether they are favoring Chinese domestic production over imports.

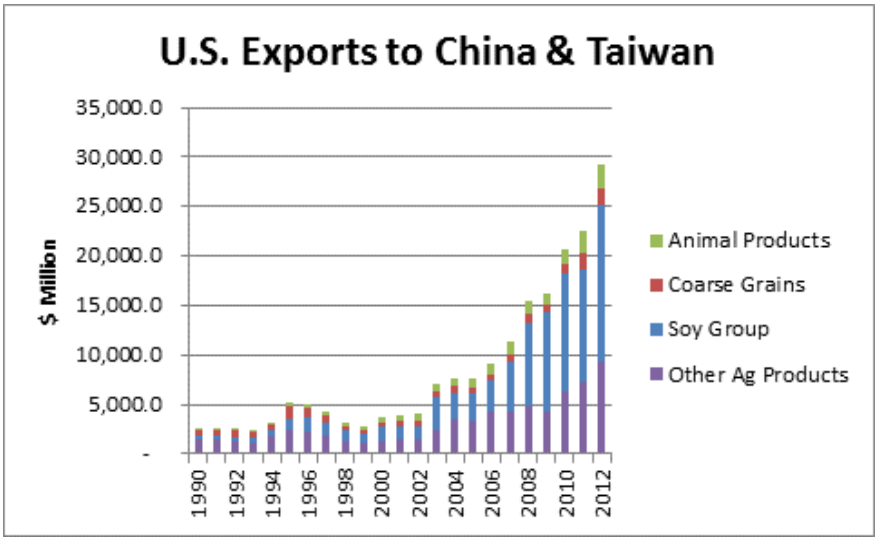
U.S. agricultural production has been rapidly rising since 2002. The value of crop production has risen from $83 billion in 1990 to $210 billion in 2012, an increase of 253 percent. U.S. livestock production has grown from $90 billion in 1990 to $170 billion in 2012, an increase of 189 percent. Agricultural exports now equal 32 percent of the value of agricultural production. The value of crop production in Iowa now exceeds $18 billion. The value of livestock production in Iowa now exceeds $12 billion with a total value of production of the agricultural sector exceeding $32.8 billion. In 2012, Iowa accounted for 7.8 percent of the national value of agricultural production.



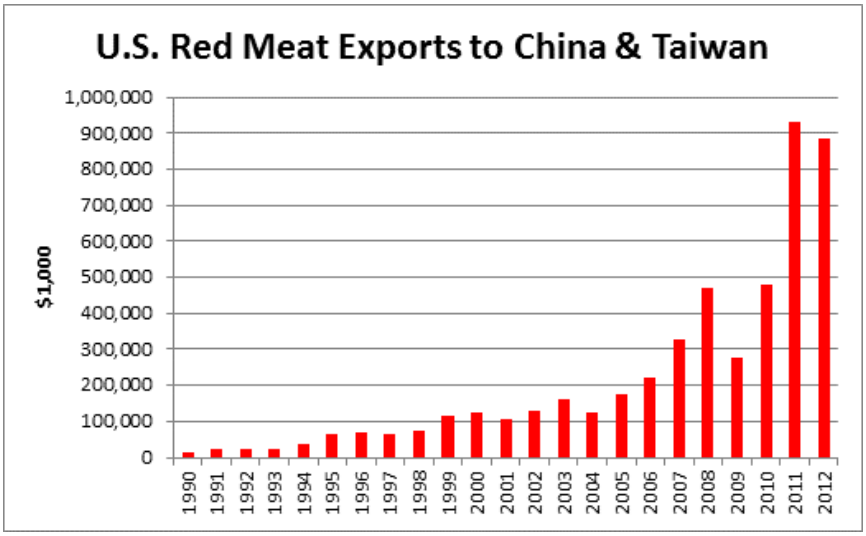
Exports have been an important part of U.S. agricultural markets for more than 40 years, but have been an increasingly important part of the market structure in the last decade. From 1990 through 2012, annual U.S. exports have grown from $39.5 billion to more than $141 billion, an increase of 357 percent. Much of this growth has been spurred by exports of agricultural goods to China and Taiwan. In 1990, exports to China and Taiwan accounted for 6 percent of U.S. agricultural exports. In 2012, China and Taiwan accounted for more than 20 percent of U.S. agricultural exports.



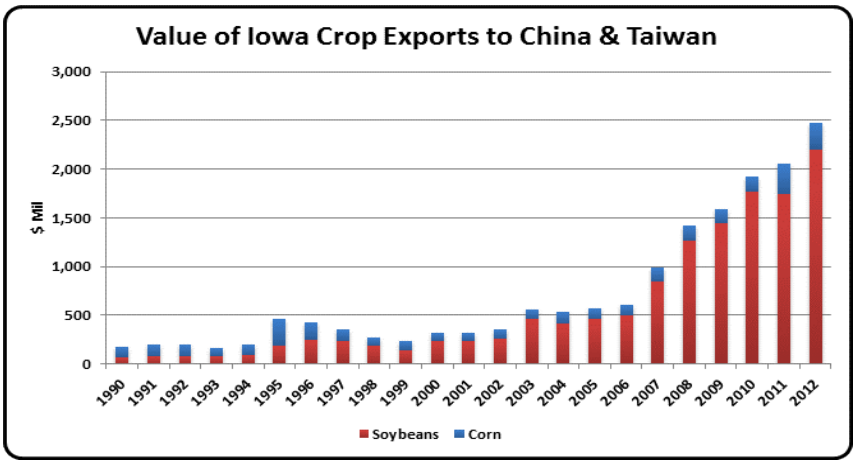
Trade with China is very important to U.S. grain and livestock farmers. Since 1990, U.S. exports of all agricultural products have risen from $2.4 billion to more than $29 billion annually, a 1,200% increase. A significant portion of the increase in agricultural trade with China has been a $15.5 billion increase in soybean and soybean products trade. Whole soybean exports to all destinations currently account for 42 percent of U.S. soybean production with another 13 percent of production being exported as soybean oil and meal products.



During that same timeframe, U.S. red meat exports to China and Taiwan have increased from $15 million to nearly $900 million. A very significant portion of the red meat exported to China and Taiwan is pork, with about one-third of that originating from Iowa farms.



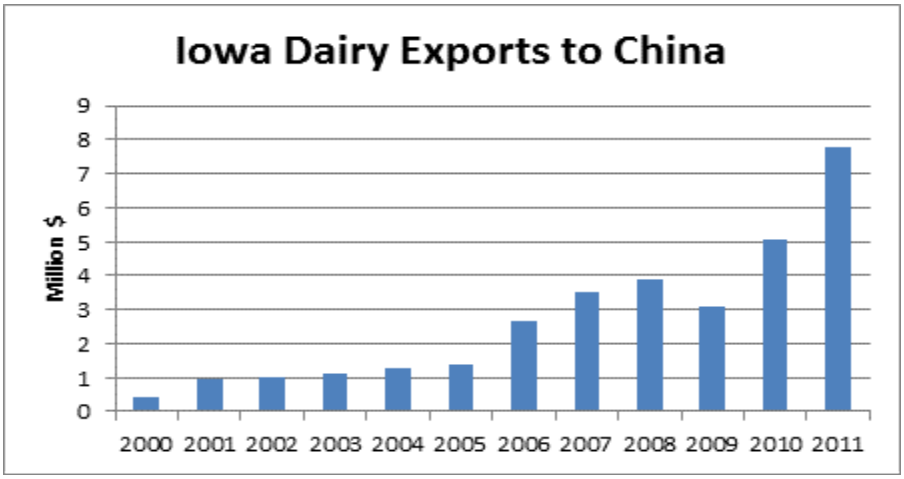
While export sales have been important to U.S. agriculture, they are even more important to Iowa farmers. The value of production of Iowa crops exceeded $17 billion in 2011. The two most important crops to Iowa farmers are corn and soybeans. Iowa farmers typically produce 18.6 percent of the U.S. corn crop and about 15 percent of the U.S. soybean crop. During the past twenty years, annual sales of Iowa corn and soybeans to China and Taiwan have grown from $110 million to nearly $2.5 billion, a 2,270% increase.



Iowa produces nearly one-third of U.S. pork and about 5 percent of U.S. beef. Pork production in Iowa contributes more than $6 billion to the state agricultural economy and beef production contributes nearly $3.5 billion. More than 39,000 jobs are directly related to pork production in Iowa and another 25,000 jobs are indirectly related to pork production. More than 30,000 farms in Iowa are involved in beef production. Livestock production is a major source of employment in Iowa and the expansion of

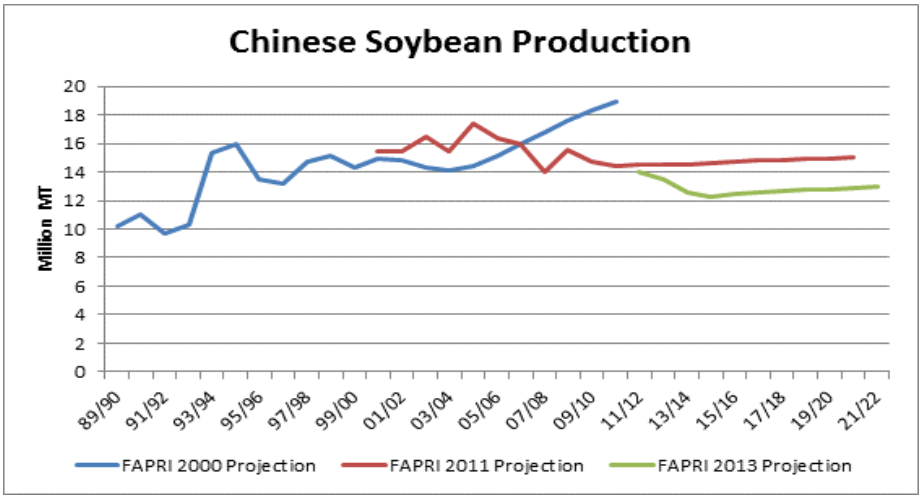
exports to China are enabling meat production in Iowa to expand. The growth in red meat exports translates to Iowa farmers sending nearly $236 million worth of pork and beef to China and Taiwan.

Iowa has slightly more than 200,000 dairy cows, representing 2.2 percent of the U.S. dairy herd. Dairy product exports, such as cheese, nonfat dried milk, and whey, to China have been increasing in recent years, with dairy exports from Iowa approaching $8 million. Dairy production contributes more than $888 million to producer income in Iowa, an increase of 61 percent in the past decade.

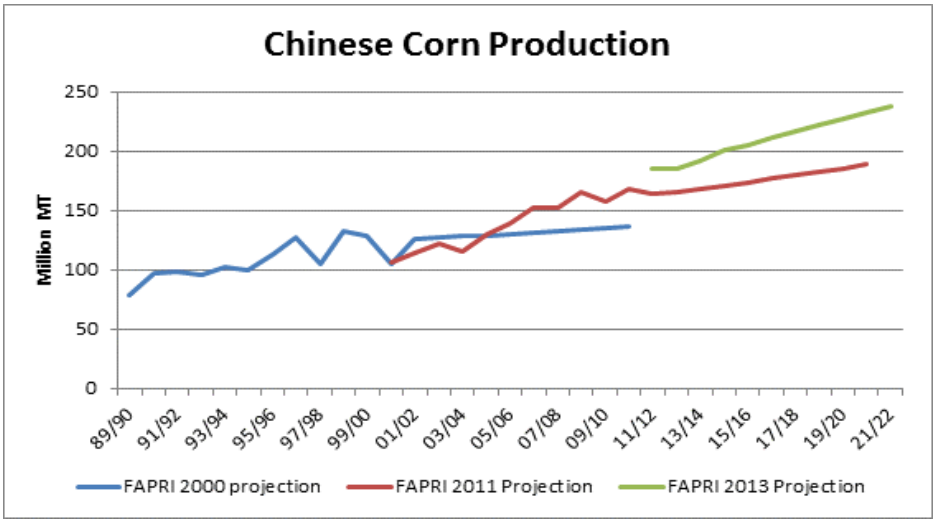


Chinese paths on domestic production

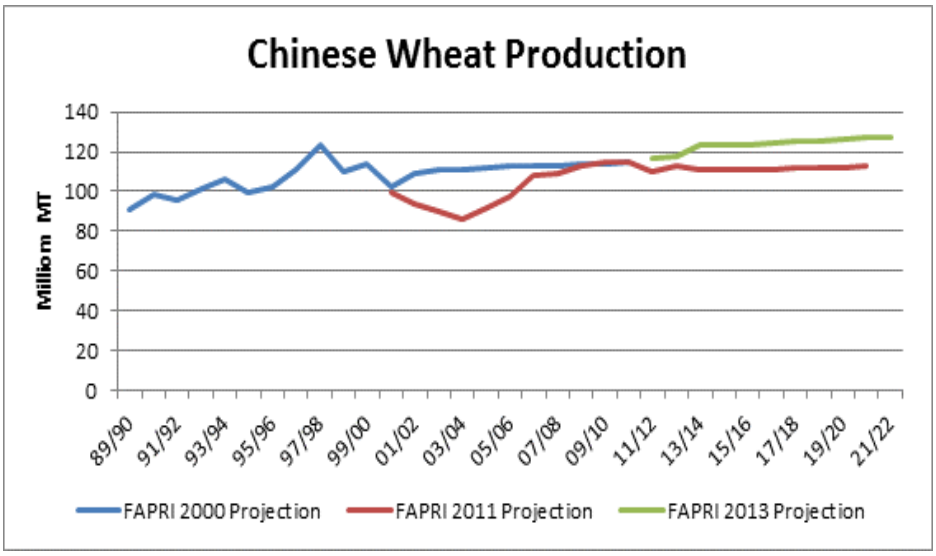
In 2001, it was expected that domestic Chinese corn production would grow slowly for the next decade. Those expectations were met for the first part of the decade, but domestic production increased more rapidly than expected in the last half of the past decade. With continued higher global grain prices, expectations for domestic Chinese corn production have increased even more in the latest projections. Whether implicitly or explicitly stated, China has clearly prioritized corn production relative to soybean production.



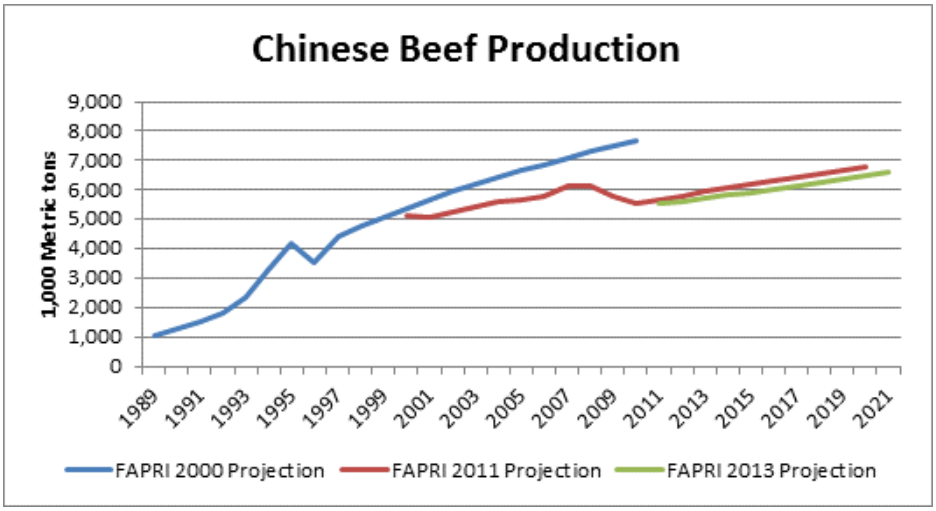
Chinese soybean production has declined relative to expectations in 2001. The decline in soybean production relative to corn production accelerated as global grain prices increased. This change in production priorities makes sense since the freight charge to ship a ton of corn from the western hemisphere is essentially the same as it is for a ton of soybeans. Thus, as a percentage of the cost of the delivered product, shipping soybeans adds less per ton to the cost of the product than does shipping corn. The Chinese buyers also have more competitive options for sourcing soybeans and soy products in world markets than they do for corn.



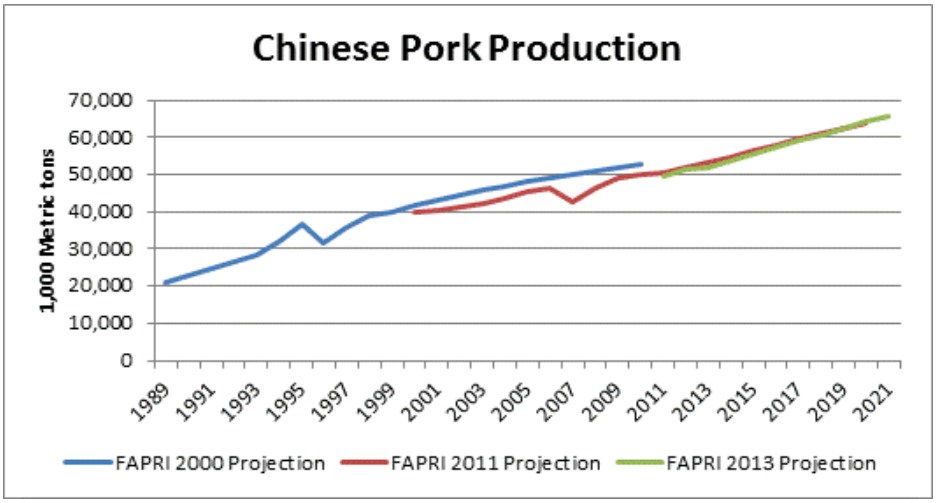
Chinese wheat production has followed expectations better than either corn or soybeans. What variation has been observed appears to be more weather induced than specific changes to planned plantings. The Chinese have multiple, competitive options for wheat imports including the United States, Australia, Europe, the Black Sea Region and South America, and it is likely that changes in trade policy have had the least impact on Chinese domestic production decisions for wheat acreage.



Chinese domestic beef production has declined from expectations of 2001, and lowered expectations for the next decade are manifest in the most recent projections. Given higher feed costs and the potential for increased imports from countries such as Australia and Brazil, it is unlikely that Chinese domestic beef production will displace imports.

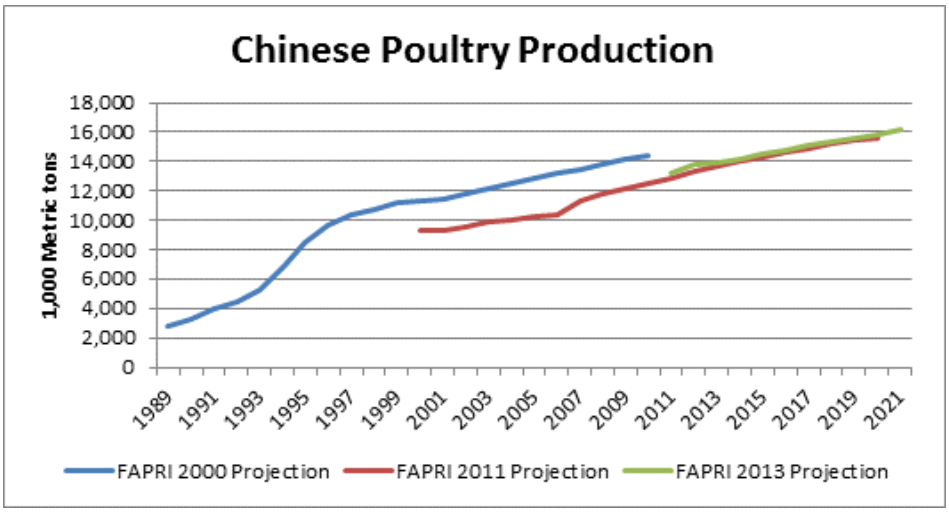


According to official Chinese government data, Chinese pork production has performed nearly as expected for the past decade. Production continues to grow at approximately 2.5 percent annually. This rate of growth reflects little change in hog inventory numbers and mostly reflects productivity increases being realized in Chinese pork production as they move from primitive and backyard production to more modern, commercial production facilities. Growth in Chinese domestic pork production does not appear to be the primary inhibiting factor for importation of pork products. During this period, pork exports from the U.S. to China and Taiwan have increased substantially. Non-tariff trade barriers are likely to be more trade inhibiting than domestic Chinese production.



Domestic Chinese poultry production during the time period of 2001-2010 underperformed relative to 2001 projections. The growth trend that was expected a decade ago was not wrong, it was just starting

from a higher level than was actually occurring. Chinese poultry production is growing about 3.5 percent annually and that trend is expected to continue for the next decade.



Chinese Market Access Barriers to Agricultural Trade

The second set of questions that I was asked to address concerns the most serious market access barriers in China for agricultural exporters in Iowa. For Iowa producers, the most serious barriers to exports of agricultural goods from Iowa are nontariff measures. Nontariff measures (NTMs) include all "government measures other than ordinary tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both." Many laws and regulations have the potential to restrict international trade. Those that affect trade are considered to be barriers if there is a protectionist intent. Without seeking to identify that intent, this segment focuses on measures identified by the U.S. International Trade Commissions (USITC) as having had an economic effect on existing or potential U.S. agricultural exports to China.

Economic simulations indicate that China's NTMs may have a greater impact on U.S. agricultural exports than do China's applied tariffs. In the absence of Chinese NTMs, it is estimated that total U.S. agricultural exports to China would have been $2.6–$3.1 billion higher in 2009. Economic simulations were conducted on 12 U.S. agricultural product sectors for which (1) Chinese import prices were higher than world prices and (2) USITC research indicated that specific NTMs were impeding U.S. agricultural exports.

Unlike the tariff simulation, this simulation estimates the impacts of the removal of all known and unknown NTMs specific to these products, not the elimination of a specific policy or set of policies. The sectors included in this simulation were wheat, several horticultural products (potatoes, apples, and stone fruits), cotton, and meat products (beef, pork, and poultry). The products for which the model indicated the greatest change in trade flows (and therefore considered to be most affected by Chinese NTMs) were wheat, cotton, and pork. Some of China's NTMs keep certain U.S. products out of the Chinese market completely. Others increase costs for traders, or increase uncertainty and therefore risk. Some of

China's NTMs affect virtually all agricultural products, and can make U.S. products uncompetitive or dissuade U.S. exporters from entering the Chinese market. The value-added tax (VAT) exemption for Chinese primary agricultural producers, for instance, impacts all agricultural products by conferring a substantial cost advantage on domestically produced product. Other NTMs are specific to a particular product. The following list summarizes the principal NTMs faced by U.S. agricultural products entering the Chinese market.

Reported Chinese NTMs affecting imports of U.S. agricultural products

H1N1 influenza restriction: U.S. pork has been denied access due to fears related to "swine flu." The World Organisation for Animal Health (OIE) has reported that there is no risk of influenza infection from consuming pork. While U.S. pork exports are flowing to China and Taiwan, there are intermittent disruptions to those flows that negatively affect the ability of U.S. exports to reach their full potential.

Ractopamine ban: China has a zero tolerance for ractapamine, a commonly used feed additive, in pork that has been widely accepted in the domestic U.S. market. The Chinese ban limits opportunities for farmers producing pork for other markets that could otherwise profitably export some cuts to China. This ban in particularly negative to U.S. pork exports to China since China often imports pork products and cuts that have significantly more value in the China than they do in the U.S. market due to differing tastes and preferences.

Zero tolerance for pathogens: Zero tolerance is unsupported by a scientific risk assessment. This policy can serve to limit imports of meat and poultry.

Bovine spongiform encephalopathy (BSE) restrictions: China stopped imports of U.S. beef following the discovery of BSE in the U.S. cattle herd in December 2003. This is contrary to OIE guidelines and fails to recognize the safety and surveillance protocols that are in place for U.S. beef production. Also related to BSE, China prohibits use of protein-free tallow ingredients derived from ruminants and imported ingredients in U.S. pet food exported to China, including ingredients that are themselves approved for import in China.

Low pathogenic avian influenza (LPAI) restrictions: China bans imports of poultry products from certain U.S. states in which LPAI has been detected. This is contrary to OIE guidelines. Restrictions on poultry imports not only affect the U.S. poultry markets, but also have negative effects on the other U.S. meat markets, such as beef and pork.

Biotechnology regulations: All products containing genetically modified organisms (GMOs) must be labeled, the registration process cannot begin in China until registration is completed in the exporting country, and registrations must be renewed every three years. This process results in needless delays in the adoption of new technologies by U.S. farmers and reduces the full set of production that could be eligible for export to China.

VAT policies: VAT policies provide a cost advantage to Chinese domestic agricultural producers and processers that purchase domestic agricultural products rather than imports.

Labeling requirements: Some products reportedly must be labeled entirely in Chinese or must have non-Chinese characters on their labels covered with a sticker.

Customs measures: Some imports are subject to reference pricing, classification is not consistent, and clearance may be delayed.

Multiplicity and duplication: Multiple ministries and agencies are involved in licensing, certification, and inspection and do not share information among themselves.

Provincial and local variation: Regulations, standards, and enforcement can vary by location.
Tariff-rate quota (TRQ) administration: Large allocations are reserved for state trading enterprises; only small allocations are available for private traders, and there is little reallocation.

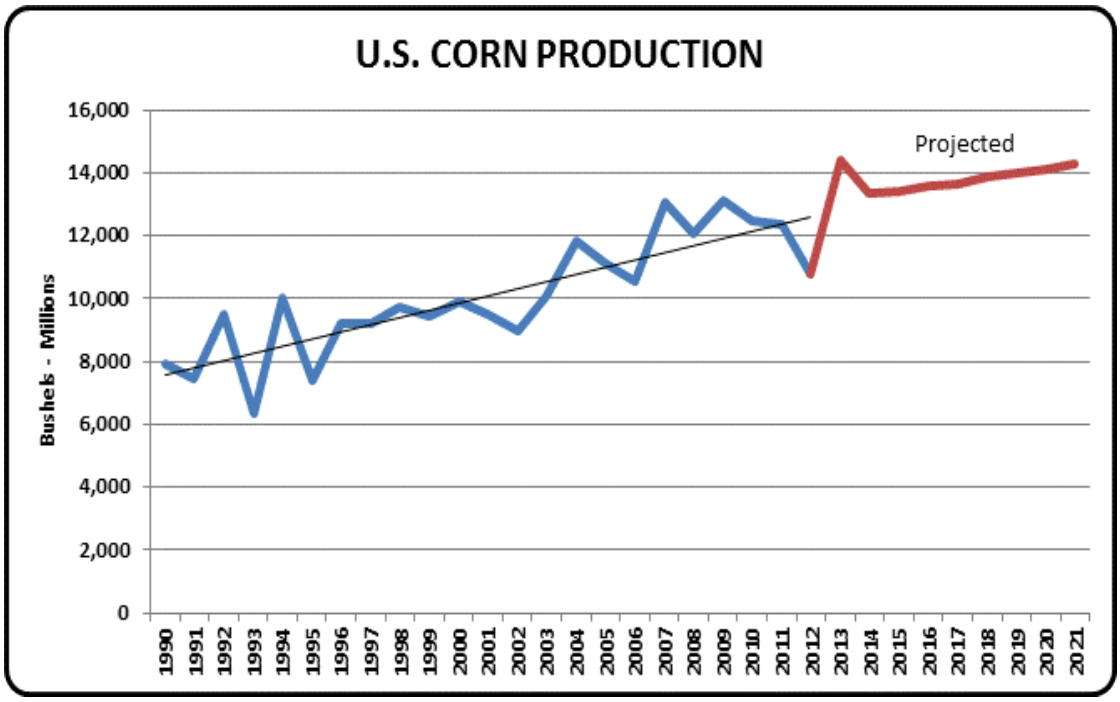
Lack of transparency: Many Chinese ministries and regulatory agencies fail to follow agreed-upon comment and notification procedures. TRQ allocations and the identity of import license holders are not made public.

Source: Compiled by U.S. International Trade Commission staff.
While all non-tariff barriers to trade are problematic, the ones that affect Iowa farmers the most are the ones being used to restrict imports of pork, beef, and poultry and their biotechnology regulations that hinder corn imports and delay technology adoption by U.S. farmers.

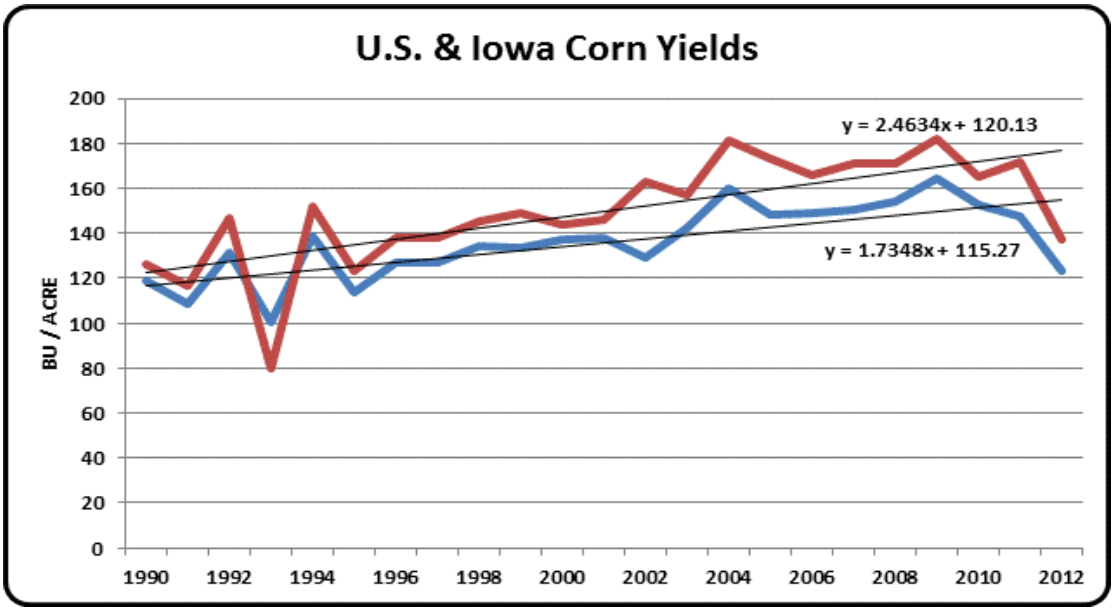
Capacity of U.S. and Iowa Agriculture to Satisfy Future Chinese Demand

The third set of questions concern the capability of the United States to increase corn, soybean and meat production in order to meet future Chinese demand. Taking the questions a step further, does China's demand for grains to feed its livestock creates conflicts with the interests of meat producers in Iowa.

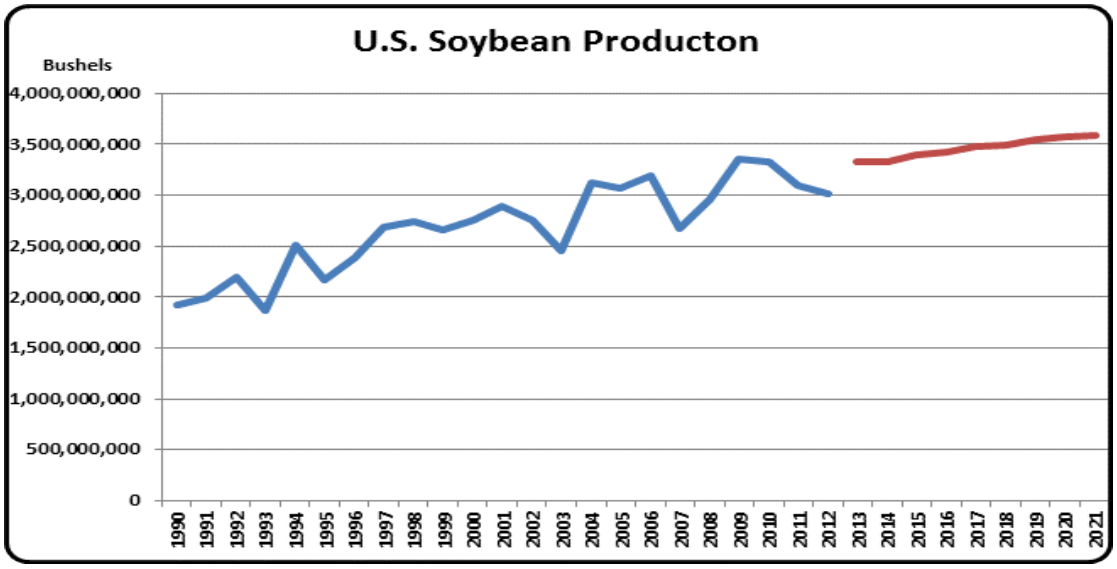
U.S. corn production is increasing at the rate of approximately 225 million bushels per year. Production in 2012 was diminished due to wide-spread drought across the major corn growing areas of the U.S., but early expectations for the 2013 corn crop indicate the potential for record corn production as planted acreage is expected to be greater than 97 million acres and national trendline yields are now approaching 163 bushels per acre. There are two primary factors contributing to the increasing trend in corn production. One is an increase in planted acreage as farmers return land that has expired its enrollment in the Conservation Reserve Program (CRP) to crop production. Much of the expired CRP land is being used for corn and soybean production. Additionally, in several southern U.S. states, there has been a shift in crop acreage from cotton and pasture to corn production. With a return to more normal weather and yield expectations, the U.S. corn crop could exceed 14 billion bushels in 2013 and is quite likely to exceed 14 billion bushels on a regular basis in the coming years.



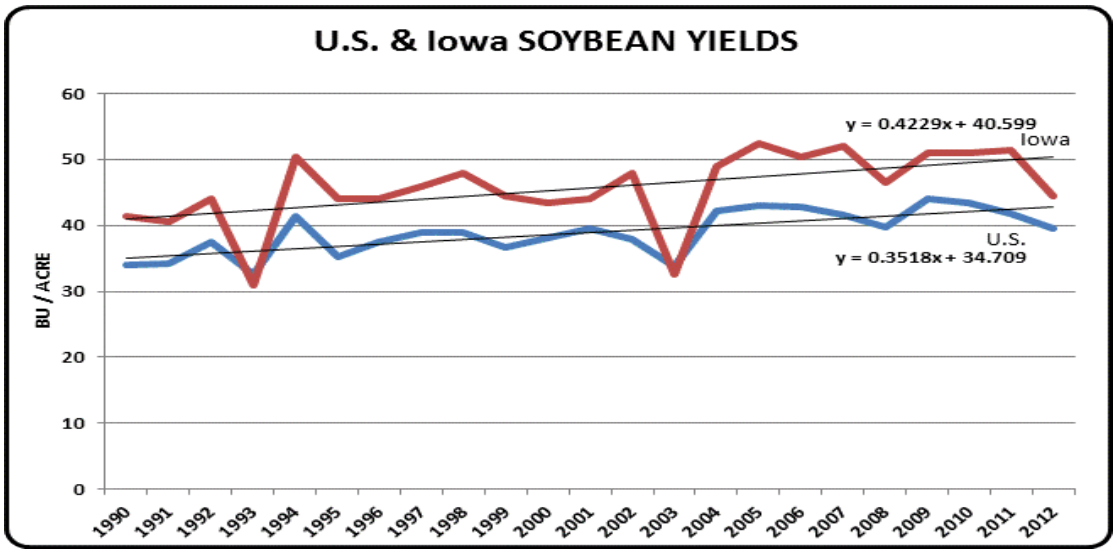
A second factor contributing to increased corn production is increasing yields. The 20-year national corn yield trend is increasing at 1.74 bushels per acre per year. The 20-year corn yield trend in Iowa is increasing at 2.46 bushels per acre per year. Multiple factors are contributing to these increased yields, not the least of which is improvement in genetics, both through traditional breeding and selection and the incorporation of new traits through biotechnology. Additional factors contributing to increased corn yields are: improved control of weeds, insects and diseases; improved fertility management protocols; and adoption of precision agriculture mechanical and sensory technologies that allow for more precise timing and placement of nutrients, chemicals and biologics.



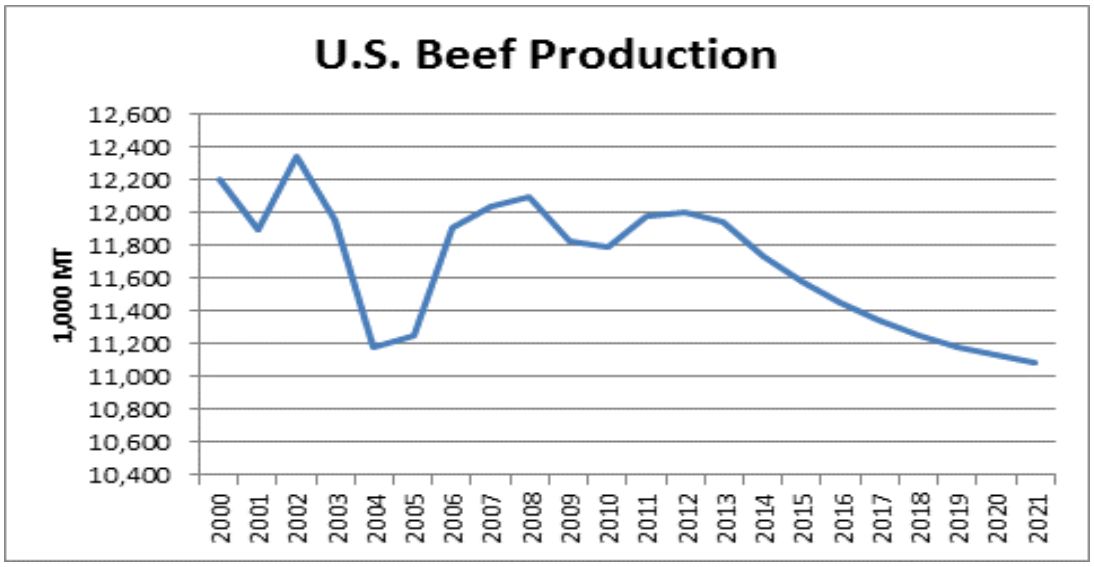
U.S. soybean production is expanding, exceeding 3 billion bushels in six of the past eight years. Over the past 20 years, the trendline increase for soybeans production is 57 million bushels per year. National planted acreage has grown to more than 77 million acres. Significant expansion has occurred in the western and northern portions of the traditional soybean growing areas. Looking forward, U.S. soybean production is expected to expand to more than 3.5 billion bushels on an annual basis. This expanded production should be sufficient to meet exports demands for soybeans and soybean products to China without impairing the availability of soybean products for U.S. consumers and livestock producers.



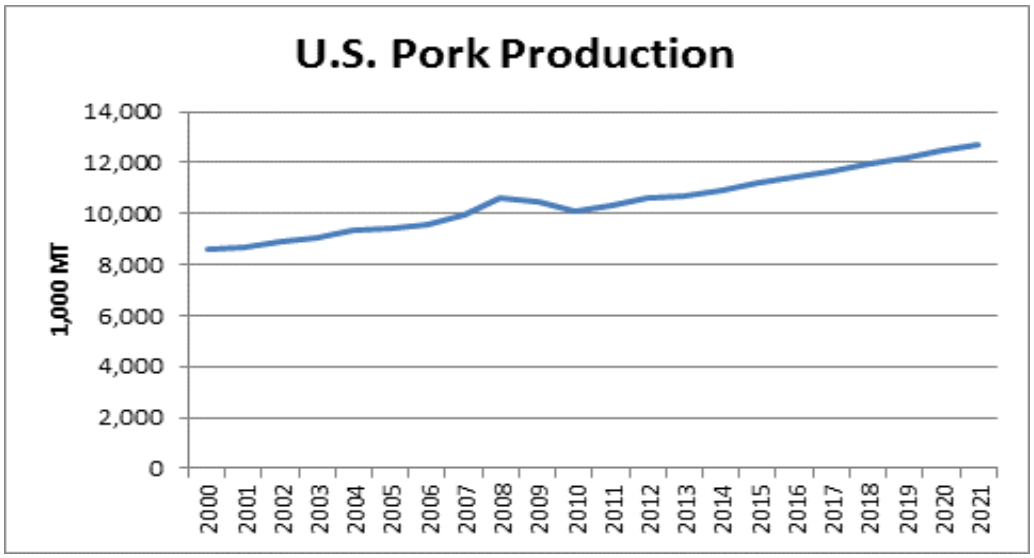
U.S. soybean yields over the past 20 years have increased at the annual rate of 0.35 bushels per acre. Soybean yields in Iowa are increasing a bit faster at 0.42 bushels per acre per year. The combination of expanded acreage and increasing yields is likely to continue into the future, assuming the price of soybeans remains at levels that will support production in the new areas of expansion, which are often associated with higher production expenses.



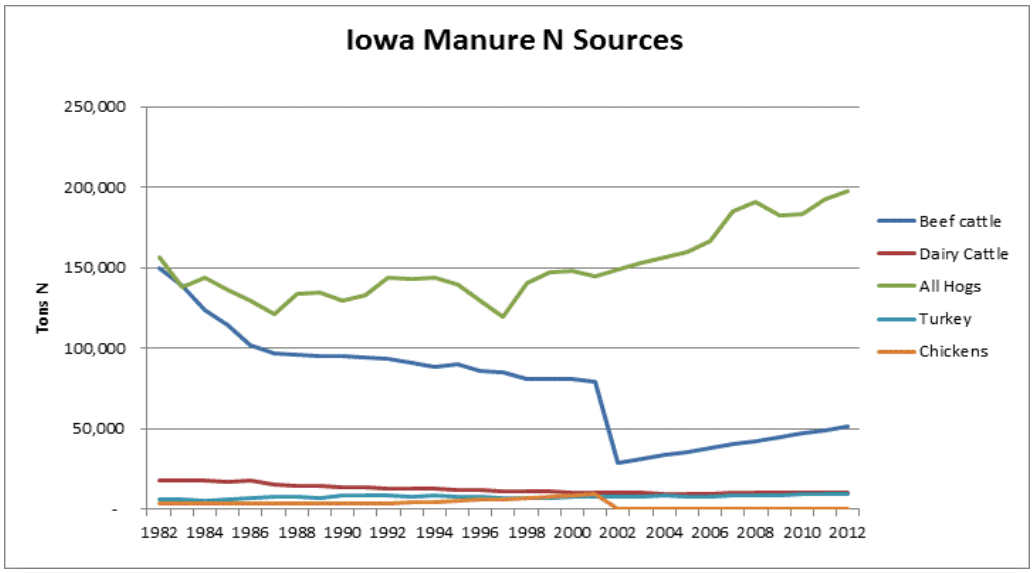
U.S. beef production is expected to decline for most of the next decade. There are two major factors affecting beef production in the U.S. First, is the lingering effects of the drought that started in 2010 and 2011 in Texas and Oklahoma and then intensified in 2012 in the Plains and Midwestern states. This drought has resulted in a substantial reduction in the U.S. cow herd. The second factor impacting beef production has been persistently high grain prices for most of the past 6 years. Higher grain prices have significantly increased the costs to finish cattle on grain and has resulted in huge losses for cattle feeders. In response to these huge losses, cattle feeders have reduced their bid prices for feeder cattle, which has diminished the incentives for U.S. cow-calf producers to rebuild the cow herd.



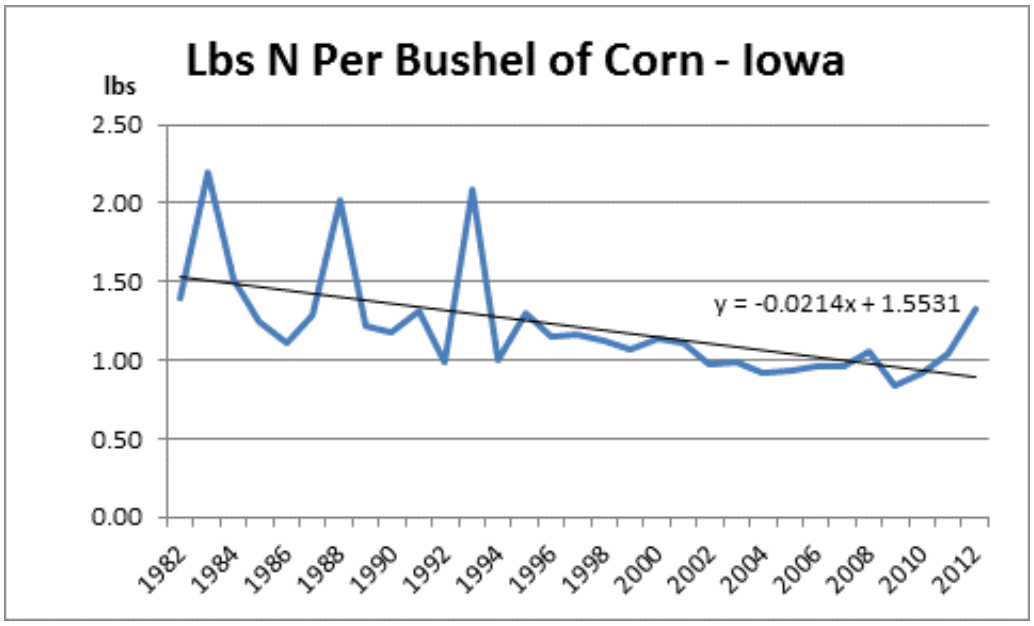
U.S. pork production has been increasing at an annual rate of two to three percent for much of the past decade. A similar uptrend in pork production is expected to continue for the next decade. Due in part to a shorter production cycle, pork producers have adjusted to higher grain prices more rapidly than have beef producers, although the strong increases in grain prices in 2008 did result in a two year contraction in the industry. U.S. pork producers continue to see productivity gains from their production inputs, with pork-per sow-per-year continuing to increase at a rate of nearly 2 percent annually. Also, the adoption of feed technologies such as ractopamine has improved the production of lean meat from the consumed feed, and has allowed pork producers to improve the feed efficiency ratio which serves to counteract some of the effects of increased grain prices. If the current Chinese ban on such feed additives continues, it could negatively impact the ability of U.S. producers to continue on the pathway of higher production trends unless feed costs subside.


U.S. Pork Production
1,000 MT
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021

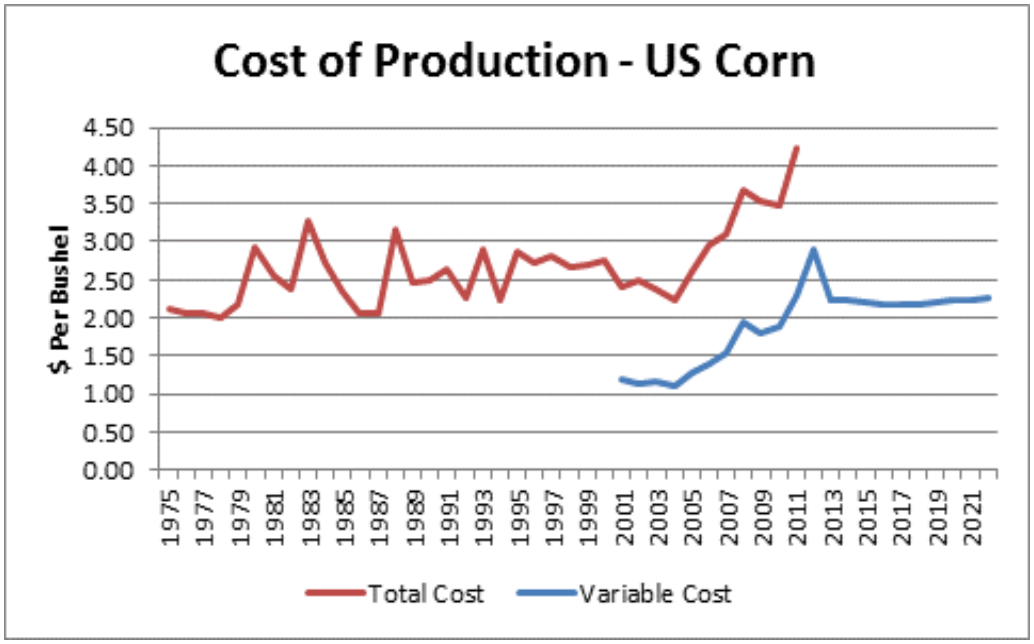
From an environmental perspective, there is significant room for Iowa to increase pork production. Currently, Iowa farmers are applying about 1 million tons of nitrogen from commercial fertilizers on Iowa farm land and 250,000 tons of nitrogen from manure. About 70 percent of the manure-based nitrogen is from hog production. If all of the commercial nitrogen for corn production were to be replaced by nitrogen from hog manure, the Iowa hog herd would need to be nearly 5 times as large as it currently is.



Corn production in Iowa uses nitrogen fertilizer more efficiently than it did in past decades. Thirty years ago, farmers applied about 1.55 pounds of nitrogen for each bushel of corn production; by 2009, that figure had dropped to 0.84 pound per bushel. The 30-year trend has nitrogen per bushel of corn dropping by 0.02 pound per bushel per year. Four times in the past 30 years there has been a weather event severe enough to cause a temporary deviation from the trend for improved nitrogen efficiency.



In 2012, as a severe drought reduced corn production in Iowa, the amount of nitrogen applied per bushel increased to 1.35 pounds of nitrogen per bushel. But under similar disruptive weather conditions 20 and 30 years ago, the nitrogen per bushel of corn produced spiked to more than 2 pounds per bushel when yield was severely reduced. This gives further evidence that Iowa corn production continues to see progress in its utilization of nutrients and can be produced in more environmentally sustainably ways even under adverse conditions.



The cost of producing corn in the U.S. is rising. Increased energy costs are being reflected in higher costs for fuel and fertilizer. Other costs, including seed, maintenance costs and other items of production are also rising. Likewise, fixed costs for producing corn are rising with land costs reaching an all-time high in 2012. It is anticipated that the total cost of producing corn will plateau between $3.50 and $4.50 per bushel if weather improves and yields return to trendline levels. The variable cost of producing corn is expected to stabilize near $2.25 per bushel. This should keep U.S. corn very competitive in world markets.

In conclusion, China is a major buyer of agricultural goods produced in Iowa. While use of non-tariff barriers to trade continues to present problems for particular products, the overall trend of agricultural exports from the U.S. to China is very positive. For most of the commodities of greatest importance to Iowa farmers, access to the Chinese market has met or exceeded the 2001 expectations when China became a member of the WTO. Prospects for continued trade with China are good and Iowa farmers look forward to fulfilling China's future needs by building upon the base of trade we currently have.

Thank you very much for the opportunity to present this information at this hearing.

PANEL III QUESTION AND ANSWER

HEARING CO-CHAIR WESSEL: Thank you, each, for your testimony.

Commissioner Slane.

HEARING CO-CHAIR SLANE: Ms. Nigh, you represent six million farmers. What are their issues? What is driving you or driving them in the international arena?

MS. NIGH: For the most part, U.S. agriculture on the vast majority of products is one of the most competitive producers of products in the world. We're the low-cost producer. We want to make sure, however, that the markets that we're trying to access are allowing entry based on scientific basis and that there aren't artificial barriers being put in place. That's where we tend to focus our energies in cases where things seem to be a little bit out of line with what common science or trade standards would suggest they should be.

HEARING CO-CHAIR SLANE: I was trying to break down the non-tariff barriers.

MS. NIGH: Non-tariff barriers and SPS, TBT and SPS issues have become the more predominant form of trade discrimination over the last decade or two. But certainly that's not unique to U.S. agriculture. I would say that all agricultural producers around the world are facing similar standards to try to meet. But certainly those barriers have replaced tariffs and tariff-rate quotas and things along that line, some more traditional means of market discrimination.

HEARING CO-CHAIR SLANE: Thank you.

HEARING CO-CHAIR WESSEL: Several years ago, I saw a study about the strength of American farmers and their moral strength, and clearly it is a way of life that is admired by many. Also, farmers tend to be very self-sufficient. You know they worry about the weather or some other things, but they don't generally blame their problems on other people.

You've just stated a number of problems, but those problems are being dealt with as part of S&ED, JCCT, and a number of other venues. You're being very patient on what are a lot of market access issues, lack of transparency, TBT, SPS, other problems that limit the ability for you to get competitive products into the Chinese market.

Is this a process we can continue? Are you satisfied with what the government is doing? Understanding that problems aren't solved overnight, but I don't detect a lot of frustration in what you're saying. And our job is to analyze and then make recommendations to Congress. Is there anything we should be recommending or is it simply more of the same?

MS. NIGH: From our perspective, the best way to handle trade issues that we face with China and any other market is through continued bilateral and multilateral engagement. I think that you will hear from folks on the next panel, and you've heard from others that have represented specific industry groups within the agricultural sector. They make a very concentrated effort of doing regular trips to our trading partners so that they can better understand what issues their

importing partners may have.

And we also make a large effort to bring foreign buyers and foreign governments to the United States so they can also understand our systems from this side. Of course, we'd always like things to go faster.

I think that in general, certainly frustrations exist. Although, I think that a lot of our trading partners would also say the same things about us, and there are certainly lots of examples over the last several years where bilateral engagement, and even in our trade relationship with China. Ask the U.S. pear industry how successful their 20-year discussion with China has served them in the last year. They were able to open up bilateral trade of pears from China to the U.S. and vice versa. That's certainly a win.

Decreased tariffs on U.S. almonds has been incredibly important. So certainly we're frustrated. We get frustrated. We all get frustrated, but bilateral engagement and having some patience is usually the best way to go forward.

HEARING CO-CHAIR WESSEL: I don't mean my question as a criticism. Understand that.

MS. NIGH: Oh, I know.

HEARING CO-CHAIR WESSEL: Are there things we could be doing better than we're doing? Or, is it just more engagement, more activism? Any of the other panelists as well?

MS. NIGH: I think we need to be fairly specific on our requests. Rather than coming in with a hundred issues that we have, let's be a bit more specific about exactly what it is we're looking for.

So, for example, non-technical barriers to trade. China has a tendency to have a lot of different standards. They have national standards. They have state standards. They even have local standards. But there isn't a national clearinghouse for all those standards so that an exporter can actively go online and check them out. So a national clearinghouse would be really helpful, and that's a fairly--

HEARING CO-CHAIR WESSEL: Have you asked for that?

MS. NIGH: I'm sorry?

HEARING CO-CHAIR WESSEL: Has the industry, have you asked for that?

MS. NIGH: There have been requests, yes. Tariff-quota administration continues to be a fairly nontransparent practice, and there could be some benefits to having more transparency within the systems.

But being fairly specific about what it is we ask for, we give some concrete recommendations in our written testimony.

HEARING CO-CHAIR WESSEL: Great.

Commissioner Shea.

VICE CHAIRMAN SHEA: Thank you all for being here. It was nice talking to Dr. Carter last night at dinner. We not only look at trade. We look at the issue of foreign direct investment, FDI, and we haven't really talked about that. But we have focused as a Commission on Chinese foreign direct investment and the

prospect that there could be considerable Chinese FDI into the United States. It's not that significant now, but there could be considerable amount going forward.

And we've also focused on the unique issue posed by investment in the United States by state-owned enterprises, large state-owned enterprises, and what those heavily subsidized state-owned enterprises might mean for competition with domestic entities here in the United States.

In China there are restrictions on what we can purchase. They have prohibited industries, restricted industries, encouraged industries. So, a U.S. company can't buy a piece of civil aviation, mining, or oil and gas. If you want to do automobile manufacturing, you got to team up with a joint venture.

So my question to you is, if you have some thoughts on this, have you seen any prospect of Chinese foreign direct investment of a significant amount in the agriculture sector in the United States? If so, or if not, what thoughts would you have about that, what concerns would you consider, and is there significant U.S. investment in China in the agriculture sector? Or, have U.S. and Western investors been frustrated to some degree in that sector?

DR. CARTER: I can try and answer that question. There is some investment by China in U.S. agriculture, but I think it's fairly limited. I don't see it as an important issue in terms of their investment here.

Going the other direction, there's a tremendous opportunity. Yes, there have been frustrations. A lot of it is joint venture, but China's agriculture does have to modernize and the farms do have to get larger. Somebody said there's still 200 million farmers in China. That number needs to go way down and will end up with a structure of agriculture that looks more like Europe in 20 years.

And that's going to require a massive technological change investment, and there's tremendous opportunity for U.S. companies to participate in that to help the Chinese improve the productivity of their agriculture, to help them improve food safety, et cetera. It's just an open-ended opportunity from my perspective, more on the technology side.

VICE CHAIRMAN SHEA: So why hasn't that opportunity been realized to date? DR. CARTER: It's starting. But I don't know the answer to that. Other countries are interested, too, but I suspect part of it is the frustrations that people have run into, and part of it is just trying to get their arms around what opportunities do exist there.

But I think now it's clear that there is going to be land reform and that China is going to move to larger farms. You know, it's fairly recent that they're part of the global trading system in food and agriculture. Ten years ago, agriculture trade was very, very small. It was pretty much just a continental economy in agriculture. So it hasn't been that many years, and now we realize, okay, they're part of the global community so it's time to step in.

VICE CHAIRMAN SHEA: Thank you.

Dr. Miller, have you seen any interest by Chinese investors to come into Iowa and to make significant acquisitions?

MR. MILLER: In agricultural production, no. And, again, partly it's

we have barriers also. Iowa has a corporate land law that's been talked about earlier that ends up as a structural barrier. China has been making investment in some other states. And I don't have the numbers right in front of me, but I believe some of that has been in Texas, some in Illinois. There are other states that have less restrictions, if you will, relative to land acquisition, those types of things.

When I look at Chinese agriculture, particularly at the production agriculture side, the number one advancement to be made is probably land reform. It's a capacity issue. It's a structural issue. The value of a 24-row Kinze planter on a hectare, 1.2 hectare plot, is pretty low. You can't turn it around.

In fact, I remember being on about a 700 cow dairy farm outside of Beijing, and as we visited with a farmer there, he was working with 500 peasant farmers to put together about 700 acres of land, and he had very modern dairy equipment. His milking equipment was as modern as anything you would see on an Iowa farm. He fed everything by hand. He says he will buy augers when it's cheaper than labor.

One of our people who was with us on the trade mission had a picture of his 24-row corn planter, and he asked where he could get one of those? But he said he has a problem in that the land structure still was not amenable to that type of equipment, but the productivity change that comes from precise seed placement could add 20 percent to Chinese yields almost overnight. But the utilization of our technology is incompatible with their land structures in much of China. In the far northeastern parts, they're beginning to adopt those technologies where they've done some land reforms and have different structures.

So part of it is barriers. There are barriers of culture and time.

VICE CHAIRMAN SHEA: Okay. Thank you.

HEARING CO-CHAIR WESSEL: Commissioner Bartholomew.

COMMISSIONER BARTHOLOMEW: Thanks very much and thank you to all of our witnesses.

Dr. Carter, as somebody who's been connected to California for much of my professional life, I wanted to note you're the Director of the Giannini Foundation of Agricultural Economics, and for the Iowa people here who don't recognize the importance of the Giannini family, they were the founders of Bank of America, major contributors. Major contributors to California's economic growth. And I was also really pleased to see that you noted the pistachios and almonds, which I think are both very
important crops.

That said, the question I have, you make an interesting statement in here about China's substantial increase in fruit and vegetable production is a major factor behind its agricultural export growth.

And we know that one of the things that China has done for its economy is that it's an export-driven economy for the most part. That's how they have been building their economy. I'm finding myself wondering how much guidance China's farm sector gets from the central government or from its provincial governments about what they should be planting? Has there been a

conscious decision to move to an increase in fruit and vegetable production?

DR. CARTER: In terms of guidance in the current environment there, it's more done through policy. As we heard, China decided to let soybeans go, and that was probably a wise decision given the millions of acres of land that it freed up. We also heard they're not letting cotton go and they're doing that through prices more than anything else.

COMMISSIONER BARTHOLOMEW: Meaning they're subsidized?

DR. CARTER: For example, in cotton, they offer a price at which they will buy the crop. So it's more through policy than telling individual farmers you must grow X, Y and Z the way it used to be done.

But still China has, you know, it's part of their official policy to continue to boost grain production so that they're still very much focused on grain, but it's not the command and control economy that it used to be. So why have fruit and vegetables increased? It's because, as we heard from Fred Gale, the farmers have a lot more freedom today to do what they are best at, and as a result, more resources have been devoted to fruit and vegetable production because they're higher profit.

COMMISSIONER BARTHOLOMEW: So if I'm a small farmer in rural China, how do I know that? I mean how do I know, as I'm trying to decide what I'm going to plant, that I can export fruit and--

DR. CARTER: You check your cell phone.

COMMISSIONER BARTHOLOMEW: Through cell phone technology now?

DR. CARTER: Check your cell phone. Yes.

COMMISSIONER BARTHOLOMEW: So I guess I still want to dig in a little bit more to the policy choices that the government is making to encourage things. They're doing price, essentially price supports.

DR. CARTER: In some markets, yeah.

COMMISSIONER BARTHOLOMEW: And price supports that have an impact on what is being exported?

DR. CARTER: Or imported.

COMMISSIONER BARTHOLOMEW: Okay.

DR. CARTER: So, you know, as we heard, in soybeans, they basically made a decision we will import soybeans. We're not going to support the domestic price of soybeans.

COMMISSIONER BARTHOLOMEW: Right.

DR. CARTER: And if they reduce domestic support to cotton, they would likely be importing more cotton today than what they currently are.

COMMISSIONER BARTHOLOMEW: Right.

DR. CARTER: And so on.

COMMISSIONER BARTHOLOMEW: I know the impact that China's applesauce sales, for example, have had on our domestic applesauce industry.

DR. CARTER: Right.

COMMISSIONER BARTHOLOMEW: And some of our apple growers,

and there's some unfair competition things that go on in some of these sectors. Has the Chinese government been involved in encouraging the planting of apples, for example? DR. CARTER: Well, the Chinese government would like to see its farmers do better. Someone mentioned earlier this large income gap between the rural and urban community. That's a huge problem in China. If you go to the farms, they're not that much different than they were 30 years ago. Those people are still very poor. They can't afford to send their daughters to university.

So the government would like to see those rural poor areas, especially in the west, improve their livelihoods. So, yes, they do provide infrastructure, like we do in this country, and they would like to export more apple juice and more garlic. But they do run into these trade barriers in this country and other countries, and those are products that are labor intensive so that's where their comparative advantage lies. It's with horticultural products.

COMMISSIONER BARTHOLOMEW: Okay. Shifting gears a little bit, I note, Ms. Nigh, that you were talking about bilateral patience. I think that that was one of the phrases you used.

Mr. Miller, I'd like you to take off your Iowa Farm representative hat but talk as an Iowa farmer, if you were a farmer, can you tolerate bilateral patience? Now, I know you've chosen the crops particularly that are doing it, but how much leeway do I have to wait while some of these tricky issues are being worked out?

MR. MILLER: It depends how they affect you, and I don't say that flippantly. In terms of if I'm an Iowa soybean farmer, where's the problem?

COMMISSIONER BARTHOLOMEW: Right.

MR. MILLER: I mean it's a success story that is probably unrivaled in terms of trade access to anyplace in terms of the growth and the rapidity and what it's done. When we look at what has happened from an Iowa farmer's perspective, I realize these impacts are not uniformly distributed across the country.

COMMISSIONER BARTHOLOMEW: Right.

MR. MILLER: There have been probably three big impacts affecting Iowa. Number one is biofuels. Clearly, the development of the ethanol, biodiesel industry, et cetera, has had an effect in Iowa. Second is the rise of incomes and food consumption upgrading in India and China. 2.5 billion people, 40 percent of the world's population are upgrading their food, the base of which is they want to upgrade to things that Iowa grows, the feed products that go into meat, et cetera, those types of things.

The resulting impact is we've moved from $1.50 corn, $2corn, $7 corn, to $5 corn. Pick the price. But the reality is that gets reflected in land values and other things. The combination of China, biofuels, et cetera, has added $125 billion of wealth to Iowa landowners in five years. That is worth 250 years of farm bill support.

Now let's put things in perspective. Are we unhappy about China? No. I mean that doesn't mean we're happy with everything they do. If I'm an Iowa hog

producer, I want the ractopamine issue solved. If I'm an Iowa corn or soybean farmer, I want asynchronous approvals of biotechnology solved because it affects our ability to in the future continue to be competitive and take advantage of all the technological advances that are almost all uniquely developed in this country.

Biotechnology is not coming from Brazil to us. It comes from us to them. We want to be the first adopters, but we need to be able to adopt those things and have our large markets simultaneously accept them. I can't grow a product if a third of my market won't accept it. So those types of issues I don't have a lot of--I don't have patience for. We're all impatient in that regard, but I also need to look back and say exactly where did it come from, and, yeah, we've had a $15.5 billion increase in soybean sales just to China, those types of things.

So there's impatience, but yet there's recognition of just how far we have come. There is probably no other country that we've ever traded with from an Iowa perspective where the success of their accession into WTO has opened up market access for Iowa-based products. It's unrivaled, and I think we need to understand that and not create things that have been talked about that can create backlashes that the poultry industry has had.

Is our poultry industry happy with everything that's happened? No. But from an overall perspective, inside Iowa, and I would suggest that it extends out to Nebraska, Illinois, Indiana, probably Minnesota, the Midwest, we're pretty darn happy with what's been happening. It's a different story on the coast. And we fully realize it's a different story on the coast.

COMMISSIONER BARTHOLOMEW: If I can go off topic just a little bit. As an Iowa farmer, are you worried about the impact of climate change on the ability of farmers here to continue to produce bumper crops of soybean and corn?

MR. MILLER: Climate change is a continuum. It has always happened and it always will happen. We adapt. I worry much more about weather than I worry about climate. And the difference is, 2012 was the hottest, driest summer since 1934 that we've had in Iowa. April of 2013 is the coldest wettest April we've had in about the same time period.

COMMISSIONER BARTHOLOMEW: You're lucky you're not in Minnesota.

MR. MILLER: Yes. Some of my kids live in Minneapolis so I'm glad I'm not there. So those are weather impacts. Weather is what I worry about on a day-to-day timeframe. The scientists need to worry about climate change because climate change impacts are things that we develop technology and adaptive methodologies for over 20, 30, 50 year time periods.

If we were going to continually be hot and dry in Iowa, then we've got to start experimenting with a lot more irrigation and all sorts of things. We've got to become like California. But I don't see us necessarily--right now for the last 20 years, we've become warmer and wetter in Iowa, both of which are positives to corn production and soybean production. So in my career as a farmer, if I had listened to all the predictions that climate is going to become hotter and dryer in Iowa, I would have done everything wrong for 30 years because that's not been the

weather that I've experienced in my productive lifespan of farming.

Mine has all been about getting warmer with longer growing seasons and wetter, which is higher precipitation, less drought stress.

COMMISSIONER BARTHOLOMEW: Thank you.

HEARING CO-CHAIR WESSEL: Chairman Reinsch.

CHAIRMAN REINSCH: I want to go back in a slightly different direction, although that was really interesting. I guess this is for Dr. Carter because I want to focus less on Iowa products that Mr. Miller, I think, very eloquently described, and look at the products where the Chinese have significant exports, which include some of the fruits and nuts and other things that you described, which as I said, are probably not an Iowa competitor.

My question is if you look at the things that we heard about this morning from the Chinese perspective, limitations on arable land, the water problems they've got, some of the weather problems that they've got, as well as the cost of the policies that they're pursuing, is an export promotion policy for these products sustainable over the long term?

DR. CARTER: I wouldn't say so much export promotion, but from my perspective, I think China will continue to move in the direction of its comparative advantage in agricultural production, which happens to be the labor intensive crops, some of which, as you say, are intensive users of water and other resources.

I don't think there is any question that China will push in that direction, and it will mean exports. It will mean exports of higher valued, labor-intensive food products, and do they have a problem today with food quality? Yes. Will that be solved? I'm confident it will. And over time, probably if we're sitting here in 20 years, we'll see China exporting significant amounts of high- valued food products on relatively small farms, not as small as they are today, but they're still going to be small.

They're going to be ten acres or 15 acres. That's where that advantage lies. They have good land. They have good weather. They have water. They have water issues, but when it comes time to solve their water problems, I think the Chinese government will solve the water problems.

CHAIRMAN REINSCH: Well, how? Thank you.

COMMISSIONER BARTHOLOMEW: Sorry. How?

CHAIRMAN REINSCH: How are they going to do that?

DR. CARTER: With money, investment. There's, you know, the northwest is a dry area, one where farm incomes are particularly low. And the central government has that on their radar screen, and they will implement policies to boost production through investment.

CHAIRMAN REINSCH: We've done some work at another time on water resource questions in China, and I think we focused on two. One is the pollution issue, which was discussed this morning, but the other one is simply the availability of the resource, for which I think there's increasing demand, and it at best is unequally spread out around the country, which creates a problem. But there is also the question of, particularly with global warming, to the extent that

you have ice melt and less snow in the mountainous areas of China, which is the source of all these huge rivers, you've got a long-term availability problem that I think may fly in the face of what you're saying.

But rather than beat that particular dead horse, Ms. Nigh, do you have any reaction to any of this? Do you have any thoughts? I don't want to force you, but--

MS. NIGH: No, it's fine. I would add that the average farm size in China at the moment is .6 hectares which is slightly under 1.5 acres. Compare that to the average U.S. farm size, and that lends--it's a fairly easy jump as to why they're pursuing more horticultural products. You know, if you get to a 600 acre corn or soybean farm, you can't do that by hand any longer.

And the sort of equipment that you need to be, to have higher yields, is very expensive. But if your farm size is only, is an acre-and-a-half at the moment, and estimates are for it to be somewhere from ten to 40 acres into the future, you're never going to have the same level of investment. The kind of investment that you need to make for horticulture is significantly different than the kind of investments you need to make to be a large corn producer, a large soybean producer.

So I would--labor availability and farm size and the value of those products that you would raise on those smaller parcels of land very much lend itself to expansion of horticultural products, and then, of course, yes, there are some government sort of programs to try to help perhaps boost some of the prices or lower input costs along that line to make those small producers more cost effective.

But I don't, I'm not sure that there's a direct push to try to export more horticultural products. It's more of a function of the constraints which they're currently facing.

MR. MILLER: If I were a Chinese farmer looking out 20 years, I would assume I'm not going--and I am in a major feed grain, water extensive agricultural area, I would assume that my production devoted to those types of crops will go down over the next 20 years, at least the acreage wise, because of water resource issues, et cetera. How do you get value for the inputs that you have?

And so over time, the competitive pressures, their competitive advantage is labor, not technology. Now I would argue the biggest threat to Chinese domination in horticultural crops actually will be technology. Because if technology makes mechanization cheaper than labor, then their competitive advantage on a number of those areas actually goes down. And it actually shifts to areas such as Brazil and all sorts of other places around the world.

Their whole competitive advantage is based right now in those crops. It is really based on labor and a huge domestic market that becomes the base that you can export from. But if I were a Chinese corn farmer and thinking 20 years down the road, my water supply may be dependent upon or affected significantly by climate change and water streams off the mountains. I'd be worried.

I'd have to be looking at what can I drip irrigate? And it's not corn. It's going to be tomatoes. It's going to be pick the crop, but you're going to move to things such as drip irrigation and adoption of those type of water-saving technologies, et cetera, that can utilize hand labor, scarce resource, and a high value. Corn and soybeans, to be honest, cotton, doesn't fit that over the long run.

So I think there's a disconnect between what's happening in this decade versus what may happen if we were to look out 20 years.

CHAIRMAN REINSCH: Thank you.

HEARING CO-CHAIR WESSEL: Thank you. Guess we'll be a flood in a sea of Belgian endive soon.

[Laughter.]

HEARING CO-CHAIR WESSEL: Commissioner Tobin.

COMMISSIONER TOBIN: Great. Thank you. You've all focused on the bilateral relationship with China, and I found, Mr. Miller, your picture of the future to be very powerful in response to Commissioner Bartholomew's question. You said pretty much the entire Midwest is happy with this bilateral relationship. You named the states, and you said I think it's a different story on the coast. The status of things there you felt would be different.

So I'd like Dr. Carter, Ms. Nigh, and Mr. Miller, if you wish, to comment on that--because we need to think about the United States holistically, what might Governor Brown have said in China in the last week or so? What are the other issues in other states, if you would? Thank you.

DR. CARTER: Yes, well, Governor Brown is also pushing exports of horticultural products to China. I agree that on the west coast, there's a greater concern about competition from China because California is good at producing horticultural products. And that's inevitable, but it's also true that California agriculture is very adaptable. Mr. Miller talked about adapting to the weather. California agriculture has adapted to changing technology, changing market conditions. It's very dynamic, and it will deal with increased competition.

I think from the big picture, increased competition from China in agriculture is good for U.S.-China relations. I think what's good for the peasant farmer in China is good for the political stability of China and our future relations. So I think anything we can do to help those poor farmers in China improve their situation is going to have a long-run payoff.

It may mean we lose our garlic sector in California, but, you know, we can grow something else.

MS. NIGH: I would generally echo the adaptability of U.S. agriculture. Iowa has changed their planting patterns over the last 50 years in response. I think we had a conversation just yesterday that 40 years ago, you wouldn't have seen many soybeans in Iowa. But they've responded to market conditions and have become a pretty big deal, I think. Right, Dave?

But, in general, U.S. agriculture adapts via technology. Obviously, we in commercial agriculture tend to be fairly dependent upon biotechnology in increasing our yields and our productivity. I speak more about technology in

addition to that seed technology, but also technology in our equipment. Irrigation equipment has come a long way in the last 20 years.

Our systems, our handling systems, to make our food safer, all of these things will continue to be competitive advantages for the United States. But those and mechanization and horticultural products will continue to make us competitive. But competition is usually what drives innovation. So I don't think that we should be fearful of competition in that way but embrace it and realize that there are opportunities. We haven't tapped our entire potential. That might mean we'll change some, but that's not necessarily a bad thing.

COMMISSIONER TOBIN: This is great. I love the faith. Thank you.

HEARING CO-CHAIR WESSEL: Commissioner Talent.

COMMISSIONER TALENT: Thank you, Mr. Chairman.

So how do we get the Chinese to open up the market for pork? How long do you think it takes?

MR. MILLER: Pork is probably one of the least demanding products that they have even though it's been one of the best products going over there, i.e., their domestic production -- they have 450 million hogs. We have 100 million. And it's been, to be honest, a good success story to the extent that it's gone. We've gone from 15 million, if I remember the numbers, $15 million worth of pork or meat exports to 900 million.

I worry more about the beef market. China doesn't import U.S. beef, at least not directly, although I've been in warehouses in China with IBP and Tyson packages of beef in their coolers. Now, it's transshipped out of Hong Kong. So do Chinese markets get U.S. beef? The answer is yes. Officially, no. That market is coming, but that's a much bigger barrier, and getting them to recognize--it's back to the science and technologies of do they recognize the things that we're trying to do through WTO, through the various mechanisms? It would be great if all these things were instantaneous.

But I would argue the Chinese beef market could actually be a much bigger growth market if it were really opened up than what the pork market is just because they have very substantial pork production. Their beef production is moderate relative to that.

COMMISSIONER TALENT: I hear what you're saying. Your colleagues on panels this morning testified, and it made a lot of sense to me, that it really makes no sense for them to be pushing this pork production the way they're doing. You talk about comparable efficiencies in the specialty crops. It's all the other way there. And speculating that eventually they'd end up like South Korea and Japan where they would take our meat, but go--beef, you're correct, too. And maybe there we don't have to fight them so much in terms of the domestic pride that they have about the pork.

MR. MILLER: Well, it's a pride thing. But—I just read a study the other day that there is 47 percent, however, based on a sample. But 47 percent of their pork production is five head or less. Well, why do the people bother with five head of hogs? It's because of stability of their internal self-consumption.

That's not a market production issue. That's an internal food distribution issue, self-security, food security, resources to acquire. It is --in that particular survey, 20 percent of them, why do you have five hogs or less? It's 20 percent of my income.

Those are market structures that have nothing to do with WTO, nothing to do with any of these broader things. These are internal to the cultural, traditional things of income disparity, et cetera. I guarantee if those people had a $20,000 income, those hogs would be gone. Why did Iowa go from everybody having hogs 40 years ago, and now we've gone in about 30 years from 35,000 farms with hogs in Iowa to 5,000 hogs-- 6,000 farms with hogs. We've had a 90 percent reduction. And yet we've got more hogs produced than we've ever had.

Hog production didn't go down, but 90 percent of the hog farms disappeared. We've gone from about 60,000 cattle farms to 35,000 cattle farms. Cattle production didn't necessarily go down. So getting rid of 50 percent of their hog producers probably has nothing to do with hog production. In fact, hog production probably goes up because it will become more feed efficient, more breeding efficient. It takes a lot of money to raise a sow that loses half her pigs.

And so as you move their hog production into confinement, the productivity growth there will actually probably keep their pork production slightly rising for the next decade on the same number of hogs, and yet they're going to get two, three, four percent more pork production every year out of the same number of hogs. That's an internal structural shift that's going to take time.

Beef, that's a market that could be accessed very quickly. So I think part of it is understanding which markets are the structural barriers largest relative to the market potential? And that's not to say the ractopamine issue isn't a big issue. It is an issue if you're in hog production in the state of Iowa, and what that Chinese market means because they eat stuff that we don't want to eat. We've had those panelists talk about that.

But the beef market is almost a clandestine market. And that one, as incomes go up, the Chinese have no aversion to beef. Those are government restrictions that are standing in the way of that market really developing. So I think a number of these markets, it's a matter of looking at how do we get it in. Well, I'm not sure pork is the right product.

COMMISSIONER TALENT: Okay. You're saying, in other words, that our government ought to focus on beef because the structural barriers there may be lower?

MR. MILLER: Yeah.

HEARING CO-CHAIR WESSEL: Commissioner Bartholomew.

COMMISSIONER BARTHOLOMEW: Thanks. I just feel like I'm going to school here.

Two comments. One, Ms. Nigh, I think you mentioned competition. It's not competition we have a problem with, of course. It's the unfair part of the competition that I think we all have to be concerned about. That's where a lot of these issues come up.

Dr. Carter, I'm not sure that the people of Gilroy would be very happy to hear you, wave off the entire domestic garlic industry so we won't tell them. We won't tell them that you did that.

But I want to go back to this issue because I'm still really struggling with what is the role of the Chinese government, in all of this. Mr. Miller, you talk about individual farmers. We're talking about small-scale farmers, many people who are barely subsistence level. How do their lives get transformed?

Dr. Carter, you talk about the need for consolidation of land. Ms. Nigh, you did too. That essentially they need to increase their efficiency, and by increasing their efficiency, you're talking about needing to consolidate the landholding. Of course, there's the whole history of collective farms, and what happened there.

But I'm wondering if you can think about or predict what the role of Chinese state-owned enterprises might be in helping this happen? Do you think that the state-owned enterprises are going to start buying up or are they buying up plots of land in order to turn themselves into agribusinesses? Is there any evidence of what role those enterprises might be playing? And I mention that specifically because of the importance of food self-sufficiency in China. Anybody?

MR. MILLER: I think the first role of the state enterprises actually could be external in places such as Africa, Brazil, but particularly Africa. I think if I as an Iowa farmer were worried about Chinese state-owned enterprises, it's what role they may play in Africa in development of particularly the sub-Saharan area.

COMMISSIONER BARTHOLOMEW: Land. Buying up land and farming it.

MR. MILLER: Of buying land and buying resources. You look at the cases of Zimbabwe--

COMMISSIONER BARTHOLOMEW: Yeah.

MR. MILLER: --various places down there, that at one time were very bright spots of production within Africa, and we know that natural resources are quite good. Places even in Tanzania and Mozambique, et cetera, and a state-run enterprise might actually be the right type of facility.

I struggle to hear myself even saying that, but it might be the right structural facility to go into an African country where you don't have necessarily rule of law. You don't have property rights, and you don't have things. You have a government sanctioned entity that comes with a lot of stuff that private individuals don't have behind them, that they may be able to do ten, you know, a million hectare plots and almost set up their own security borders. For lack of a better, I'll call it mini-states within a state.

And that to me gets very competitively, at least, frightening in terms of what it could do to structures of competitivism, et cetera. I am less probably concerned that those things are going to happen internal to China. However, if you look at the structure, even of the U.S. fruit and vegetable industry, and I get way

out of my line of expertise real quick here, realizing that we maxed out at a hundred tomato plants.

COMMISSIONER BARTHOLOMEW: That's a lot of tomatoes.

MR. MILLER: That's a lot of tomatoes. But go back 50 years ago, and the U.S. fruit and vegetable industry was dominated by small farms, et cetera, and now it really is dominated by large agribusinesses. They're not state enterprises, but they are the large agribusinesses with large tracts of land, integrated production systems, and in the full scope of things from production to both fresh market and processed markets and the combination, because all the economic efficiencies were there to do that.

China's fruit and vegetable industry, I would argue, again, look 20 years ahead, is going to look an awful lot like the U.S. fruit and vegetable industry if they can solve the land issues based around that because the economic efficiencies are so dominant of that structure relative to those industries.

COMMISSIONER BARTHOLOMEW: I think what I would say is 20 years from now if they've done that, it's going to be because state-owned enterprises are doing it or controlling the companies, but--

MR. MILLER: They'll be the mechanism of getting the land transformation to have occurred. I'm not sure private enterprise is going to be quick enough in some of those industries to get the land transformation structures accomplished.

COMMISSIONER BARTHOLOMEW: Dr. Carter.

DR. CARTER: Yeah, I don't think I would bet on the state-owned enterprises. I think there's a lot of distrust in terms of what they would do with the land. There are a lot of scandals right now with land grabs in China, and some of those are being driven by state-owned enterprises. Corporations like COFCO would love to get their hands on more land, but they have a huge real estate division, and they're not going to use it for agriculture. They're going to make money by developing it.

So I think there has to be land reform. It's a very difficult hill to climb, but I think it's absolutely necessary, and it will happen. It's just going to take a long time.

COMMISSIONER BARTHOLOMEW: Ms. Nigh.

MS. NIGH: I would just come back to the fact that the number that's been thrown around is 200 million farmers. If the state-owned enterprises come in and start buying up land, what do you do with all those 200 million farmers? Do you have someplace for them to go? Do you have jobs for them? That's been a lot of the push of keeping people on the land, is that they're not quite ready for that influx of all those farmers.

COMMISSIONER BARTHOLOMEW: But that's going to be an issue whether it's privately bought land or whether it's state-owned enterprise bought land. In some ways I think one could argue that if it was state-owned, they would have more of a role in trying to see what happens to the farmers who lost their land than if it was private enterprise.

Again, I'm hypothesizing here, but, yeah, I wouldn't discount that. I mean it's been part of the whole state-owned enterprises and taking care of people because as you were talking about the need to consolidate, I kept thinking so what happens to all of these people? It's not as though they can all move to the cities because, in fact, there are people in the cities who are moving back out to the land.

DR. CARTER: I think the problem will solve itself. It was about a year ago the last time that I toured the countryside in China, and I met very few farmers who were younger than I am. So another ten years. The young people have left. So in another ten years, this problem of 200 million farmers is going to solve itself, I think. But there will have to be land consolidation.

COMMISSIONER BARTHOLOMEW: And some place for them to go.

DR. CARTER: Well, they've left already. All all that's left are the old people.

COMMISSIONER BARTHOLOMEW: It's happening in our own rural areas, too, isn't it? All right. Thank you all. You've been very patient with all of my questions. Thank you.

HEARING CO-CHAIR WESSEL: I want to thank the panelists for their testimony today. It's been very helpful.

We will take a 15-minute break before the next panel.

[Whereupon, at short recess was taken.]

PANEL IV INTRODUCTION BY COMMISSIONER MICHAEL R. WESSEL

HEARING CO-CHAIR WESSEL: Our final panel today will look at intellectual property and the potential to add more value to our agricultural exports to China. Animal feed, ethanol, fertilizer, and biotech are just some of the products that add major value to the U.S. agricultural economy and create U.S. jobs.

At present, much of our exports to China still consist of commodities such as soy, cotton and corn. The panel will address the potential for higher value-added sectors of the U.S. agricultural economy to benefit from the China relationship and some of the market access barriers they are facing.

In our fourth panel, we look forward to hearing from Dr. Mark Lange, CEO of the National Cotton Council. Mr. Lange began working at the National Cotton Council in 1990 and directed its economic services and information services before being named Vice President of Policy Analysis and Program Coordinator in 2001.

Over the past decade, he has witnessed the complex changes in the U.S. cotton industry on account of growing trade with China. While cotton is now our second-leading export to China, many industries in the U.S. fiber and textile sector have faced tough competition from the Chinese producers.

At the NCC, Mr. Lange represents these various interest groups. He holds a bachelor's and master's degree from Indiana State University, and received a Ph.D. in Economics right here at Iowa State University.

We will also hear from Dr. Barb Glenn, Vice President, Science and Regulatory Affairs at CropLife America in Washington, D.C. Dr. Glenn is responsible for the development, implementation, and management of effective science and regulatory policy strategies in support of CropLife America's mission to support modern agriculture through the crop protection industry.

Dr. Glenn previously served as Managing Director of Animal Biotechnology in the Food and Agriculture Section at BIA, the Biotechnology Industry Association, and can therefore address biotechnology industries as well.

Dr. Glenn received her Ph.D. in Ruminant Nutrition and a bachelor's in Animal Science from the University of Kentucky.

Finally, we will hear from Mr. Julius Schaaf, Vice President of the U.S. Grains Council and a corn and soy farmer here in Iowa. He has worked at the Council since 2003 where he helps promote the use of U.S. barley, corn, sorghum, and their related products worldwide.

Mr. Schaaf leads the Council's Asia Advisory Team and traveled to China in recent weeks. He is the past chairman of the Iowa Corn Promotion Board and has also served on the research and biotech committees for the Iowa Corn Promotion Board.

Alongside these duties, Mr. Schaaf has found time and has farmed corn and soy for over three decades, carrying on a family business now in its fifth generation. Mr. Schaaf received his Bachelor of Science degree from the

University of Iowa, and we will begin with Dr. Glenn, the only non-Iowa student.

OPENING STATEMENT OF DR. BARBARA P. GLENN
SENIOR VICE PRESIDENT
SCIENCE AND REGULATORY AFFAIRS AT CROPLIFE AMERICA

DR. GLENN: All right. Thank you very much, Mr. Commissioner. It's a great opportunity to address the Commission today. I'm Dr. Barb Glenn. I'm Senior Vice President for Science and Regulatory Affairs at CropLife America in Washington, D.C.

CLA represents over 100 developers, manufacturers, formulators, and distributors of virtually all the crop protection products that are used by American farmers today. So we represent the united voice of the industry that ensures the safe and affordable supply of food with respect to the safe and responsible use of agricultural chemicals.

Our members are deeply engaged in the global agricultural economy through trade and crop protection as well as biotechnology products, and also through international collaboration in research and development related to those products. So in this context, CropLife America engages actively to promote open markets, sound and internationally converging regulation, and strong protection of intellectual property rights around the world.

Our members regard China as a market of immense promise. The American crop protection and ag biotech industries have benefited from the rapid expansion of Chinese agricultural production in recent years and from Chinese policies that recognize that crop protection technologies and the deployment of modern biotech are essential to achieving China's own national agricultural objectives.

So in this respect, China represents a success story for crop protection and for the American crop protection industry. At the same time, our members continue to confront a number of intellectual property and regulatory challenges that impose limits on commercial success in the Chinese market.

In our view, these limitations are also inhibiting Chinese partners from advancing successfully with regard to even their own agricultural productivity and their national R&D objectives.

So China clearly recognizes technology is key to their national food security. In particular, they have increasingly integrated crop protection as a tool in national ag production, and this has been an important part of their recent productivity success in agriculture.

So, for example, we know between 2001 and 2010, they've harvested increasing acreages of corn, 55 percent; wheat, 22 percent; and the combined grains by 21 percent. But what is typically not identified is that this progress has been largely due to not only their unprecedented gains in productivity, but this does reflect China's increasing use of herbicides to control weed infestations.

Now, herbicide application areas of crop fields have steadily increased in China from less than one million hectares in the early '70s to more than 70 million hectares in 2005, and it's continuing to climb. So, as I noted earlier, U.S.

manufacturers and exporters of crop protection products have actively participated and are successful in growing this market for herbicides and other products for our industry.

I'd also like to note that the crop protection industry has taken note of China's constructive approach to sound regulation of our industry's products, both domestically and in their participation in international regulatory bodies.

So China has played an extremely high level and important leadership role in the Codex Committee called the Committee on Pesticide Residues, which is obviously the international body that sets food safety standards. But this particular committee sets the maximum residue levels that are so important to global trade.

In a domestic regulatory context, our industry does enjoy a strong and productive partnership with their federal regulatory agency called the Institute for the Control of Agricultural Chemicals, which is in the Ministry of Agriculture. So we call it ICAMA. And that is indeed their chief regulator. I can talk a little bit more about the progress they're making later.

But despite these positive trends and China's recognition of the value of the products of our industry, we do, of course, have a number of concerns, particularly with regard to protection of intellectual property rights. So briefly, in recent years, number one, there have been increasing instances of the circulation of illegal crop protection chemicals within China. And this is becoming and is a bigger issue than even counterfeiting of pesticides.

Of course, illegal crop protection products in that country has a very chilling effect on research and development by the industry, both internally and our own.

We appreciate that ICAMA has just recently announced a crackdown. I can talk about that more later. But they have revoked the licenses of four local companies, also another example, involved in production of illegal pesticides, and this is indeed significant progress.

But there's a need for government and industry to really cooperate in a long-term sense to raise awareness and increase education, not only those local companies, but to also increase the bang for the buck on the impacts of the enforcement program. So we support these kinds of holistic programs.

In recent years, the U.S. companies have also faced increasing instances then of the circulation of counterfeit pesticides within China. These products are manufactured by criminals, and they are often labeled with trademarks and packaging aimed at deceiving farmers. They are laid out at the Shanghai Exposition and that are purchasing--they're deceiving farmers that think they're purchasing legitimate pesticides. So this is a real problem on many fronts.

So we appreciate, again, that the Chinese central government is trying to crack down on this at the central government level, and we hope that that effort is sustained.

Another aspect of IPR protection for us is the misappropriation of trade secrets. Obviously, these are a critical element of protecting innovation that

goes into creating our products, including biotech. So here again, the crop protection manufacturers, we have experienced unauthorized misappropriation of their trade secrets, or CBI, and the use of those trade secrets to produce these infringing products.

CLA appreciates that issues related to trade secrets have been identified as a subject of a bilateral cooperation in the context of something called the U.S.-China Joint Commission on Commerce and Trade, and we hope that both sides will continue to work together.

Another area is data protection. The protection of regulatory test data submitted in connection with the regulatory approval of one of our products is a matter of particular and high-level importance to CLA. Under the World Trade Organization rules, such data must be protected against unfair commercial use, and in joining WTO, China committed to protecting data for that period of six years.

We, CropLife America, hold the view that a minimum of ten years of data protection is justified with regards to our products.

So these obviously create an unmet potential for research and development. This is something that we hope, we continue to work on, not only through the protection of IPR but also on the science side and the research side, which Secretary Northey referred to early today.

So, in conclusion, I would like to offer a few suggestions with regard to how the issues I've raised today might be addressed in policy channels between the U.S. and China.

First of all, we know it's vital that the U.S. and China remain engaged. That's obvious, but CLA hopes that the critical role of crop protection in modern biotechnology in addressing food security can continue to be an important feature of bilateral discussions, particularly in front of that central Chinese government, which we've referred to earlier as maybe not understanding our space.

Secondly, IPR protection and enforcement in China should continue to be addressed as a priority matter by officials at all levels of the U.S. and Chinese governments. CLA urges particular attention to that misappropriation of trade secrets, enforcement against illegal and counterfeit crop protection products, and consideration of data protection for ag chemicals that is longer in duration and more secure in administration.

Thirdly, CLA urges an expansion and intensification of dialogue and cooperation between the regulators in the U.S. and in China. We do enjoy collaboration between the U.S. Environmental Protection Agency and ICAMA at this time. It actually appears that it's bringing about real tangible results, still yet to be finalized, but it's moving in the right direction.

So this really reinforces China's will and their selection to advance a sound science-based regulatory process. That's a positive.

It may be useful to consider creating a structure or a forum whereby we institutionalize this shared focus instead of just saying we're talking about it on crop protection products as part of a broader effort to address food security concerns.

So my thanks to the Commission for allowing us to make this comment, and I look forward to the discussion. Thank you.

PREPARED STATEMENT OF DR. BARBARA P. GLENN
SENIOR VICE PRESIDENT
SCIENCE AND REGULATORY AFFAIRS AT CROPLIFE AMERICA

April 25, 2013

Barbara P. Glenn, PhD.
Senior Vice President, Science and Regulatory Affairs
CropLife America

Testimony before the U.S.-China Economic and Security Review Commission

"China's Agriculture Policy and U.S. Access to China's Market"

Thank you for the opportunity to address the Commission.

CropLife America represents more than 90 developers, manufacturers, formulators, and distributors of virtually all the crop protection products used by American farmers and growers. We are the voice of the industry that ensures the safe and responsible use of agricultural chemicals in order to provide a safe, abundant, and affordable food supply (www.croplifeamerica.org).

Our members are deeply engaged in the global agricultural economy, through trade in crop protection and biotechnology products, and through international collaboration in research and development related to those products. In this context, CropLife America engages actively to promote open markets, sound and internationally converging regulation, and strong protection of intellectual property rights around the world.

Our members regard China as a market of immense promise. The American crop protection and agricultural biotechnology industries have benefited from the rapid expansion of Chinese agricultural production in recent years, and from Chinese policies that recognize that crop protection technologies and the deployment of modern biotechnology are essential to achieving China's national agricultural objectives. In many respects, China represents a success story for crop protection, and for the American crop protection industry.

At the same time, our members continue to confront a number of intellectual property and regulatory challenges that impose limits on commercial success in the Chinese market. In our view, these limitations are also inhibiting our Chinese partners from advancing successfully with regard to their own agricultural productivity and national R&D objectives.

China, Crop Protection, and Food Security

In the China market, as everywhere around the world, CropLife America's point of departure is that the products of our industry are critical to meeting the challenges of food, feed, and fiber security on our

increasingly populous planet. Sensible, well-regulated deployment of pesticides and innovative agricultural biotechnology is helping the world ensure sustainable quantities of safe food, feed and fiber.

With its enormous population, rising production costs, and increasing focus on ensuring the safety, as well as adequate quantities, of its food supplies, China clearly recognizes that technology is the key to many of its food security challenges. In particular, China's increasing integration of crop protection as a tool in national agricultural production has been an important part of the country's recent success in agricultural productivity.

Between 2001 and 2010, China's harvest of corn expanded by 55 percent, wheat by 22 percent, and combined grains by 21 percent (*US Department of Agriculture, Economic Research Service, 2013*). This progress has been largely due to unprecedented gains in productivity, reflecting, in part, China's increasing use of herbicides to control weed infestations. The herbicide application areas of crop fields have steadily increased, from less than one million hectares in the early 1970s to more than 70 million hectares in 2005. Herbicides are used on approximately 75 percent of the rice acres, 55 percent of wheat acres, 44 percent of maize acres, 50 percent of cotton acres, and 61 percent of soybean acres. (*CropLife Foundation, 2011*) This trend has contributed enormously to increased yields for all of these crops. And as I noted earlier, U.S. manufacturers and exporters of crop protection products have participated actively and successfully in this growing market for herbicides and other products of our industry.

Sound Leadership in Domestic Regulation and International Regulatory Work

I would also like to note that the crop protection industry has taken note of China's constructive approach to the sound regulation of our industry's products, both domestically and in the context of international regulatory bodies. China has played an important leadership role in the Committee on Pesticide Residues of the Codex Alimentarius Commission (http://www.codexalimentarius.org/committees-and-task-forces/en/?provide=committeeDetail&idList=4), the international body that develops international food standards. This leadership was particularly evident in the context of efforts to develop harmonized approaches to the regulation of maximum residue levels for pesticides applied to food crops.

In a domestic regulatory context, our industry enjoys a strong and productive partnership with the Institute for the Control of Agricultural Chemicals of China's Ministry of Agriculture (ICAMA, http://www.chinapesticide.gov.cn/en/abouticama.html), the chief Chinese regulator of our industry's products. ICAMA is progressively raising the standard of Chinese regulations in ways that are generally shaped by science, and particularly on the use of risk-based analysis of our products. We are confident that the good collaboration between U.S. and Chinese pesticide regulators will continue to contribute to the solidification of sound science-based regulatory approaches by ICAMA.

Intellectual Property Concerns

Despite these positive trends, and China's recognition of the value of the products of our industry, we do have a number of concerns, particularly with regard to the protection of intellectual property rights. I appreciate the opportunity to summarize these today.

In recent years, there have been increasing instances of the circulation of illegal crop protection chemicals within China, and this has become a bigger issue than counterfeiting of pesticides. Illegal crop protection chemicals have a chilling effect on research and development by the industry. Use of illegal pesticides by growers may contribute to crop production issues such as lack of efficacy, development of weed or insect resistance, and other concerns such a farm worker safety and residual chemical. We appreciate that ICAMA just announced recently that it had revoked the licenses of four local companies involved in production of illegal pesticides. This is significant progress; however ICAMA could increase engagement in the detection of these illegal products coupled with prompt enforcement action by the authorities due to the widespread nature of this IPR abuse. For example, ICAMA could adopt random market inspections for manufacturing sites, warehouses, and distribution channels; support adoption of best practices; conduct additional communication and education programs; and advance more rigorous enforcement and consequences. There is a need for government and industry to cooperate in the long term to raise awareness and increase education of the local companies to optimize the impact of the enforcement program. These types of holistic programs are more likely to succeed than enforcement alone.

In recent years, U.S. companies have faced increasing instances of the circulation of counterfeit crop protection chemicals within China. These products, manufactured by criminals, are often labeled with, trademarks and packaging aimed at deceiving farmers that they are purchasing legitimate registered pesticides. This is a problem of particular concern. In addition to depriving legitimate, registered, U.S. crop protection chemicals of their place in the Chinese market, the high incidence of counterfeiting poses substantial risks of crop destruction. Counterfeiting practices also expose farmers to unknown substances, thereby undermining China's own objectives with regard to regulation of pesticides based on risk assessment. In February 2013, (*Beijing News, 2013*) the Ministry of Agriculture (MOA) announced a crackdown will be launched to prevent the production and sale of counterfeit seeds, pesticide, fertilizer and other agricultural production materials. The campaign will be carried out by nine government departments aimed at safeguarding farmers' rights and securing grain production. The MOA also called for cooperative efforts among relevant authorities to strengthen supervision over agricultural production materials. We appreciate that Chinese officials, particularly at the central government level, have begun to focus additional attention on law enforcement in this area. We hope that this effort will be sustained, and complemented by stronger enforcement action at the provincial government level.

Another aspect of IPR protection that concerns our industry is the misappropriation of trade secrets. Trade secrets are a critical element of protecting the innovation that goes into the creation of crop protection and biotech products. Here again, crop protection manufacturers have experienced the unauthorized misappropriation of their trade secrets, and the use of those secrets to produce infringing products. CropLife America appreciates that issues related to trade secrets have been identified as a subject of bilateral cooperation in the context of the U.S.-China Joint Commission on Commerce and Trade (JCCT), and we hope that both sides will work vigorously to address concerns in this area. It is particularly important to ensure that trade secrets provided in the context of regulatory approval processes are fully safeguarded from disclosure, and that regulatory authorities refrain from requesting trade secrets that are not relevant to regulatory approval.

The protection of regulatory test data submitted in connection with regulatory approval of crop protection products is a matter of particular and global importance for CropLife America. Under World Trade Organization rules, such data must be protected against unfair commercial use. In joining the WTO, China committed to protecting such data for a period of six years. CropLife America holds the view that a minimum of ten years of data protection is justified with regard to the products of our industry, and this standard has been pursued in the context of U.S. free trade agreements. While CropLife America acknowledges that China is bound only by the more limited commitment reflected in its WTO accession protocol, we hope that China will recognize that its own interests in innovation and the attraction of investment merit an extension of the protection period to ten years.

On a related issue, we are seeing an increase in China's registration of crop protection products that remain subject to a valid patent. While such practices may not directly contravene international IP rules, we believe the practice may have a chilling effect on innovation in the development and marketing of new crop protection products.

Unmet Potential of R&D Collaboration

These shortcomings in protection and enforcement of IPR clearly raise concerns for the protection of U.S. rights and the products of U.S. innovation. Importantly, these concerns also affect the confidence of U.S. companies with regard to R&D collaboration with Chinese colleagues. Improved Chinese enforcement of protected data, trade secrets, patents and trademarks related to crop protection will bring about an increase in that confidence, creating stronger potential for R&D collaboration and advancing the Chinese government's objectives in strengthening their country's profile as an innovation leader.

Recommended Focus for U.S.-China Policy Engagement

In conclusion, allow me to offer a few suggestions with regard to how the issues I've raised today might be addressed in policy channels between the United States and China.

First, it is vital that the United States and China remain engaged with respect to the global challenge of food, feed, and fiber security. This challenge is not going away, and as two of the world's leading agricultural economies, the United States and China will need to exert shared leadership to ensure appropriate, market-driven outcomes. CropLife America hopes that the critical role of crop protection and modern biotechnology in addressing food security can continue to be an important feature of bilateral dialogue in this area.

Second, IPR protection and enforcement in China should continue to be addressed as a priority matter by officials at all levels of the U.S. and Chinese governments. CropLife America applauds the vigorous approach of the current U.S. Administration and its predecessors in this area, and we acknowledge that China, recognizing its own interests in innovation, has adopted a more constructive posture with respect to enforcing its own laws in this area. But it is clear that major challenges remain, and must be addressed. In this respect, CropLife America urges particular attention to the misappropriation of trade

secrets, enforcement against illicit, counterfeit crop protection products, and consideration of data protection for agricultural chemicals that is both longer in duration and more secure in administration.

Third, CropLife America urges an expansion and intensification of dialogue and cooperation between U.S. and Chinese regulators of crop protection and biotechnology products. Collaboration between the U.S. Environmental Protection Agency (EPA) and China's ICAMA has brought about real, tangible results, reinforcing China's movement towards sound, risk-based regulation of crop protection products. EPA's experience in regulating the products of our industry can help to inform Chinese counterpart authorities in useful ways. Dialogue also offers Chinese regulators the opportunity to reflect on particular priorities or challenges that they face. It may be useful to consider creating structures to institutionalize a shared focus on crop protection products as part of broader efforts to address food security concerns. This sort of enhanced bilateral regulatory dialogue should make room for industry perspectives as well.

Indeed, CropLife America has devoted considerable effort to thinking about effective, sensible regulation in our sector, and is interested in contributing our views in the context of U.S.-China cooperation. My thanks to the Commission for the opportunity to provide these views.

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OPENING STATEMENT OF DR. MARK LANGE
CEO, NATIONAL COTTON COUNCIL OF AMERICA

DR. LANGE: I would like to thank the members of the U.S.-China Economic and Security Review Commission for the opportunity to present testimony regarding cotton trade with China and the effect of China's policies.

The National Cotton Council is a unique organization. It is a vertically integrated trade association of the U.S. cotton industry. Its members include producers, ginners, cottonseed processors, merchandisers, merchants, cooperatives, warehousers and textile manufacturers. A majority of the industry is concentrated in the 17 cotton- producing states, but downstream manufacturers of cotton apparel and home furnishings are located in virtually every state.

Farms and businesses directly associated and involved with production, distribution, and processing of cotton employ almost 200,000 workers and produce direct business revenue of more than $27 million. In addition to the cotton fiber, cottonseed products are used for livestock feed. Cottonseed oil is an ingredient in food products as well as being premium cooking oil.

Export markets represent the primary outlet for U.S. cotton production with approximately 75 percent moving into the international trade channel. In most key importing countries, raw cotton faces little, if any, tariff and no quota restrictions.

The important exception is the extraordinarily tight access control applied by China. China's rapid increase in cotton production, cotton mill use, and imports, textile and apparel exports has made China the dominant force in world cotton trade and world trade in cotton textiles and apparel.

Alongside this rise in dominance, China has adopted policies that significantly distort the world cotton and cotton product markets. These policies range from non-transparent and unreliable reporting of cotton supply and demand statistics, centrally-controlled stock and quota purchase policies, and variable rate levies on cotton imports.

With the elimination of the Multi-Fiber Agreement and the accession of China to the WTO, the United States opened its markets to Chinese produced textiles and apparel. Since that time, annual domestic mill consumption of cotton in the United States has declined by over six million bales.

The U.S. cotton producer must now export 75 percent of their production to other countries, and China now accounts for 50 percent on an average annual basis of U.S. cotton exports. The distortions in the world cotton fiber and cotton product markets caused by this disparity in market openness and access will continue to undermine U.S. manufacturing as well as other efforts to liberalize world trade in cotton and cotton products.

China remains the world's largest cotton producer in 2012 with a crop estimated at 35 million bales, approximately 29 percent of the world's production. It's also the world's largest processor of raw cotton in its textile mills. It's expected to use 36 million bales in this marketing year, and that makes it the

largest, also the largest spinner of cotton.

China remains a net importer of cotton fiber but the gap between domestic use and production is expected to narrow in this marketing year. For the eighth consecutive year, China was the largest supplier of cotton textile products to the United States. Total cotton product imports from China are estimated at an equivalent to 5.4 million bales in 2012, and that's down very slightly from 2011.

However, cotton textile imports are up by an amazing 558 percent from 2001 when China entered the WTO. China's share of imported cotton goods in the U.S. market has accelerated from approximately 11 percent in 2004 to an estimated 31.8 percent in 2012.

China's WTO accession negotiations established a tariff rate quota of 4.1 million bales in 2001. In 2001, China used 20 million bales in its textile mills. With the transformation and the implementation, the elimination of the Multi-Fiber Agreement, and China's full participation in the textile and apparel market, by 2009, China was using 50 million bales of cotton in its textile mills, while, of course, the U.S. dropped from 11 million bales to about four million bales in use.

At the same time, though, China has continued to impose very tight restrictions on its market access. In various times during the year, China will announce additional quota above the WTO required TRQ, but the process for the determination by Chinese authorities of additional quota is unknown and completely nontransparent. Generally, these imports are subject to a variable levy that ranges from five to 40 percent, and they do this in order to maintain high prices of cotton inside China.

China's domestic prices for cotton are considerably higher than the international prices. They do this in order to protect the Chinese grower, but end up with a distorting mechanism in their marketplace.

Additionally, importers must receive import licenses from the central authorities before entering into import contracts.

In the calendar year 2011 and 2010, world cotton prices went through a period of extraordinary volatility, and many mills became very concerned about cotton availability. India went so far as to impose a ban on cotton and cotton yarn exports. China became very concerned about their stock level, and they changed their cotton policy.

They initiated a policy of purchasing cotton into their national reserves at a level of about $1.40 per pound, and they required their textile mills to also be paying that same price. By the time the end of 2011 occurred, what we saw was a considerable reduction in cotton prices from world level that had been about $1.40 to under $1 a pound.

China now holds about 33 million bales in its government reserves. As I noted, its mill use is about 36 million bales, and it will continue to produce about 31 million bales.

The world price for cotton for the last 12 months has averaged about 86 cents per pound. So with the Chinese providing that kind of support to their producers, they're considerably above their WTO commitments, as Dr. Carter and

Dr. Gale had mentioned earlier.

While the Chinese policy is providing short-run support to essentially the world's cotton market as they continue to absorb cotton, import cotton and put it into their reserves, there is long-term evidence that this is going to eventually present a serious drag on the world economy for two reasons: one is at some point they probably will begin to release that stock, and the second is that they have now pressed a gap inside China of about 50 to 60 cents per pound as the difference between the price of cotton and the price of polyester.

The Chinese mills are now using polyester instead of cotton. They were using 50 million bales of cotton several years ago; they're down to about 35 or 36 million bales. All that was lost to polyester. At the same time, polyester use continued to grow in China.

They have recently announced a continuation of the current policies with a new support price for the 2013 crop at $1.48 per pound. They're now in a situation where essentially they can't get rid of the tiger they have by the tail. If they were to begin to release cotton stocks, they will reduce world prices. If they reduce world prices, they increase the cost of their own program.

But they haven't figured out how to pay their farmers without continuing to keep this high price for cotton. And, of course, in the United States, we went through a period of target prices for products, but we made target price deficiency payments to growers. We didn't let the target price dictate the market price. The target price was the price of support to the grower. It was not the market price for the product. The Chinese have yet to figure that out.

So they are the uncertainty for the world's marketplace, and in the coming year, everybody will be watching what China decides to do with those reserves. The U.S. cotton industry remains very concerned with the lack of transparency in their policy. What will be eventually the reserve level that for the government constitutes sufficient stocks that they no longer purchase cotton into their reserves?

Do the Chinese officials monitor and report cotton stocks that are not held by the government because there are considerable stocks held publicly? Are Chinese mills bound to any set purchase pattern between domestic cotton and imported cotton? We hear that now Chinese mills may be required to buy two bales of cotton out of reserves for every bale they import.

And how will decisions on the quantity of import licenses beyond the TRQ be made? These uncertainties with Chinese policy has the U.S. cotton industry and the entire world cotton industry on edge.

I thank you very much for the opportunity to present our concerns.

PREPARED STATEMENT OF DR. MARK LANGE
CEO, NATIONAL COTTON COUNCIL OF AMERICA

April 25, 2013
Ames, IA
Dr. Mark D. Lange
President and CEO, National Cotton Council
Testimony before the U.S.-China Economic and Security Review Commission
China's Agriculture Policy and U.S. Access to China's Market

As President and CEO of the National Cotton Council, I would like to thank the members of the U.S.-China Economic and Security Review Commission for the opportunity to present testimony regarding cotton trade with China and the effect of China's policies.

The NCC is the central organization of the United States cotton industry. Its members include producers, ginners, cottonseed processors and merchandizers, merchants, cooperatives, warehousers and textile manufacturers. A majority of the industry is concentrated in 17 cotton-producing states. The downstream manufacturers of cotton apparel and home furnishings are located in virtually every state. Farms and businesses directly involved in the production, distribution and processing of cotton employ almost 200,000 workers and produce direct business revenue of more than $27 billion. Annual cotton production is valued at more than $6 billion at the farm gate, the point at which the producer sells. Accounting for the ripple effect of cotton through the broader economy, direct and indirect employment surpasses 420,000 workers with economic activity well in excess of $100 billion. In addition to the cotton fiber, cottonseed products are used for livestock feed, and cottonseed oil is used as an ingredient in food products as well as being a premium cooking oil.

Export markets represent the primary outlet for U.S. cotton production with approximately 75% moving into international trade channels. In most key importing countries, raw cotton faces little if any applied tariff and no quota restrictions. However, an important exception to the relatively open trading situation is the tightly monitored access allowed by China.

China's rapid increase in cotton production, cotton mill use, cotton imports, and textile and apparel exports has made China the dominant force in world cotton trade and world trade in cotton textiles and apparel. Alongside this rise to dominance, China has adopted policies that significantly distort the world cotton and cotton product markets. These policies range from non-transparent and unreliable reporting of cotton supply and demand statistics, centrally-controlled stock and quota policies, and variable rate levies on cotton imports.

With the elimination of the Multi-Fiber Agreement and the accession of China to the WTO, the United States opened its markets to Chinese-produced textiles and apparel (as well as apparel produced elsewhere). Since that time, annual domestic mill consumption of cotton in the United States has declined by over 6 million bales. Unfortunately, the decline in U.S. mill use has been accompanied by a loss of jobs in the textile industry. Between 2001 and 2012, total U.S. textile employment fell by 500

thousand workers.

Instead of selling 2/3 of its production to U.S. manufacturers, U.S. cotton producers must now export 75% of their production to other countries, with China accounting for roughly 50% of U.S. cotton exports. The distortions in world cotton fiber and cotton product markets caused by this disparity in market openness and access will continue to undermine U.S. manufacturing as well as efforts to liberalize world trade in cotton and cotton products.

Overview of China Supply & Demand

China remains the world's largest cotton producer with a 2012 crop estimated at 35.0 million bales, or 29% of the world total (Table 1). Along with being the world leader in cotton production, China is also the largest processor of raw cotton. For the 2012 marketing year, China's cotton mill use is expected to be 36.0 million bales. China remains a net importer of cotton fiber, but the gap between domestic use and production is expected to narrow for the 2012 marketing year.

China's Textile Exports

For the eighth consecutive year, China was the largest supplier of cotton textile imports into the U.S. Total cotton product imports from China are an estimated 5.4 million bale equivalents in 2012, down 5.6% from 2011. However, cotton textile imports are up by 558% from 2001 when China entered the WTO. China's share of imported cotton goods in the U.S. market accelerated from 10.9% in 2004 to an estimated 31.8% in 2012.

In 2012, the single largest supplier of imported cotton goods into the U.S. market was China. On a square meter equivalent (SME) basis, the largest category of cotton product imports from China in 2012 was "other cotton manufactures", which accounted for 23.4% of all cotton product imports from that country. Trousers was the second largest category of cotton imports from China in 2012, comprising 13.2% of total cotton product imports from that country. Knit shirts accounted for 6.0% of U.S. cotton textile and apparel imports from China in 2012. Nightwear was the fourth largest category and accounted for 5.4% of cotton product imports.

China's Cotton Import Policies

China's WTO accession negotiations established a tariff rate quota (TRQ) of 4.1 million bales. This TRQ is not adequate and not reflective of China's position as the number one cotton producer and processor in the world. Since it acceded to the WTO in 2001, China's growth in cotton consumption, mill use and apparel production, coupled with the loss of U.S. mill use as a result of Chinese competition, have dramatically changed the world cotton market. While China's cotton mill use increased by 20 million bales, U.S. mill use dropped from 11 million bales to below 4 million bales. China's access commitments must be re-evaluated in light of its dominant position in the world textile and apparel market.

At various times during the year, China will announce additional quota above the WTO-required TRQ. The process for determination by Chinese authorities of additional quota is unknown and completely nontransparent. Generally, those imports are subject to a variable levy ranging from 5% to 40%, in order to maintain cotton prices in China significantly above international prices and protect prices paid

to Chinese cotton growers. Additionally, importers must receive import licenses from the central authorities before entering into import contracts.

Cotton can also be imported outside of the quota system. However, the importer is still required to acquire an import license and will be assessed a 40% tariff.

China's Support Price and Internal Reserve System

In calendar years 2010 and 2011 world cotton prices went through a period of extended strengthening and increased volatility. Mills in many countries became highly concerned with cotton availability. India went so far as to impose a ban on cotton and cotton yarn exports. China saw their total year-end cotton stocks fall to the lowest level in 20 years, just over 10 million bales. Responding to concerns about reserves and prices for growers, in September 2011, China initiated a policy of purchasing cotton into their national reserves at a level of 19,800 yuan per ton. At current exchange rates, that equates to approximately $1.40 per pound. China is continuing to operate the reserves policy for the 2012 crop at a procurement price of 20,400 yuan per ton, a 3% increase from the 2011 level. By the end of the current marketing year, China could hold more than 33 million bales in government reserves.

World cotton price, as reported in Cotlook Ltd Far East "A" Index has averaged 86 cents per pound for the most recent 12 months. By purchasing domestic production at prices 40 to 50 cents above world prices, China is insuring that their internal prices are well above world prices, and causing their cotton spinning to be uncompetitive (Figure 1). China's current policy, while supporting prices received by farmers, acts as a tax on textile mills and has furthered the shift to manmade fiber.

While China's policy is providing short-term support to the cotton market, there is increasing evidence that the policy will provide a longer-term drag on cotton demand in China. While the "A" Index has moved to a level much more competitive with polyester prices, the same cannot be said for cotton prices in China's domestic market. The current differential between cotton and polyester prices in China ranges between 50 and 60 cents. As a result, textile manufacturers are shifting to manmade fiber, and cotton is losing market share.

China just recently announced that the support price will be maintained at the 2012 level of 20,400 yuan per ton with no limits on the quantities that may enter the government reserves. At current exchange rates, the support price equates to $1.48 per pound.

Cotton's Fiber Market Share

According to PCI Fibres, China's 2013 manmade fiber (MMF) mill use is estimated at 158 million bales, which is more than 4 times the size of their cotton mill use. Since 2007, China's MMF mill use has grown by 52 million bales, while cotton mill use has fallen by 15 million bales (Table 2). As a result, cotton's market share has fallen from 32% in 2007 to a projected 18% in 2013. Unless there is a dramatic change in relative prices in China, it will be extremely difficult, if not impossible, to reclaim that market share.

The current support program is also causing changes in the textile supply chain to Southeast Asia, South Asia and Latin America. With China's textile mills unable to pay the higher prices for raw fiber, there

has been an increase in yarn imports, primarily being sourced from Pakistan and India (Table 2). While China has import duties on raw cotton, it does not have import duties on cotton yarn. However, only one out of every three bales of lost mill use is being offset by increased yarn imports. The net effect is an erosion of cotton demand due to internal prices being maintained as levels well above world market prices.

China's Support to Cotton Farmers

The combined effect of China's import quota allocation and stocks policies is a domestic price to their cotton farmers that consistently exceeds world prices. Using price wedge analysis, the effective subsidy ranged between 11 and 37 cents per lb. for the years 2005-2011, and data suggest an even larger gap for 2012. While one of the stated goals of the reserves policy is to support the price received by farmers, the impact of the current policy is to create a tax on domestic mills, thus discouraging use of cotton and encouraging the shift to polyester.

Looking Forward

China's total raw cotton imports are estimated at 16.5 million bales for the current marketing year, roughly three-fourths of the 24.5 million bales imported in the 2011 marketing year. Total ending stocks for the 2012 marketing year are projected to reach a record level of 45.6 million bales. The sharp decline in mill use and the very significant build-up in cotton stocks has been the direct result of changes in their cotton policy.

For the coming year, China's decision regarding sales from the reserves and the allocation of import quotas/licenses is the key uncertainty. With projected production of 31.2 million bales, it is assumed that 85% of the crop will enter government reserves, which is consistent with the percentage of the 2012 crop entering reserves. Assuming China sells 21 million bales from the reserves over the course of the 2013 marketing year would still result in a significant increase in government holdings. In order to supply projected mill use of 35.6 million bales, China would import 9.0 million bales. Under this scenario, total imports for the 2013 marketing year are slightly more than half the import level for the current marketing year.

Should China choose to be a more active seller in the coming year, China's imports could fall to the required WTO quota of 4.1 million bales. Given current U.S market share of China's cotton imports, a 4.9 million bale decline in imports translates into almost 1.7 million fewer bales of U.S. exports. China could also go to the other extreme and choose to sell very little of their reserves. Under that scenario, imports would increase to levels comparable to the current marketing year. Such an outcome is more bullish for U.S. exports in the short term, but the scenario only delays the inevitable outcome of working the cotton reserves back onto the market.

The U.S. cotton industry remains very concerned with the lack of transparency in Chinese cotton policy. What government reserve level constitutes sufficient stocks? Do Chinese officials monitor and report cotton stocks not held in the government reserves? Are Chinese mills bound to any set purchase pattern between domestic cotton and imported cotton? How are decisions on the quantity of import licenses beyond the TRQ to be made? Uncertainty with Chinese policy has the entire cotton world on edge.

Thank you for this opportunity to present the concerns of the U.S. cotton industry.

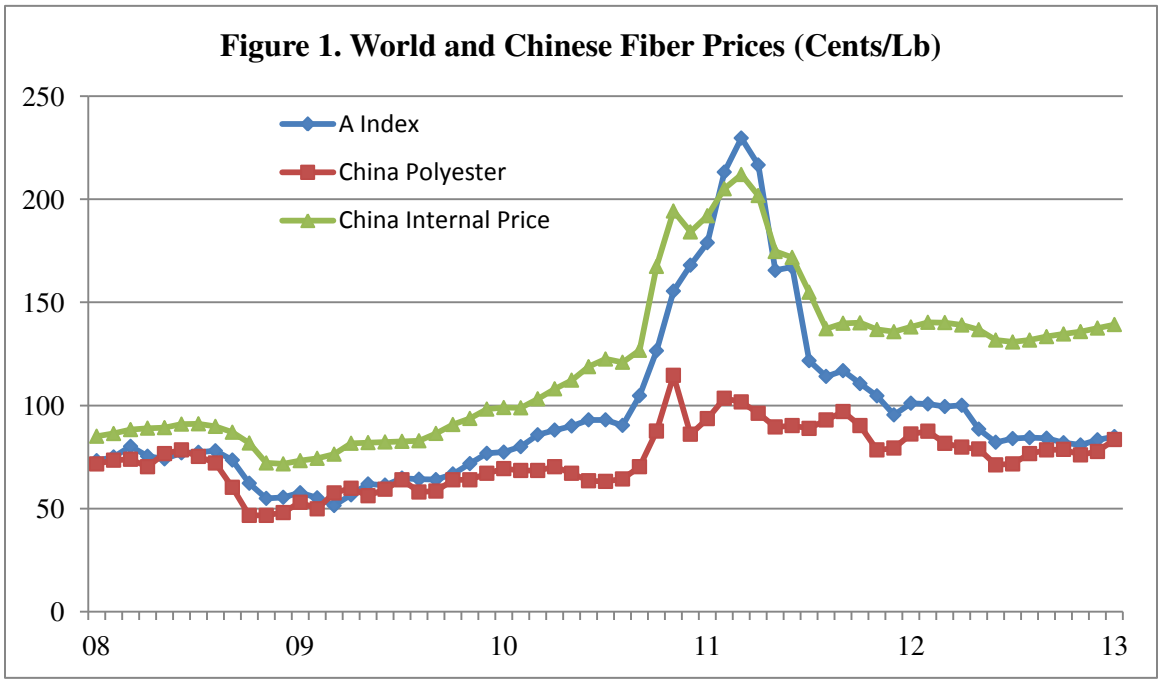
Table 1. China Cotton Supply & Use (Million Bales)

	2007	2008	2009	2010	2011	2012	**2013***
Production	37.0	36.7	32.0	30.5	33.1	35.0	**31.2**
Imports	11.5	7.0	10.9	12.0	24.5	16.5	**9.0**
Mill Use	51.0	44.0	50.0	46.0	38.0	36.0	**35.6**
Exports	0.1	0.1	0.0	0.1	0.1	0.1	**0.1**
Loss	-2.5	-1.3	0.0	0.0	0.0	0.0	**0.0**
Ending Stocks	20.5	21.4	14.2	10.6	30.2	45.6	**50.2**
Stocks/Use	40%	49%	28%	23%	79%	127%	**141%**
**Source: National Cotton Council Economic Outlook*							

Table 2. China Fiber Statistics (Million Bales)

	2007	2008	2009	2010	2011	2012	**2013***
Cotton Mill Use	51.0	44.0	50.0	46.0	38.0	36.0	**35.6**
MMF Mill Use**	106.8	103.0	118.3	130.7	141.6	150.7	**158.3**
Total Mill Use	157.8	147.0	168.3	176.7	179.6	186.7	**193.9**
Cotton's Share	32%	30%	30%	26%	21%	19%	**18%**
Cotton Yarn Imports	2.3	2.7	3.7	3.4	5.0	7.3	**8.0**
**Source: National Cotton Council Economic Outlook; ** PCI Fibers.*							

Figure 1. World and Chinese Fiber Prices (Cents/Lb)



OPENING STATEMENT OF JULIUS SCHAAF
VICE-CHAIRMAN OF THE U.S. GRAINS COUNCIL

MR. SCHAAF: Mr. Chairman and members of this Commission, thank you for inviting me today.

I'm here to represent the U.S. Grains Council. The Council consists of producer organizations and over 100 farm organizations and agribusinesses concerned about the international sales and marketing of corn, sorghum, barley and their coproducts. We are a cooperator with the USDA through their Market Access Program and Foreign Market Development Program.

We have offices in nine different countries and administer programs in more than 50 countries around the world. We have been working hard in China since 1982 to facilitate the growth and modernization of China's livestock, poultry and dairy sectors. This creates demand for feed grains and ultimately for U.S. exports. I will say that one of our directives for next year is we're going to work on manure management as one of our programs. I know that was important in the discussion.

So from a U.S. corn perspective, China is a brand new market. Until about four years ago, they actually exported corn. We like to think through our promotion of their own domestic livestock industry that we've helped hasten the pace at which they would import and were there.

They want to be self-sufficient. Most countries have that goal in mind. We've all talked about that. We feel like something as fundamental as food trust in global markets has to be learned and earned. So the key thing is for the United States to be a reliable, transparent and predictable supplier with no surprises.

We also have rule of law, which they really like with corn. They can actually write a contract and hold people responsible if they don't get what they paid for. So they really like that around the world.

As we build the confidence level, we hope and expect that Chinese corn exports will grow over time. China's internal demand is growing very rapidly. The USDA predicts China will be the world's largest corn importer ten years from now. When we were talking about the growth of the soybean market, I really see the corn market following that same model. I think once we get a North-South tradeoff in production, we get South America ramped up, which is coming, that they'll feel much more at ease buying corn just like they do soybeans now because they kind of have that offset.

This panel has asked me to discuss value-added products and intellectual property issues. For the corn sector, one of the major value-added products that are going into China right now is distiller dried grains, which is a coproduct of ethanol production. About a third of the kernel comes back as a high-grade protein that's really in high demand in China right now.

Last year, China reasserted itself as the top DDG, distiller dried grains, market in the world. It accounted for 28 percent of our total exports out of the U.S. China was passed by Mexico in 2011--Mexico actually imported more

than China in 2011 due to a temporary slowdown following the filing of antidumping complaint against U.S. DDGs in December of 2010.

That complaint led to a sharp drop in DDG imports to China, and as the case unfolded, over 200 Chinese end-users stepped forward to express their concern about this antidumping case. In the end, after an exhaustive fact-finding process, the complaint was withdrawn last June without any duties being imposed. I think that's a pretty significant thing. Basically the end-user stepped up and said we need this, and the government listened.

As far as we're aware, this is an entirely unprecedented outcome for such a case. And it demonstrates both the growing sophistication of Chinese end-users and a very welcome sensitivity by Chinese authorities to the importance of DDGs and Chinese animal protein.

We anticipate that China will continue to be a strong market for DDGs, and we're also alert to the other possibilities that there could be some other value-added exports that could make their way to China. One of those is possibly ethanol. As we know, China has huge challenges in air quality and pollution in their cities, and ethanol can reduce particulate carbon monoxide and carbon monoxide emissions. It could be a possible, not a complete, solution, but at least part of the solution of cleaning up their air.

So that's a possibility. We don't know, but when you talk about value-added, that's a big thing out of Iowa. I'm not in a position to predict how China will address these challenges, but to make a point on ethanol, as other value-added products, it is China's rapid economic growth that's creating the challenges and driving aggregate demand across all sectors.

China will clearly have growing incentives to turn to international supplies, and it will face some complex choices along the way. For example, China has been the leading producer of all these different commodities, and so they have their own domestic constituencies that they have to answer to in their country. So it's like when we write a farm bill, cotton and corn don't always agree, but we're on the same page. We're all the same people basically, but we have slightly different interests.

So the same thing happens in China when you talk about what part of that industry is going to grow, which part they are going to import, or what they are going to export. It's really complicated and they'll have to figure it out. Whether they grow their own meat or they choose to make ethanol as part of their environmental strategy, to what extent China will prioritize increased corn production at the expense of other acreage, as it modernizes its agriculture, China will have to sort these things out itself.

So I want to close with a word about intellectual property, especially biotechnology. Right now the U.S. Grains Council is working with Brazil and Argentina. We're going to have an alliance with the corn growers associations of those two countries and work on biotech issues, and, hopefully, synchronous approval, harmonization of standards, low-level presence issues, and settle on some of those numbers. We're very excited about this coming up. It's really

driven by producers in those countries that are like-minded, that are adopting modern agriculture, and to promote those modern agricultural techniques around the world that seem to be getting huge pushback at this time.

We are looking very much forward to that collaboration. They are competitors, but in the end game, it's going to help us all to resolve these issues.

In China they're devoting major resources to create its own indigenous biotechnology industry, and so we fully anticipate that China will eventually emerge as a technology provider in this area. As a result, we anticipate that a wide range of related issues, such as regulatory harmonization, event approvals, protocols on low-level presence, intellectual property issues related to biotech, that China and the U.S. will have ongoing opportunities for collaboration. So the potential is enormous. We're just hoping that free trade leads to global food security.

Thank you.

PREPARED STATEMENT OF JULIUS SCHAAF
VICE-CHAIRMAN OF THE U.S. GRAINS COUNCIL

Prepared Statement of Julius Schaaf
Vice Chairman, U.S. Grains Council
April 25, 2013

Testimony before the U.S.-China Economic and Security Review Commission
Hearing on China's Agriculture Policy and U.S. Access to China's Market

Panel IV: Intellectual Property and Value-Added Production

Mr. Chairman and members of the Commission: Thank you for the opportunity to participate in this very timely discussion on the partnership between China and the U.S. agricultural sector.

I have the privilege today of representing the U.S. Grains Council. The Council is comprised of producer organizations and over 100 other farm organizations and agribusinesses concerned with the international sales and marketing of corn, sorghum, and barley and their coproducts. Our mission is to "Develop Markets, Enable Trade, and Improve Lives." We currently have offices in nine countries and maintain programs in more than 50 countries around the world.

From the Council's perspective, today's discussion is familiar ground. This year we began our fourth decade of engagement in China. Since opening our China office in 1982, we have worked hard to build partnerships with China's livestock and grain processing industries, and to become a trusted bridge between them and U.S. farmers and agribusinesses. Our goal has been -- and remains -- to facilitate the growth and modernization of China's agricultural sector.

We are advocates for food security through trade, and for increased food safety and enhanced diets through science and trade. We helped establish one of China's first modern feed mills in 1984, and we have sponsored over 200 seminars and technical visits, both of U.S. experts to China and Chinese experts to the U.S., to provide reliable information on modern animal production, U.S. grain production capacity, grain quality, and market trends.

We continue these technical programs today, but our focus has broadened as China has changed. Rapid economic growth, urbanization, the emergence of massive middle class demand for enhanced diets, and new technologies, including biotechnology, have created new challenges and opportunities. Trade policy issues, including notably biotechnology issues, are of increasing importance. We look forward to a continued partnership with our counterparts in the Chinese feed and livestock industries to ensure that issues are addressed constructively as they arise and that benefits of expanded trade are shared by both our nations.

Global Outlook

The Commission has expressed interest in the Council's assessment of the volume and product mix of future U.S. corn exports to China, and their implications for U.S. producers and agribusinesses. From a U.S. corn perspective, China emerged as an importer in 2010. It is a new market with exciting growth potential. We understand this potential; corn farmers commonly grow soybeans as well, and China has long been the world's leading importer of soybeans, predominately from the U.S., Brazil, and Argentina. It is important to begin, however, with a broader context. The bilateral relationship between the U.S. and China is important, but corn and other coarse grains are ultimately commodity products sold into a global market. Both the U.S. and China must respond to larger market constraints. Four factors dominate the discussion.

1. Global Food Demand. The world's population last year passed seven billion. The conventional wisdom among the demographers is that it will rise to something over nine billion before stabilizing sometime around the middle of the century, and perhaps then begin to decline. In addition, the global middle class is continuing to grow rapidly; China alone, by the end of the next decade, will have a middle class population larger than the entire population of the United States. But as important as China is, many other emerging economies also contribute to demand growth. The FAO current baseline projects global agricultural production to increase by 60% by 2050, and another common benchmark for discussion is that the world needs to double food production by 2050 to fully meet the needs and aspirations of newly affluent consumers around the globe.

   Recently a corn exporter, China emerged somewhat suddenly as an importer in 2010. The Council anticipates that China will continue to grow as a structural importer, with demand driven by its rapidly expanding livestock and industrial sectors. USDA currently projects that China's corn imports will reach 19.6 million tons by 2022/23, which would make China the world's largest corn importer by that time. Other estimates range both higher and lower. At 19.6 million tons, however, China's imports would account for only 14 percent of the total projected corn export trade in 2022/23. On a national basis, both Mexico (16.9 million tons) and Japan (15.9 million tons) are projected to trail China only narrowly as top importers. As U.S. producers and agribusinesses, therefore, we at the U.S. Grains Council are optimistic about China's growing demand potential, but we are focused on a broader global picture.

   Whatever China's import demand may be, the Council anticipates that China, like other major importers, will be focused on price, quality, reliability, and food security. We expect also that China's commitment to food security will include a desire to diversify supply, a lesson driven home by the 2012 drought and short U.S. crop.

   We expect that the U.S. will remain the world's largest corn exporter for the foreseeable future; USDA projects the U.S. with a 46 percent export market share in 2022/23, more than Argentina, Brazil, and Ukraine combined. Despite this export dominance, however, we certainly do not view China or any other major importer as a captive market. We will have to compete for every sale in a global market in which major importers view diversified sourcing as an essential part of their food safety net.

2. Competition. An old saying among farmers is that the cure for high prices is high prices. Recent higher price levels have incentivized investment and increased production of corn in many countries. While the United States is likely to remain the global corn export leader, we will have a smaller share of a bigger pie, as Brazil, Argentina, Ukraine, and others are increasing production for export. USDA currently projects that U.S. corn exports will reach a record high of approximately 64 million tons by 2022/23, but the 46 percent global market share projected for that year is well below the 65 percent average U.S. share of the 1990-2010 period.

   The good news is that the pie is getting bigger. The United States is the world's leading agricultural exporter, but we cannot feed the world alone. Competitors are winning market share, and to feed a world of nine billion, it is important that they too continue to increase production. The world needs all of us. China itself is the world's second largest corn producer, and it too is committed to increasing its own yields. The growth of China's corn imports will of course be influenced by the rate at which China is able to increase domestic production, and this involves many complex decisions that China will make in its own strategic best interest; the USDA projection is merely a best guess.

   The U.S-China bilateral relationship is therefore important, as China is expected to account for 40 percent of the increase in global corn imports over the next decade, but it is also important to remember that 60 percent of the total increase will be absorbed by other buyers. In a global commodity market, whether consumer A, B, or C purchases from producer X, Y, and Z is a secondary question. Over the next several decades, the world will need all producers to step up to meet aggregate demand. It is essential that we continue working to remove trade barriers and move the global agricultural trading system towards more transparent, predictable, enforceable rules-based standards.

3. Food Security Through Trade. Most countries have historically defined food security as self-sufficiency. While outright starvation today is mostly the result of armed conflicts that obstruct the delivery of aid, much of the world continues to live with food insecurity, and even in countries that have made great recent progress, food insecurity is often still a living memory. Developing systems of trust and confidence in the reliability and transparency of markets is a major challenge and a precondition of export expansion.

4. Technology. Finally, it is clear that the world cannot meet the dietary aspirations of the rising global middle class without significant and continuing increases in yield. This will require major new investment in both production technology and better genetics. These issues are not merely technical; modernization of agriculture is likely to involve major demographic, social, economic, and political challenges as well, as countries transition from predominately rural to predominately urban populations. Countries will set their own courses and proceed at their own pace. From a U.S. trade perspective, inconsistent, dilatory, and unpredictable regulation of biotech event approvals is a particular concern. China is one of many countries in which this issue is a significant complication.

Looking forward, the growth of aggregate demand presents a remarkable opportunity for producers and agribusinesses not only in the U.S., but around the world. It is difficult, however, to predict with any certainty how the bilateral balance with China will evolve with regard to any particular commodity, whether corn, corn coproducts, or other coarse grains.

Focus on China

This uncertainty is true of other trading partners as well, but it is perhaps especially pertinent to China. China's agricultural sector is balanced, diversified, and creative. China is the world's leading producer of wheat, rice, pork, vegetables, seafood, potatoes, cotton and much else; the second leading producer of corn and poultry; and the number three producer of beef, citrus, sugar, and milk. At the policy level, it is committed to food self sufficiency, particularly in grains, and has prioritized corn as an area of investment and growth. While we anticipate that the growth of internal demand will grow more rapidly than domestic production and thus lead to increased Chinese imports of feed grains and finished products in the future, China has considerable flexibility in charting its course.

U.S. Agricultural Production: "One Stop Shopping"

The U.S. has a unique position in global agricultural trade. The size, breadth, and flexibility of the U.S. agricultural production base gives us an unmatched capacity across multiple sectors and across the value chain. With regard to China, this gives us the capability to mirror China's evolving demand pattern and to supply needs at virtually any point in the value chain.

U.S. corn exports are a case in point. The current marketing year is an anomaly because of the drought, but from 2001 through 2012, U.S. total annual exports of unprocessed corn averaged about 1.8 billion bushels, declining slightly at the end of the period, while exports of processed corn as DDGS, meat and dairy products, ethanol, and food products more than doubled.

China is able to access this product stream at any point. China will make its value chain decisions based on its own perceptions of strategic interest. A key objective for the U.S., therefore, is to remain a reliable supplier across the value chain, so that we are able to serve our customers' needs as our customers themselves define them.

As a policy objective, China has traditionally set a goal of 95 percent self-sufficiency in corn. Its emergence as a structural importer is a relatively new development. The U.S. Grains Council recognizes that this is a matter of great sensitivity in China. It is important to build China's confidence in the reliability and capacity of U.S. as a long-term supplier, and in the global corn production system as a whole. China's standards of self-sufficiency may evolve over time, but that is a choice for China to make.

Intellectual Property/Biotechnology

Among the most important factors affecting the near term evolution of U.S. exports of corn is the regulatory treatment of biotechnology. This is an issue in many regions, including but certainly not limited to China. Agricultural biotechnology has transformed the ability of farmers to achieve higher yields to meet the demands of the growing population and middle class in emerging global markets. As the importance of biotech crops continues to increase globally, potential disruptions due to inconsistent and sometimes unpredictable national treatment have become a recurring concern. With regard to China, the asynchronous approval process for biotech events is of particular importance.

The U.S. Grains Council has developed a continuing dialogue with the Chinese government and private sector to work cooperatively towards a more synchronous approval process. We also support the government-to-government efforts of the U.S.-China Biotechnology Working Group in this area. In addition, the Council is working with counterpart farmer organizations in Brazil and Argentina to develop common strategies for communicating the benefits of modern farming practices, including agricultural biotechnology, in meeting the expected future global demand for feed and food products.

We cannot prejudge the outcome of these discussions. It is important to note, however, that China is committed to developing its own indigenous biotechnology industry. It clearly recognizes the importance of this technology to boost yields and modernize the agricultural sector. As China emerges as a technology provider in this area, we can anticipate a growing commonality of interest on issues related to the protection of intellectual property and regulatory harmonization. This will continue to be a major trade policy focus for the Council.

Value Added Production

From a U.S. economic standpoint, it would be advantageous to capture as much value added production as possible; from a U.S.-centric perspective, in a perfect world all corn exports would be value-added. But that decision is not ours to make in isolation. Food is a strategic commodity, and we cannot and do not expect major trading partners to entirely vacate significant portions of the value chain. The U.S. Farm Bill is notorious for the difficulty of striking an appropriate balance among different agricultural sectors, and we recognize that these choices are as sensitive in other nations as they are here.

China's potential for ethanol imports, for example, is still highly uncertain. Recent adverse air quality events, especially in Beijing this past winter, have sparked new discussion in China about remedies. Ethanol is important not only as a fuel extender, but also as a fuel additive to reduce carbon monoxide, carbon dioxide, toxic chemicals, and particulate matter in auto emissions. Whether China opts to increase its use of ethanol for air quality reasons remains to be seen; the discussion is in its early stages. China, however, is also a major buyer of U.S. distillers dried grains with solubles (DDGS), a coproduct of ethanol production. Should China elect a pro-ethanol strategy for environmental reasons, it is possible that it would import corn and produce both ethanol and DDGS domestically.

Similarly, China currently opts to import mostly unprocessed corn rather than finished feed. Here again, the Council's view is that the customer is always right. We consult, and will continue to consult, on least cost formulations, and we count as a noteworthy success our participation over the past decade in

popularizing DDGS as a feed additive. But if China finds it advantageous to import raw corn and DDGS to blend with locally available resources, that is its prerogative.

Meat and dairy production have a similar dynamic. While USDA projects that China's swine imports will rise to 1.2 million tons a year by 2022, China still seems committed to producing the bulk of its own meats. Again, the U.S. stands ready to supply shortfalls at any point in the value chain as China's needs evolve, and we recognize that China's standards of self-sufficiency are likely to change as urbanization increases and living standards rise.

Expect the Unexpected: Food 2040

Finally, we must be ready to expect the unexpected.

Last year, the Council in collaboration with USDA's Foreign Agricultural Service (FAS) released *Food 2040*, a study analyzing "*The Future of Food and Agriculture in East Asia*."

Food 2040 is a discussion of possible futures, not a prediction, but it envisions the emergence of China as the largest food market in the world; as a global leader in biotechnology; and as the driver of new systems for ensuring food quality, food safety, and traceability that are likely to affect the global food production system.

Food 2040 projects that by 2040, 65 percent of food expenditures in a predominately urban China will be for foods prepared outside the home. It anticipates that newly affluent Asian consumers may be the early adapters for next-generation foods with enhanced nutritional and health values; that consumer barriers to genetically engineered foods will be significantly reduced; and that the massive emerging markets of East Asia will be characterized by a very high degree of product differentiation and highly targeted marketing to sophisticated, health conscious consumers utilizing a wide range of new systems for food preparation, storage, and service.

A major implication of *Food 2040* is that over time, the legacy commodity production and distribution system may be forced to change to accommodate these developments. The average U.S. supermarket stocks nearly 40,000 items. The question to consider is this: when the average Chinese consumer -- not just in Shanghai or Harbin or Taiyuan or NanPing, but in countless small towns and villages across China -- begins to expect and demand a comparable range of consumer choice, who will be stocking those shelves?

This observation is not unique to corn. It applies to every agricultural commodity across the board. The United States today is just 5 percent of the world's population. As the developing world rises to middle class affluence, farmers and agribusinesses around the world will find themselves producing increasingly for these new markets abroad.

This is a great opportunity, for commodity and value-added production alike. It is a global opportunity, but with the world's most creative, flexible, and productive agricultural system, the U.S. is well positioned to benefit. Free trade is the path forward.

As the U.S. continues negotiations on the Trans Pacific Partnership and looks towards opening the Transatlantic Trade and Investment Partnership discussions in the near future, it is thus important that the U.S. not waver from our commitment to free trade and that expanded trade in agricultural products -- often among the most difficult sections of any trade negotiation -- be a continuing priority. Whether we sell commodity corn or a finished product, the opportunity is great. Thank you.

PANEL IV QUESTION AND ANSWER

HEARING CO-CHAIR SLANE: I have three questions. Mr. Schaaf, you just returned from China, and they're doubling their dairy cow herds. They can't feed the ones that they have now. How do you see all that playing out for us?

MR. SCHAAF: Well, it's going to be a real opportunity. Whatever way they go in China, if they import the milk or the meat or the cotton, or any of our value-added products, or whether they import the grain, the U.S. has the opportunity to fill all those niches. If China will just be open about what they need, we can develop the industry within the U.S. to meet those demands.

If they want to produce their own milk, we help sponsor a dairy right outside of Beijing that was up and running, the most modern dairy you've ever seen in your life. It was operating in 2008 when this melamine scare went through, and China instantly said that's the model we want. They built a community college right outside of this and brought in dairy technicians to go to school there, work on this dairy, and then go out into the country and start new set-ups like this.

So whatever they decide. If they're going to have dairies, then they're going to need our corn and maybe complete feeds even eventually. I don't know exactly how it's going to go, but the thing that I see is that the U.S. can provide whatever they need. They just need to let us know and be open and transparent about it. We will adjust, and we'll meet those needs.

HEARING CO-CHAIR SLANE: Dr. Glenn, I understand there's resistance to the GM products going into China. Is that a fair statement?

DR. GLENN: I think Julius might be better off to comment on that specifically with respect to grain trade.

MR. SCHAAF: Well, they've been fairly supportive of biotech approvals in China, and just within the last couple of years, right ahead of this leadership change, things really ground to a halt. Actually their form of approval was after it's approved in the U.S. and Japan for export--Japan is kind of the gold standard for the world--then China would basically wait a year and do some calculations and then come up with their own approval. That was just pretty much standard practice for years and years. Well, something happened in the last couple of years. All those approvals just piled up, and no one was signing off on them.

Governor Branstad was just over there from Iowa and talked to the president over there. Hopefully there could be some movement on those, but it is an issue, and we'd like to move to more of a synchronous approval system around the world. It specifically hurts this year. We've got biotech crops that are lot more drought resistant, but they can't really be planted widespread in the corn belt this year because of export restrictions. So they're approved in the U.S. They're approved in Japan, but they are not approved in China, and they're not approved in the EU.

HEARING CO-CHAIR SLANE: So the farmers won't plant them.

MR. SCHAAF: The farmers would plant them. They're approved and we desperately need those drought-tolerant genetics. But the companies are

restricted from selling them because of export restrictions.

HEARING CO-CHAIR SLANE: And Dr. Lange, what would you like to see Congress do to help your situation in the cotton industry?

DR. LANGE: Well, we have several things we believe they could do. But to be honest, Congress and several administrations have not been willing to take on currency manipulation so I don't know that they're going to care much about cotton.

In particular, China is using a non-transparent mechanism for the determination of the allocation of quota above its TRQ, and it should be transparent. It has at times required that the quota that was allocated had to go to what was called the external textile mill. That would be a mill that was going to import, but would then be required to export the entire product that it brought it in the form of textile and apparel exports.

And imports should be accorded national treatment. There shouldn't be a distinction that if you're importing cotton, it has to be cotton that's then put into textile and apparel products that must be exported.

HEARING CO-CHAIR SLANE: So if I understand you, what you would like to see is our government enforcing the WTO Agreement with China in that area?

DR. LANGE: Yes.

HEARING CO-CHAIR SLANE: Thank you.

HEARING CO-CHAIR WESSEL: Commissioner Bartholomew.

COMMISSIONER BARTHOLOMEW: Thank you very much and thank you to all of our witnesses. You know we get to ask questions and learn interesting things. Dr. Glenn, I have to say I think you're the first person I've ever met with a Ph.D. in Ruminant Nutrition.

[Laughter.]

COMMISSIONER BARTHOLOMEW: Did you grow up on a dairy farm?

DR. GLENN: No, I did not.

COMMISSIONER BARTHOLOMEW: Oh, that's an even more interesting avenue to take.

DR. GLENN: I'm a dairy cattleman--

HEARING CO-CHAIR WESSEL: Have you ever seen a see-through cow?

[Laughter.]

COMMISSIONER BARTHOLOMEW: I missed something at dinner last night.

DR. GLENN: So you want to talk about the holes in the cows. We can do that after the hearing. Thank you.

[Laughter.]

COMMISSIONER BARTHOLOMEW: So actually, Dr. Glenn, I think my question is first to you, but if the others have some information. You guys, CropLife America, represent--what--90 of the biggest agrochemical? I'm not sure

how you characterize the companies--agrochemical?

DR. GLENN: Yeah. That's a good question. Yes. We represent all the largest agrochemical companies in the United States. Many of them are global. We also represent distributors, formulators, and manufacturers, so that's going down the supply chain from the basics. So it's a very diverse membership, but it represents the whole supply chain.

COMMISSIONER BARTHOLOMEW: With a whole bunch of challenging issues. Do some of your members--do many of your members do R&D in China?

DR. GLENN: Yeah. We have members that are committed in China, either establishing new space and new plants or just with respect to trade or selling products within China. So R&D is a major component of the entire crop protection industry.

COMMISSIONER BARTHOLOMEW: Right. And do you know if any of them had to turn over trade secrets or anything like that in order to be able to establish themselves in China? Because certainly in the manufacturing industry that's happened.

DR. GLENN: So I don't know the answer specifically to that question when you say did they turn over their CBI? Generally we never turn over our confidential business information so I would say that's not likely. If it was, were we infringed upon in that regard, I think that has happened. I cannot give you specific examples.

COMMISSIONER BARTHOLOMEW: And has the Chinese government provided incentives for the companies to establish R&D inside China? Again, in the manufacturing sector, of course, there is a lot of business, science and tech business parks, things like that.

DR. GLENN: So, in answering your question, the incentives are the markets and the bottom line. That is why our companies are emerging over there and even new plants and facilities. I think their commitment also with respect to science-based regulation is a bright light for our industry, and we expect that to come through and be--it should have already been reported out from the government.

So there's a couple moving parts to that, but I don't know about specific incentive programs.

COMMISSIONER BARTHOLOMEW: Yeah, I was just wondering whether there was subsidized building space, subsidized land, tax breaks?

DR. GLENN: Good question.

COMMISSIONER BARTHOLOMEW: Anything like that?

DR. GLENN: I don't know the answer to that.

COMMISSIONER BARTHOLOMEW: Okay. Is there any way of finding out and perhaps getting back to us?

DR. GLENN: Yes, ma'am. Yes, I can definitely get that.

COMMISSIONER BARTHOLOMEW: Okay. Great.

DR. GLENN: Yes.

COMMISSIONER BARTHOLOMEW: And so I just wonder in terms of R&D in either of your sort of sectors, if there's anything that you see going on where U.S. companies are engaging in R&D in China?

MR. SCHAAF: Well, of course, you know we facilitate grain trade so we really don't have R&D as such.

COMMISSIONER BARTHOLOMEW: Right. And Dr. Lange, is the same thing for you?

DR. LANGE: Well, there are genetic trait providers who were doing some joint enterprises in China, but I'm not sure to what extent they're still there. I believe most of them found that their ability to protect their property rights was limited, and they discontinued their efforts.

COMMISSIONER BARTHOLOMEW: And given the challenges of cyber, cyber-theft of intellectual property, I just find myself wondering, is it that much worse or that much more risky to be on the ground in China than it is to be doing the R&D here and trying to protect it? I'm just honestly curious about that.

DR. GLENN: Well, I'll just take a stab at that, but I don't know a specific answer. What I have heard is the cybersecurity issue is one where the country is famous for monitoring a lot of our information, but they're not stealing it outright. So that's just a general comment that I have heard.

COMMISSIONER BARTHOLOMEW: They're sort of monitoring it but not?

DR. GLENN: Not necessarily stealing it or destroying it. Destroying it, I guess, would be a good way to put it.

COMMISSIONER BARTHOLOMEW: Right.

DR. GLENN: With respect to our own industry, I can't speak to cyber monitoring specifically. We have enough boots on the ground issues with respect to intellectual property.

COMMISSIONER BARTHOLOMEW: Yeah.

DR. GLENN: Counterfeiting.

COMMISSIONER BARTHOLOMEW: I would suspect that probably all of you are targets in one way or another.

DR. GLENN: Yes.

COMMISSIONER BARTHOLOMEW: You're in interesting sectors. So I think that's all my questions.

HEARING CO-CHAIR WESSEL: Commissioner Tobin.

COMMISSIONER TOBIN: Thank you, Mr. Chair.

Dr. Glenn, you mentioned in your testimonyareas to focus on in terms of IPR protection and you said enforcement in China should continue to be addressed as a priority matter by officials at all levels of the U.S. and Chinese government.

My question is how would you suggest within your industry that we track this, and at what organizational level, should it be tracked? Is it tracked on crop protection or is there something broader that these IPR issues can be monitored over time, versus a list of this is the issue this year and that news being

about that moment in time only? Is there anything systematic, capturing trends, going on that's visible?

DR. GLENN: That's an excellent question. Thank you very much. With regard to IPR protection, one of the things that we feel is very much a positive is this new regulation that's about to come out. It drives not only to the science- based risk assessment model required to register a pesticide, but also includes specific governmental enforcement steps which drive to the criminality of what might be happening with regard to counterfeiting.

So to us just having strong aspects to this new act which is about to come out on fake products is just an important part of an enhanced criminal investigation and those sorts of things.

COMMISSIONER TOBIN: And a new act put out by whom?

DR. GLENN: This is originating from ICAMA in the Ministry of Agriculture, and we generally refer to this as their "Chinese Pesticide Regulations Act," which is about to occur. So we have seen that and worked for four years with them with regard to that.

The other thing is with respect to the central government, you asked how we can protect and suggestions to track. In February they came out with this headline, "China to Crack Down on Fake Agricultural Material." So what are they going to do? They're launching several aspects that seem reasonable to be carried out by nine governmental departments trying to safeguard farmers' rights and securing grain production.

It's a campaign that in 2012 they admit they confiscated 33,000 tons of fake or substandard agricultural production materials, but it drives down to the provincial level of enforcing some of these things. So that's a way to track.

We also feel, going back to my comment on holistic programs, that ICAMA could adopt tracking programs that are random market inspections for manufacturing sites, warehouses and distribution channels. These are capturing the illicit chemical when it's already in the bag, but at least it's not starting out with the original characteristics of that chemical. Maybe at the regulatory level.

But boots on the ground, more inspections, support and adoption of best practices with warehousing and so forth, conduct additional communication and education programs. Those things would help us track, we hope, some of these illicit activities.

COMMISSIONER TOBIN: And the Ministry will be doing this, and is it a black box that you cannot see, but it's seen only in China?

DR. GLENN: That's a good question.

COMMISSIONER TOBIN: Because having worked at Hewlett Packard and when you've been involved with a quality function, you really have to have the data out there to be able to see, to monitor changing patterns, so you can compare year after year.

DR. GLENN: Yes.

COMMISSIONER TOBIN: So it sounds like they're doing something, but you don't know.

DR. GLENN: Yes, I take your point. I don't know exactly how the government proceeds to obtain these 33,000 tons of illegal pesticides. I don't know exactly what steps they're taking. I'm happy that they found those in 2012, and what we do know is that with the central government this is a priority at least.

COMMISSIONER TOBIN: Okay.

DR. GLENN: And we have to assume some of the best practices to actually identify these would be utilized, but it's all open for question. We don't have all those details. So thank you.

COMMISSIONER TOBIN: Do either of the others of you have anything to say on that? On tracking of data on issues? No?

MR. SCHAAF: Just that, on biotech approvals, it's trying to get some regulation around that and harmonization on that. That's going to be tough moving forward, but because they have their own industry that's coming on, they're going to want to possibly have things coming this direction. So it's in their best interest to figure out some of these things like Barbara is working on, and that the grain industry is working on.

COMMISSIONER TOBIN: Thank you.

HEARING CO-CHAIR WESSEL: Commissioner Shea.

VICE CHAIRMAN SHEA: Thank you. Thank you for being here. Enjoyed your testimony.

I guess I have three quick questions--for Dr. Glenn first. You talked about illegal crop protection products being sold counterfeit in Shanghai. Have you ever seen any of those products here in the United States?

DR. GLENN: Excellent question. We don't have the same counterfeiting pesticide problem in the United States.

VICE CHAIRMAN SHEA: No, I mean have you--

DR. GLENN: Have I ever seen any?

VICE CHAIRMAN SHEA: Have you seen counterfeit Chinese crop protection products being used in the United States?

DR. GLENN: No, not that we are aware of, no.

VICE CHAIRMAN SHEA: Are they imported into the United States?

DR. GLENN: They might be used in China, and the products might come to the United States.

VICE CHAIRMAN SHEA: Okay. Dr. Lange, just a quick question. Is there a difference between U.S. cotton and Chinese cotton? I mean is there different properties, different qualities?

DR. LANGE: There are quality differences that arise in cotton, but fundamentally it's exactly the same genus and species planted in China that's planted here.

VICE CHAIRMAN SHEA: Okay. And thank you.

Dr. Schaaf, you mentioned that your organization is potentially doing some cooperative work with the Chinese on manure--yes, I said the word manure--management to deal with the environmental effects of the livestock waste. And could you expound on that, what you're doing?

MR. SCHAAF: Well, the Grains Council has always worked to modernize the Chinese livestock industry, and so we just feel like that's the next step. We've taught a lot of people to move into confinement situations and help them manage their herds, and we've done work with birth weights and the whole gamut of livestock production. So we've been fairly successful there.

I think if we want to keep moving their livestock industry ahead, maybe manure management is one of the next big issues that they have to learn to deal with. The U.S. has lots of expertise about that and lots of studies. If we can transfer that information to them and help make their livestock industry more sustainable in the future, I think it bodes well for the corn industry in the U.S.

VICE CHAIRMAN SHEA: It sounds like you're just sort of talking about it and doing some baby steps, but it's not sort of a full-blown cooperative effort at this point?

DR. LANGE: Well, as far as the feeding operations, we had a benchmarking program where we gathered data from people that were members of ours, and compiled it, and then put out the averages without putting names to it or anything. Then our members could look at this database, and if they've got nine births and the average is ten or 11 from a sow, then they might come to the Grains Council and say, well, can you help us raise our average? Can you help us fix this feed conversion? Our conversion is not as good as the average.

So I could see something like that happen in manure management about, you know, setting up a database about possible ways to do this, and how it's being handled. Then we can work with our partners that we already have in the feeding industry, and get their interest up and bring technicians over to teach them the proper management and handling and distribution of those things because they are of value. They don't have to be a pollution. They can be very valuable to the production of crops there. So I think we can all gain from that.

VICE CHAIRMAN SHEA: Okay. Thank you very much.

DR. GLENN: May I add?

VICE CHAIRMAN SHEA: Sure.

DR. GLENN: My comment is to add to the comments Julius said about manure being valuable. We've talked about the limitations on yields and arable landmass and in the country. This could advance conservation practices, which might be a way to tweak those yields, as well as advance soil health, organic matter in soils, and we were talking about that at lunch. So I just wanted to throw that in there, too.

They have a lot of challenges, but they need these sort of conservation efforts which would include manure.

VICE CHAIRMAN SHEA: And by more properly managing the manure, you're not only helping the Chinese environment, but you're also upgrading the livestock there or upgrading the management of the livestock which provides an opportunity for corn growers in the United States? Is that how the U.S. benefits? I mean I'm trying to find--

MR. SCHAAF: Yeah. It makes their livestock industry more

sustainable and possibly allows it to expand to use more U.S. corn. Sometimes, you know, it's hard to just go knock on the door and say buy some corn. Sometimes you got to develop the demand.

VICE CHAIRMAN SHEA: You got to have a hook; right?

MR. SCHAAF: You got to let them know they need it, you know.

VICE CHAIRMAN SHEA: Right.

MR. SCHAAF: And it's following our same procedure that we've done for the last 30 years in China, which is to expand the livestock, and so we see this as an extension of that work. Is it going to be the main focus? No, it's still going to be, you know, it's still going to be expanding the livestock over there, but it may help put a better face on it.

VICE CHAIRMAN SHEA: Okay.

DR. GLENN: May I?

VICE CHAIRMAN SHEA: Sure.

DR. GLENN: So with respect to are we helping the livestock, I think it's a great comment because the science of feeding dairy cattle is very sophisticated, and you can reduce nitrogen and phosphorous excretion in the lactating dairy cow by, you know, 30, 40 percent depending on the inputs. How you formulate that ration, and all these best management practices, the Chinese have yet to learn in spite of their relative sophistication.

VICE CHAIRMAN SHEA: I know they have different varieties of corn, but are U.S. corn a different, more sustainable product than Chinese corn?

MR. SCHAAF: Well, I don't want to get into the sustainability, who's more sustainable than anybody else.

VICE CHAIRMAN SHEA: Right. But are there differences between Chinese and U.S. corn?

MR. SCHAAF: They're using hybrids that we used back in the '50s is about where their technology is. Would they be able to adapt our techniques and our biotech hybrids now and improve their yields? Absolutely. And you can do that on a very small scale. You can do that on an acre-and-a-half. So I look for them to be growing the same varieties that we are eventually.

They're already doing that in Argentina and Brazil. I mean Argentina five years ago was trying to grow for the EU market, and so they were trying to use all the non-GMO varieties. The GMO was starting to move into Argentina, and they had their drought a couple of years ago, and their own varieties absolutely burnt up and didn't yield anything. The varieties coming out of the U.S. were 100 times better, and so it didn't take long for the adaption to take place. And it can happen in China.

VICE CHAIRMAN SHEA: And that's good because--I know I'm way over time, but as I understand your argument, by adding a couple of competitors to the global market in corn, you're going to entice the Chinese to look to the global market for corn and not be concerned about having one supplier holding leverage; is that correct?

MR. SCHAAF: Nobody likes to have one supplier. You know, you

like to spread it out. You like to have an offset.

VICE CHAIRMAN SHEA: Okay. Thank you.

HEARING CO-CHAIR WESSEL: Commissioner Talent.

COMMISSIONER TALENT: Thank you, Mr. Chairman.

Dr. Lange, I want to make sure I understand what you--I'm puzzling over what you said a little bit. I'm trying to understand what the Chinese are doing. Now, as I understand what you said, they are buying cotton from producers for their reserves, and they're paying substantially above world market prices; is that correct?

DR. LANGE: That's correct.

COMMISSIONER TALENT: That's correct. And that's actually hurting their mills and moving their mills into manmade fiber instead of cotton; is that correct?

DR. LANGE: They're making the mills pay the same price that they buy the cotton from the growers.

COMMISSIONER TALENT: Okay.

DR. LANGE: So it's a substantially higher price than mills around the world are paying for it.

COMMISSIONER TALENT: Right. And they can't import our cotton because they aren't granting enough TRQs to be able to import our cotton?

DR. LANGE: They don't have a license. Right.

COMMISSIONER TALENT: And so the actual effect of this is going to be to hurt their mills and drive them over to polyester.

DR. LANGE: They've done that already. They've already eliminated 15 million bales of cotton use. They've gone from using 50 million bales down to 35 million bales of cotton a year in the Chinese textile industry.

COMMISSIONER TALENT: What am I missing? Why are they doing that? There's got to be something I'm missing. I mean I know it violates the WTO--

DR. LANGE: My sense of this is, and the Chinese, the Chinese got their mill use down to about 35 million bales. They've been growing now on average for the last five years about 31 million bales. The TRQ is 4.1 million bales. My sense is that the Chinese are looking at it from the standpoint of we can be self-sufficient in our mills and meet our TRQ requirement, and we're done.

COMMISSIONER TALENT: Right. So therefore they don't really want their mills to be using any more cotton because then they won't be self-sufficient anymore?

DR. LANGE: Their stated five-year plan that they came out with back in February or March was no growth in their textile use of cotton. Continue it at 35 million bales. So I have to presume from that they're looking at a steady state of meeting domestic production at about 31 meeting their TRQ, and they can say we've met all our requirements.

COMMISSIONER TALENT: Okay. And to follow up on an earlier question, what you would like is for our government to enforce their obligations

under the WTO, which was--

DR. LANGE: Yes.

COMMISSIONER TALENT: --not to do any of this. I get it. Okay. Thank you.

HEARING CO-CHAIR WESSEL: They're also though, just as follow-up, shifting some production to Vietnam, and there are Chinese mills using, producing, Chinese-owned mills producing in Vietnam. They are also producing in other places--Mauritius, Jordan, elsewhere--correct?

DR. LANGE: Well, part of what they've done is they do not put a duty on yarn imports so they've increased their yarn imports instead of buying raw cotton. But, their textile industry has moved into Vietnam, Indonesia, Mauritius.

HEARING CO-CHAIR WESSEL: Right.

DR. LANGE: They export fabric, and then they finish the cut and sew in those countries.

HEARING CO-CHAIR WESSEL: So when China first joined the WTO, there was this view that don't worry, it's toys and textiles. They've decided that toys and textiles isn't their future either, and they're going to disperse the industry in another way. They're going to go textiles, they're going to the fabrics, the yarn, shift that to mills around, the sewing operations, factories, Bangladesh, anywhere else, as they move up the value chain.

DR. LANGE: Right. One of the things that has always been sort of the Achilles' heel of the textile industry is the needle follows the low wage, and the cut and sew, that labor-intensive part, is always chasing the next low wage area. In early 2000, that was China. It's now moving to other places as you know.

HEARING CO-CHAIR WESSEL: So China is capitalizing, as everyone else. They're going to follow the needle as well.

DR. LANGE: Right.

HEARING CO-CHAIR WESSEL: Okay. Dr. Glenn, a couple of questions for you, and some of it you've answered, but I want to make sure I understand. Are all of your companies U.S. based? You're CropLife America. You don't have foreign, you know, German or other companies?

DR. GLENN: No.

HEARING CO-CHAIR WESSEL: Or are you a global organization?

DR. GLENN: We have global--

HEARING CO-CHAIR WESSEL: You do. Okay.

DR. GLENN: --companies such as BASF and Syngenta.

HEARING CO-CHAIR WESSEL: Are there any Chinese companies in your organization?

DR. GLENN: No.

HEARING CO-CHAIR WESSEL: Okay. Are your companies coproducing in China? I have to assume a lot of your product is pretty heavy. A lot of it is water.

DR. GLENN: It's water, yeah.

HEARING CO-CHAIR WESSEL: Yeah.

DR. GLENN: They are, and there are recent initiatives, flat-out strategic initiatives, to get into that market. The companies are over there on the ground and establishing new plants I referred to earlier. Now, it's not a whole lot of them but a few.

HEARING CO-CHAIR WESSEL: Are there products which China allows that we no longer do? I'd say the old "Circle of Poison" issues? Are they--have they upgraded? Do they have the same concerns in terms of herbicide, pesticide, and other products that we do?

DR. GLENN: Are you asking if they have products that are registered that we don't?

HEARING CO-CHAIR WESSEL: Correct.

DR. GLENN: That are not registered in the U.S.?

HEARING CO-CHAIR WESSEL: Correct. That we may no longer register.

DR. GLENN: Yes.

HEARING CO-CHAIR WESSEL: They do.

DR. GLENN: Yes.

HEARING CO-CHAIR WESSEL: And is there a NGO movement? Is that a concern? I mean, are those products generally used elsewhere? Have we taken them off because we've moved up the value stream? Are there concerns there?

DR. GLENN: Well, we have a very rigorous process to register pesticides in the United States, and we stand firmly behind that. It's all science-based risk assessment. They're trying to adopt the same framework, which is great. In the space of the illegals and the counterfeiting, though, they have products that are outside of what we might register under that science-based risk assessment, and so how does that happen?

I think it just happens because of the more lax atmosphere for their regulatory process. They do have a regulatory guidance and process they follow from the '90s, but they need to move forward toward this new act which is coming.

HEARING CO-CHAIR WESSEL: So our producers may have some legacy chemicals, if you will, that are being produced there, which we're no longer producing or utilizing here?

DR. GLENN: Specifically, on legacy chemicals, you probably have the list in front of you. I don't have the list in front of me.

HEARING CO-CHAIR WESSEL: I do. I hate to say what comes to mind, but DDT--

DR. GLENN: Legacy is a big one. Yeah.

HEARING CO-CHAIR WESSEL: --I assume that's not one of them, but you know.

DR. GLENN: Right. No. No. I don't know if we aren't harmonized on the bigger legacy chemicals with China. I think we may be. I think it's the other more. They're not niche products, but they're products that they choose to register in China, and they think have impact that we don't have approved here. In

which case, if they're using those products on foods or products that we're importing into the U.S., they have to apply for an import tolerance with respect to having the ability to bring those in. So it's a point of tension.

HEARING CO-CHAIR WESSEL: As it relates to biotech, and you have a somewhat symbiotic relationship with seed companies--

DR. GLENN: Yes, they spray pesticides.

HEARING CO-CHAIR WESSEL: --et cetera, some of them. Is any of that working in China because they're trying to expand their biotech pretty aggressively? Are you doing R&D? I think Carolyn asked some questions about that. Are there cooperative relationships there, and do they have any world-class producers, companies that are involved in this area?

DR. GLENN: It's an excellent question to talk about crop protection in concert with ag biotech because we're at the point in time in the U.S. where the newest traits are coming out, and they're partnered with a particular pesticide.

HEARING CO-CHAIR WESSEL: Right.

DR. GLENN: So this is an emerging pipeline of products combinations that's coming in the U.S. As regards to China, I think they're so less mature on their biotech approval process. You know, they're dealing with several issues. I have a list here. Julius has mentioned them. I'm not sure they have--

HEARING CO-CHAIR WESSEL: Well, they have such things as the old Roundup Ready.

DR. GLENN: Right.

HEARING CO-CHAIR WESSEL: I mean Roundup Ready is--what--25, 30 years old, as I recall.

DR. GLENN: Right. Well, they're certainly using those traits, but with respect to this new, the advent of this intersection between the technologies, I don't think they're quite as strategic in thinking about it.

They need to get the seed deregulated and used--

HEARING CO-CHAIR WESSEL: Right.

DR. GLENN: --in country before they probably advance to the point we're at now.

HEARING CO-CHAIR WESSEL: Okay. Mr. Schaaf, quickly on some other products, oats, anything else? Are there other niche markets for products? You know we do barley, all those kind of things.

MR. SCHAAF: Well, we represent sorghum and barley, and most of the barley imports in that part of the world come from Australia. We just have really a tough time getting those.

HEARING CO-CHAIR WESSEL: Malt. I mean all of that. There's just not much of a market?

MR. SCHAAF: There's just not a huge market over there for that, and most of the barley is marketed directly before it's even planted here in the U.S. to our own domestic users and quite a bit down into Mexico and Central America. So there's very little that goes that way, and if it is, it's probably feed barley that just happened to hit a price point that somebody picked it up and shipped it. But

there's very little of that.

Last year there was some because of excellent weather in North Dakota and Minnesota. So they had an exceptional barley crop, but normally it's all contracted ahead of time.

HEARING CO-CHAIR WESSEL: So otherwise now it's pretty much odd lot sales.

MR. SCHAAF: Yeah. Sorghum is. There's just not much demand for that either over there from the U.S. on that side. There's quite a bit that goes to Middle East and to the European Union because it's non-biotech. So quite a bit flows that way.

HEARING CO-CHAIR WESSEL: And in terms of wheat, to the extent, do they have winter wheat? Are they running the range of products that we have?

MR. SCHAAF: In China, what I've seen around Beijing, they follow corn after winter wheat. They'll seed their corn. Of course, this is all done by hand. They'll seed their corn into the winter wheat, and it will start growing. And then they harvest the wheat, take all the straw off, and then grow the corn crop after winter wheat. Finally, then they take all the straw off again, and--

HEARING CO-CHAIR WESSEL: All by hand, though?

MR. SCHAAF: Yeah, all by hand, and I just can't imagine trying to grow corn after winter wheat, what your potential is, but it's not good.

HEARING CO-CHAIR WESSEL: Glad I'm not working there.

MR. SCHAAF: But that's not everywhere.

HEARING CO-CHAIR WESSEL: No, no, I--

MR. SCHAAF: That's in that particular area.

HEARING CO-CHAIR WESSEL: Understood.

MR. SCHAAF: In northern China, there are some large farms put together, but it's all the issues we talked about today, land reform, land use, where do those people go if they are displaced. There's not going to be a fast answer--their agriculture. But they can adapt to biotechnology and biotech seeds. That's something you can do on those small acreages, and they can see a marked improvement in their own production by adoption of that. But they've got to provide some kind of intellectual property protection for that to happen till they get their own.

HEARING CO-CHAIR WESSEL: Mr. Lange, what's happened to your membership over the years, and I guess part of the question is was your organization supportive or in opposition to PNTR back in 2001?

DR. LANGE: We took a position in favor of it.

HEARING CO-CHAIR WESSEL: In favor. And what's happened to the membership since?

DR. LANGE: The membership in the manufacturing side has declined substantially. We lost about 500,000 jobs in the textile area between 2001 and 2006. What happened was the elimination of the Multi-Fiber Agreement was backloaded so that the quota phaseout really began in 2001 and was to be completed by 2005.

The U.S. textile industry sought some safeguard protection in 2005 and 2006, and was awarded it for two years. Then it was no longer provided, and so by the end of 2006, you had mostly seen the loss of the U.S. textile industry.

HEARING CO-CHAIR WESSEL: Sorry to hear that. Did you have a question?

COMMISSIONER BARTHOLOMEW: I do. Dr. Lange, I'm mystified about this strategic reserve of cotton that the Chinese government has acquired and why, and at the same time that they have this enormous reserve. Why would there be a move into the creation of synthetic fibers? So along with that, is polyester a petrochemical-based fiber?

DR. LANGE: Yes. Polyester is made from a chemical that's derived through the process of creating gasoline.

COMMISSIONER BARTHOLOMEW: So, first, can you explain to me what this reserve is all about? Second, why wouldn't they be using it if instead what they are doing is creating a fiber that I presume has more serious environmental consequences than cotton might have?

DR. LANGE: Part of the problem, I believe, is they've always been very concerned about the fact that cotton production can go up and down as weather affects the crop. In the early 2000s, China also had a serious problem with insect infestation that they overcame by finding some Bt cotton and introduced into their own lines even though it's not theoretically approved.

But that really did go a long way to dealing with their insect problem. They have always been extremely concerned about their ability to keep cotton and their textile mills, and they actually got away a little bit from having a government reserve in the late 2000s because they became confident that they were producing enough cotton.

The problem they ran into was the world--in my charts, I show you a price chart. In 2011, the world went crazy and cotton prices actually went over $2 a pound for a period of time. At that time, some Chinese mills became convinced that they wanted to use cotton but couldn't actually buy it anywhere. They could not get their hands on it.

And that influenced the government then by September of 2011 to undertake an entirely new policy and adopt this guaranteed price and a reserve. The one thing that we don't know, I've never heard it announced anywhere in any Chinese document--we follow cotton documents in China carefully--about what the intended eventual size of this reserve is. If they continue the practice that they've had for the last 24 months, by this time next year, they will have over 60 million bales in reserve when their mills only use 35 million in a year.

So it's a confounding situation for them. The problem that they further face is if they begin to release some cotton from the reserve, they will push world prices down. That effectively increases the cost to them of operating their policy because world prices fall to, say, 70 or 60 cents, they're still guaranteeing their farmers $1.40. That's what they'll have to pay.

COMMISSIONER BARTHOLOMEW: And then meanwhile they're

moving into polyester.

DR. LANGE: Yes.

COMMISSIONER BARTHOLOMEW: I'm baffled.

DR. LANGE: We're very concerned because, again, there has been no pronouncements by anyone in China that we know of that says what the ultimate goal of this reserve is. Then how they'll rationalize managing that reserve once they achieve whatever their target is, we don't know.

COMMISSIONER BARTHOLOMEW: Thank you.

HEARING CO-CHAIR WESSEL: First want to thank Vicki.

HEARING CO-CHAIR SLANE: For putting up with us.

HEARING CO-CHAIR WESSEL: Thank you, all the witnesses, and for the school, and for our able staff who designed the hearing, contacted the witnesses and put together great panels and helped us.

Our next hearing will be back in Washington on May 9. So thank you.

[Whereupon, at 3:41 p.m., the hearing was adjourned.]