“Expanding U.S. Market Access In China’s Evolving Agricultural & Trade Policy Environment”

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Virginia Tech

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USDA-ERS

USDA-NIFA Project Directors’ Meeting,  
August 2, 2017  
Chicago, IL

Funding for this work is provided by USDA-NIFA AFRI Grant Number 2014-67023-21946
Additional Project Team Members

- Francis Tuan (Former USDA-ERS)
- Agapi Somwaru (Former USDA-ERS)
- Funing Zhong & Crystal Jing Zhu (Nanjing Ag. University)
- Mina Hejazi & Wei Zhang (Virginia Tech)
- Jue Zhu (Graduate student-Nanjing Ag. Univ. & Visiting Scholar at VT)
Overall Goal
The overall goal of this project is to gain an understanding of China’s agricultural trade policies, model these policies and promote U.S. market access to China.

Specific Objectives
- Develop and inventory Chinese trade impeding policies to enhance understanding of their impacts on U.S. agribusiness market access in China.
- Enhance existing agricultural sector trade models by incorporating China’s trade restricting policies and conduct policy simulations using models developed and maintained at the USDA-ERS.
- Provide USDA and the private sector with critical information to enable market penetration and expansion in China, based on the above policy information and modeling results.

URL: http://www.infoplease.com/atlas/country/china.html
2017 Student Dissertation/Thesis

    Co-advisors: Marchant/Grant

- “Simulation of Chinese Sorghum Imports from a New Perspective: U.S. and Global Impacts”
Conclusions from Mina Hejazi’s Dissertation

“China’s Evolving Agricultural and Trade Policies -- Impact on U.S. Exports”

- China reduced trade barriers since joining the WTO
- China considers different policies to support farmers’ incomes and to achieve its self-sufficiency goal
- These policies led to excessive stocks and price gaps where domestic prices exceeded international prices
- China adopts target price policy for cotton and soybeans to reduce cotton stockpiles & enhance soybean production.
- China ends the support price policy for corn to reduce stockpiles and the international price gap (March 2016)
- See Choices articles referenced below for more information
Sorghum trade is a thin market and China became the world’s largest sorghum importer. A relatively small change in Chinese sorghum imports can have dramatic effects on the U.S. and world sorghum markets.

Sorghum trade between the U.S. and China may be a “temporary” success story. The U.S. seized the opportunity to gain access to the Chinese sorghum market.
China introduced its corn price support program in 2008; China’s domestic corn prices increased annually beginning in 2011 resulting in high prices; increased domestic production, creation of excessive stockpiles and increased import demand for feed substitutes (sorghum, DDGs, barley).

Beginning in March 2016, China eliminated its corn price support program, which decreased the price of domestic corn and reduced import demand for feed substitutes.

Source: USDA-Foreign Agriculture Service (FAS), Production, Supply and Distribution (PS&D), 2017.
(Note: Data prior to 2016 are actual data and data after 2016 are USDA baseline projections.)
Sorghum Imports for Selected Countries (China, Mexico, Japan)

Historical Data
Projections

Source: USDA-Foreign Agriculture Service (FAS), Production, Supply and Distribution (PS&D), 2017.
(Note: Data prior to 2016 are actual data and data after 2016 are USDA baseline projections.)
Methodology and Modeling System

- The USDA-ERS modeling system is large scale, multi-country (42) & multi-commodity (28) partial equilibrium dynamic simulation model.
- Solves for global prices and trade and individual country models.
- Policy instruments are applied to the China model & solved globally.
- **USDA-ERS China model** was improved based on information from our 2015 China trip and contributed to improved USDA Chief Economist Office 10-Year Baseline Projections.
Conclusions from Wei Zhang’s Thesis

- Chinese corn policy generated a window of opportunity for U.S. sorghum exports in 2013-2017. When China’s corn policy changed (2016), China’s corn price fell **decreasing the demand for sorghum imports**.

- The scenarios showed the **risks of significant decline of both global sorghum price and trade volume** resulting from the change of China’s corn policy.

- The result is a reminder for U.S. sorghum exporters that it is important to **diversify cropping patterns to hedge potential risks**, and it is necessary to seek new sorghum export opportunities worldwide.

- There are positive results as well: **U.S.-Mexico sorghum trade could become a renewed success stories**.

- Wei Zhang’s thesis has been submitted to a journal.
Additional Project Outputs
Theme Overview: U.S. Commodity Markets Respond to Changes in China's Ag Policies

Mary A. Marchant
Next Steps:

❖ Present results at the 2018 China Agricultural Outlook Conference, Beijing, China, April 2018 and visit with Chinese government officials, U.S. agribusinesses, research institutions/universities & U.S. Embassy Foreign Trade office. Visits will contribute to USDA modeling of China & projections.

❖ Proposal submission to the 2018 triennial International Association of Agricultural Economists (IAAE) meetings in Vancouver, Canada, July 2018.
“Expanding US Market Access In China’s Evolving Agricultural & Trade Policy Environment”

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USDA-NIFA Project Directors’ Meeting,  
August 3, 2016 Boston, MA

Funding for this work is provided by USDA-NIFA AFRI Grant Number 2014-67023-21946
Overview

- Growth of China
- The Goal and Objectives
- The Progress of the Grant
- Products
- China’s Evolving Policy
Fast Facts on China

Population: 1.37 billion
Capital: Beijing over 10 million people; Shanghai over 24 million
Area: 3.7 million square miles; 3rd largest
GDP per Capita: U.S. $7,924
Language: Chinese (Mandarin), Cantonese, Other dialects and minority languages
Religion: Taoist, Buddhist, Muslim
Currency: Yuan, also referred to as the Renminbi (RMB)
Life Expectancy: 76
Literacy Percent: 91%

Key Challenge: 11% of global arable land 20% of global population

Sources: China Statistic Bureau; CIA; WHO; World Bank
http://www.infoplease.com/atlas/country/china.html
China GDP (Billion USD)

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Source: The World Bank
China’s Accession to the WTO

SIGNING CEREMONY ON CHINA’S ACCESSION TO THE WTO
11 November 2001, Doha

URL: http://english.qstheory.cn/magazine/201201/201203/t20120331_149087.htm
Importance of China to US Agricultural Exports

Top Five Markets for U.S. Agricultural Exports, 2001-2015

Source. USDA-ERS, PSD 2015
China’s Agricultural Imports by Source Countries

Why U.S. Cares About China and Its Policies

Source: UNCOMTRADE, China’s import data
China’s Main Agricultural Imports From the U.S.

Source: UNCOMTRADE, China’s import data
Project Description and Current Status

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Opportunities

- Exporters to China can do well in niche and specialty markets.
- Specialty markets are less likely to compete with China’s companies. Less risk of food security concerns.
- Food safety concerns in China helps U.S. to export products, e.g., milk powder.
- Rising price of corn and growing stock piles of corn provides opportunities for U.S. exports of feed substitutes in China, e.g., DDGs.
U.S. exports of corn, sorghum and distillers dried grains (DDGs) to China

Source: UNCOMTRADE, China’s import data
Accomplishments Under Goals

- In 2015-16, members of the team travelled to China and Washington DC to interview agribusiness leaders, government officials and academics to determine both barriers to US-China trade and success stories.
- The team discovered the impact of a price wedge between China's domestic and the world price stemming from China's use of agricultural support prices.
Accomplishments Under Goals

- The team published one journal article (see below) and presented preliminary research results at the triennial meeting of International Association of Agricultural Economists and at the Agricultural and Applied Economic Association annual meeting—sponsored by both the Agribusiness Economics & Management/China sections.

- The USDA-ERS China model is being improved to incorporate new policy instruments, e.g., target price.
## Products

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On web: [https://www.ifama.org/resources/Documents/v18ia/Xie-Marchant.pdf](https://www.ifama.org/resources/Documents/v18ia/Xie-Marchant.pdf)

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U.S. Agribusiness Exporters to China: Challenges and Success Stories

Track Section Sponsored by
Agribusiness Economics and Management and China Sections

2016 AAEA Annual Meeting Boston, MA
August 2, 2016

Funding for this work is provided by USDA-NIFA Grant number 2014-67023-21946
Moderator: Francis Tuan

China’s Evolving Agricultural and Trade Policies -- Impact on U.S. Exports
Mina Hejazi, Funing Zhong and Crystal_Jing Zhu

Challenges and Successes by U.S. Agribusiness Exporters to China
Jim Hansen, Francis Tuan and Agapi Somwaru

A Case Study - Supplying China’s Growing Appetite for Poultry
Mary Marchant, Wei Chen and Wei Zhang

Discussant: Funing Zhong
China’s Agricultural Policies
China’s Agricultural and Development Goals

- Food security--sustain 95% self-sufficiency
- Improving farmers’ incomes
China’s Agricultural Domestic and Trade Policies to Achieve Its Goals

- Agricultural subsidies
  - Starting in 2004
- Price support program
  - Starting in 2004
- Temporary reserve programs
  - Starting in 2008
- Tariffs
- Tariff rate quotas
Minimum Purchase Price

- The primary tool encourage production of the targeted crops in major producing regions.
- Under this policy, producers are guaranteed a minimum price for their products.

Source: Gale, 2013 and Updated data from GAIN Reports
The temporary reserve programs were introduced by the Chinese government.

Under this policy, Chinese farmers received a price above the market price for wheat, rice, corn, soybeans, rapeseeds, sugar and pork due to government purchasing.

For cotton, the temporary reserve program started since 2011.
China’s Recent Challenges

- Price gap between China’s domestic and world prices
  - In May 2015, China’s domestic prices are 25%-40% higher than global prices.

- Excessive accumulation of stocks
  - The annual growth rate of domestic grain production is lower than 3%. However, grain stocks increased over 8%.

Source: Gale, 2016

Source: USDA-FAS, Market and Trade Data, PSD
Evolving Policies to Resolve the Challenges

Adopting different policies among major agricultural commodities.

- New target price for cotton in 2015
  - To reduce stock
- New target price for soybeans in 2015
  - To increase production
- Support price policy continued for rice and wheat
- Ended corn support price in 2016
Additional Resources

- Food Security in China-Exploring the Sustainability Changes
- World Bank, 2013
exports/national