Recent Developments in China and its Impacts on US Agriculture

Wendong Zhang

Assistant Professor of Economics and Extension Economist

wdzhang@iastate.edu

515-294-2536

2017 Pro-Ag Outlook





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The new Mike Duffy



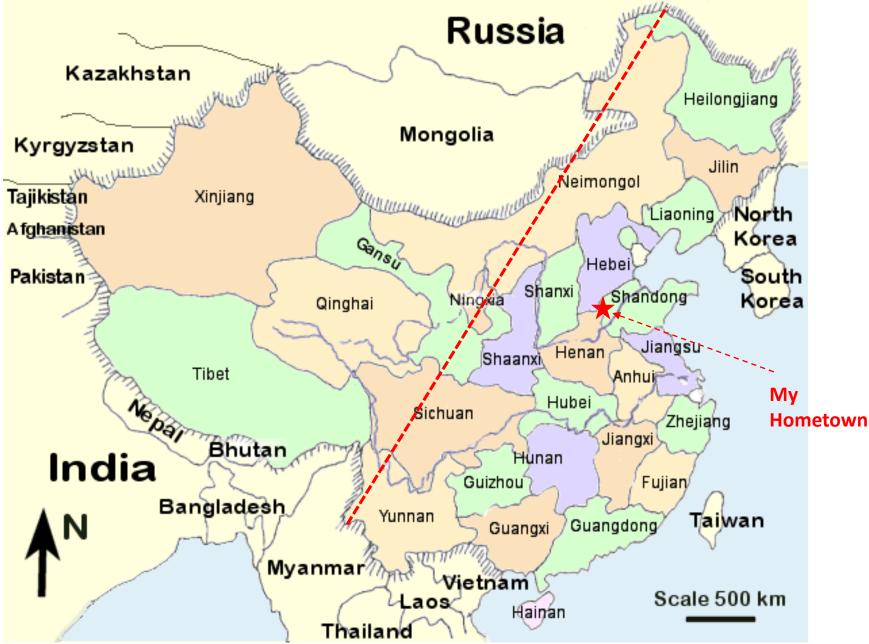


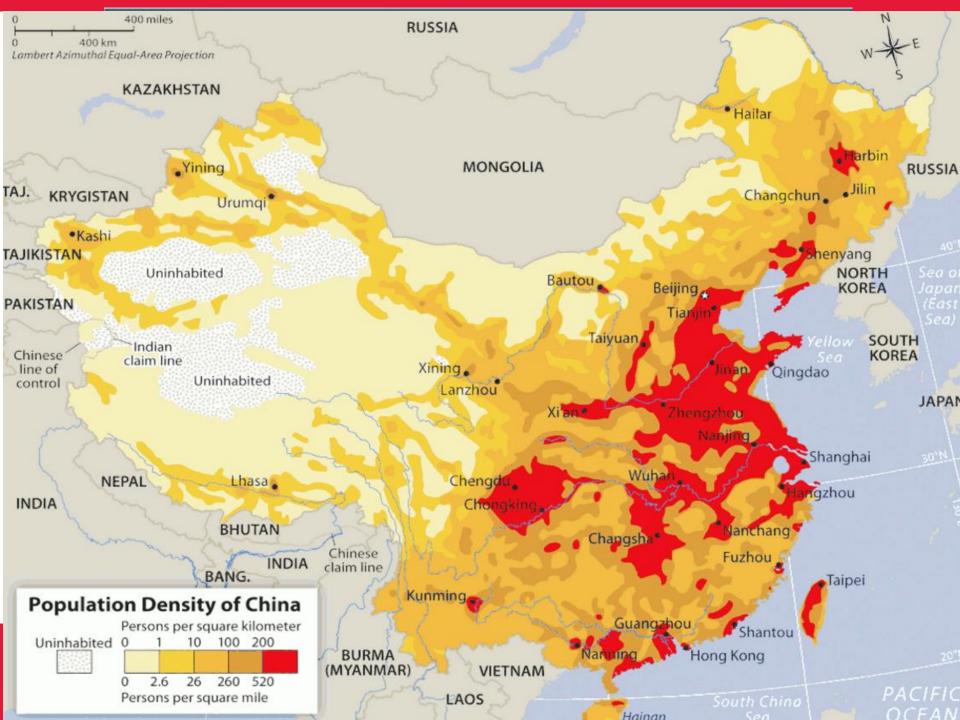
A Quick Introduction: Dr. Wendong Zhang

- Grown up in a rural county in NE China
- Attended college in Shanghai and Hong Kong
- Ph.D. in Ag Econ in 2015 from Ohio State
- 2012 summer intern at USDA-ERS on farm economy and farmland values
- Research and extension interests:
- land value/ownership http://card.iastate.edu/farmland/
- agriculture and the environment
- China Ag: quarterly Ag DM articles



China's Provinces

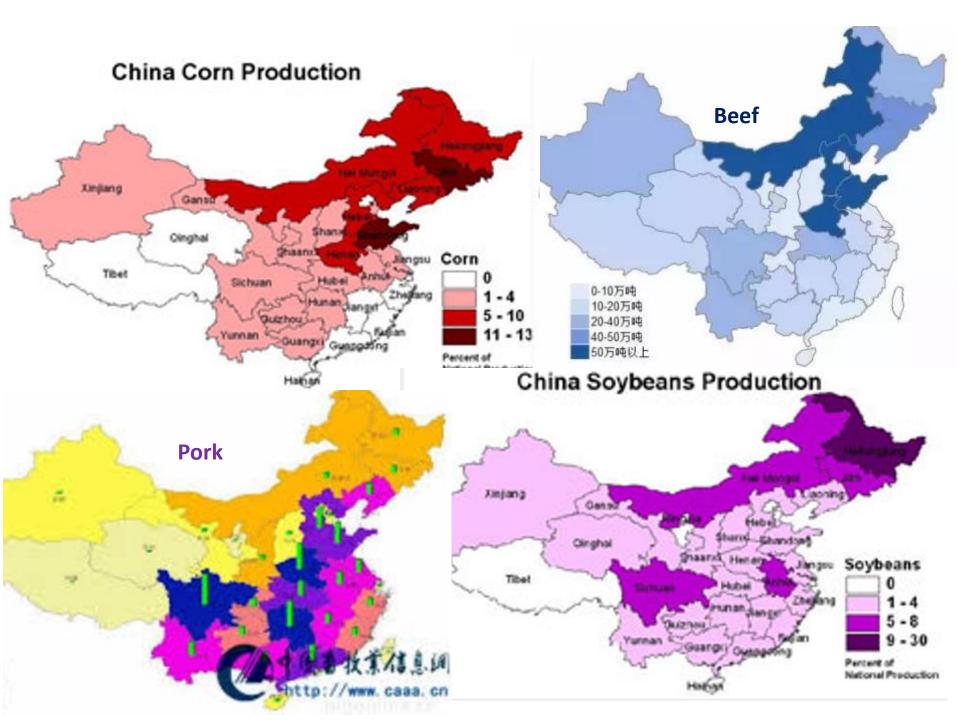




China's demographics – large is beautiful



Note : Millennials are those born in the 1900s & 1990s, Gen 2 . Donnated 2000s Source: BBVA Research, China National Bureau of Statistics



China vs. US

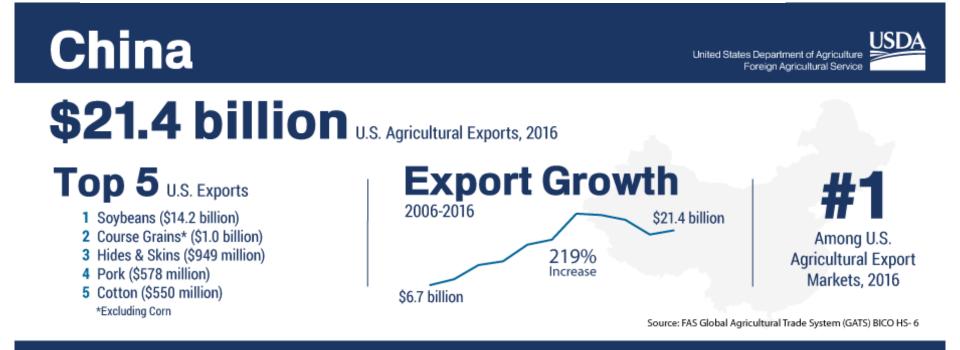
prev	China	US	
Total Population	1350.4 million	318.9 million	
Gross agricultural production	555.2 billion \$	232.4 billion \$	
Share of Agriculture in Total GDP	10.0%	1.3%	
Share of Agriculture in Employment	35.0%	2.0%	

	China	US
Number of Farmers	241.7 million	3.2 million
Number of Farms	200.2 million	2.1 million
Total Farmland Area	406.8 million acres	914.5 million acres
Corn Production Area	89.7 million acres	87.4 million acres
Soybean Production Area	16.9 million acres	76.3 million acres
Wheat Production Area	59.6 million acres	45.3 million acres
Total Size of Vegetable/Herb		
Greenhouses	83.6 million sq.ft.	61.8 million sq.ft
Average Farm Size	2.0 acres	433.6 acres

IOWA STATE UNIVERSITY Zhang 2015 Ag Policy Review Extension and Outreach

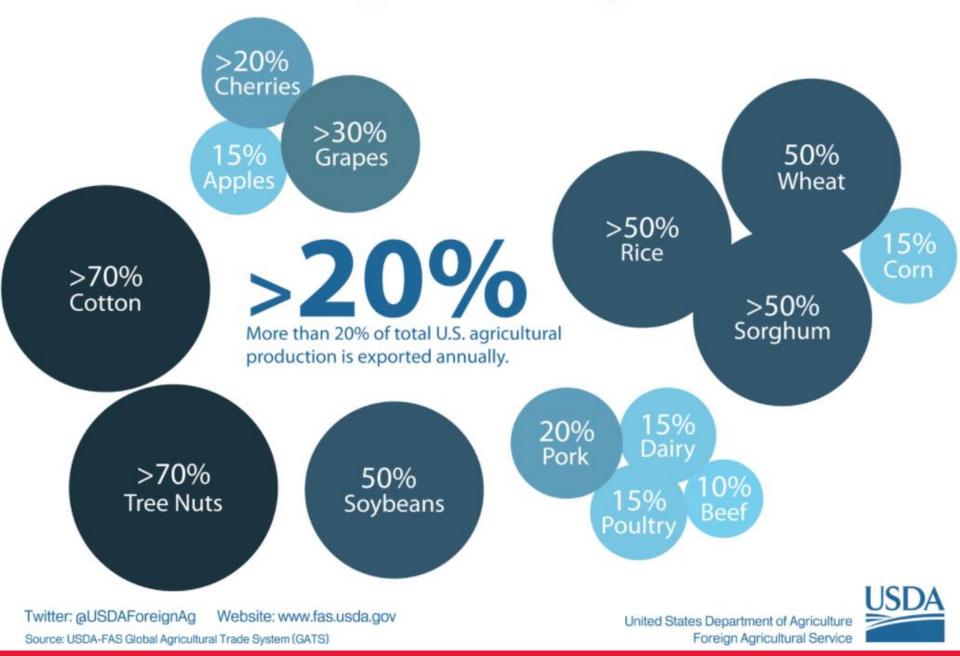




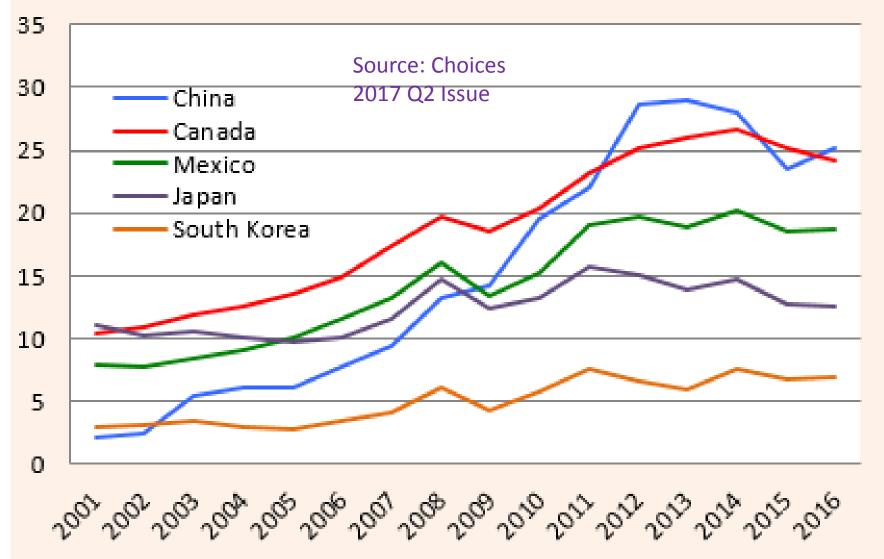




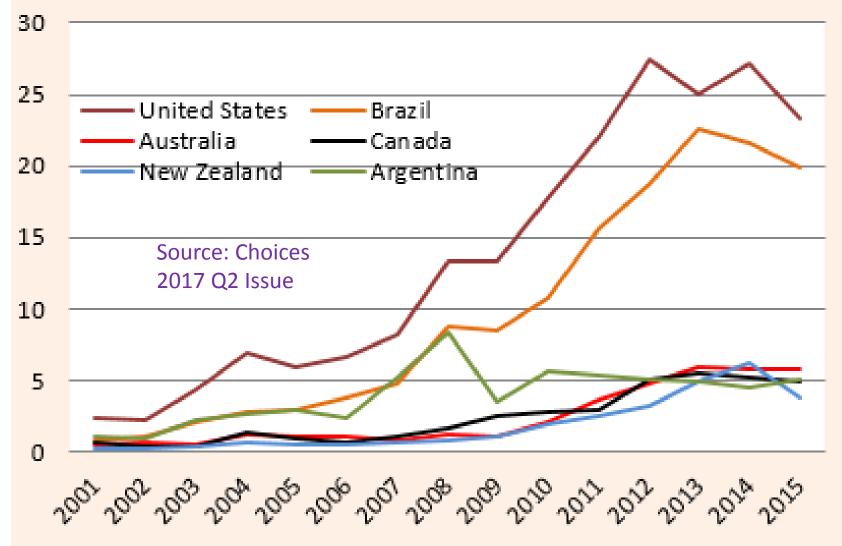
Share of U.S. Agriculture Exported in 2016



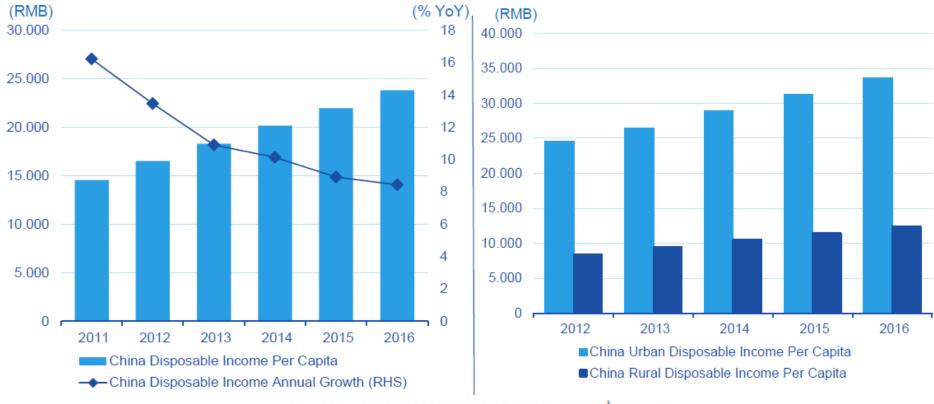
US Ag Exports by Destination Country 2001-2016 (\$ Billion)



China's Ag Imports by Source Country 2001-2015 (\$ Billion)



A steadily increasing disposable income, albeit at a moderating but robust pace, with wide urban-rural gap



CHINA CONSUMPTION TRENDS | 2017

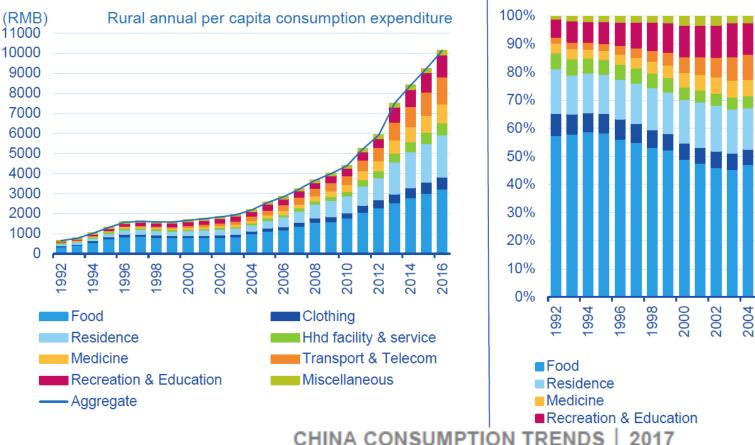
BBV

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RESEARCH



Share of food in rural China's per capita consumption basket is declining, offset by higher value purchases



Rural annual per capita consumption expenditure

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RESEARCH

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2006

2008

Clothing

2010

Hhd facility & service

Transport & Telecom

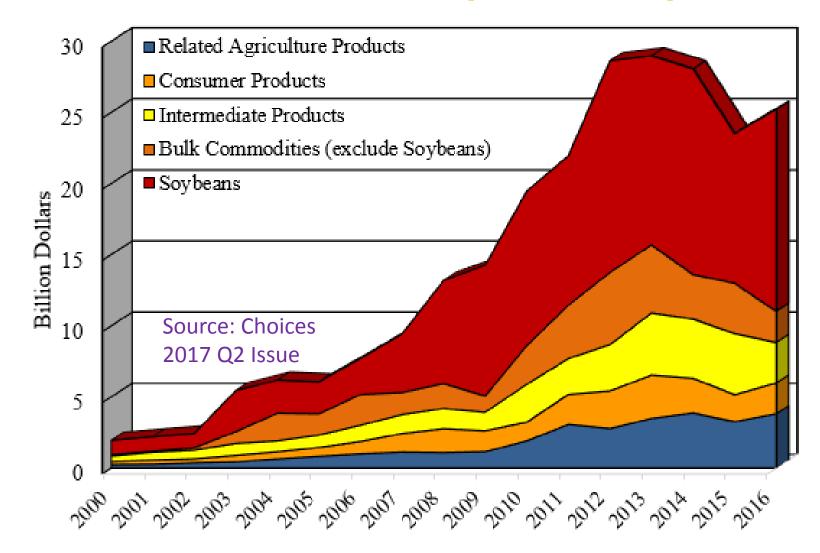
Miscellaneous

2012

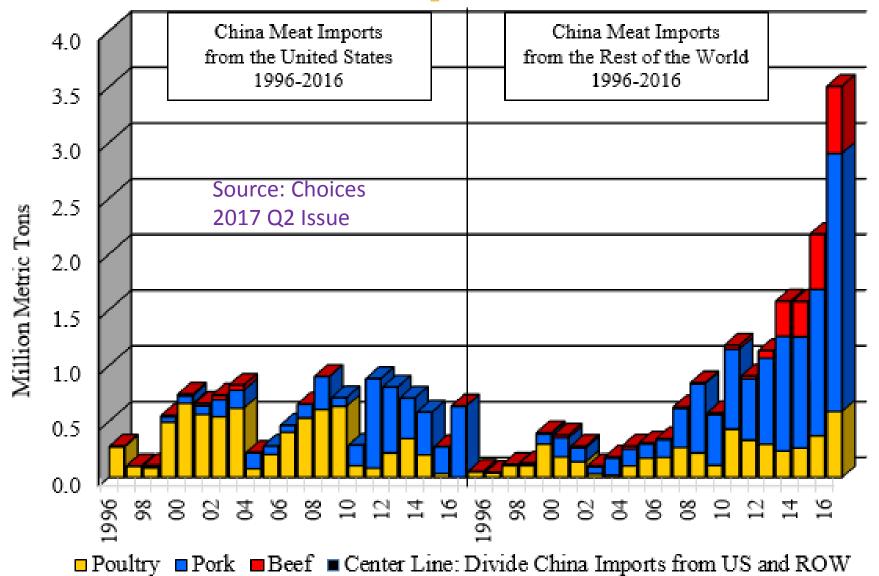
2014

2016

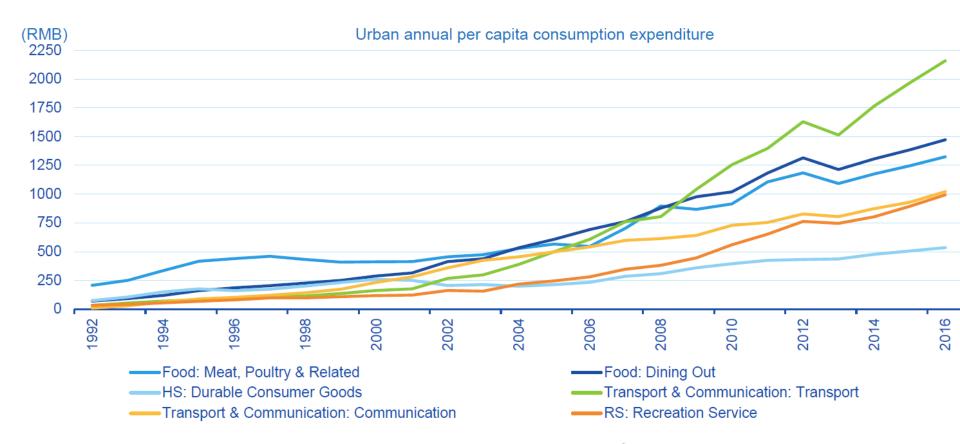
US Ag Exports to China Increased Significantly since China joined WTO in 2001 (\$ Billion)



US Loses Market Share as China Increases Meat Imports from the World



Urban Chinese prefer to travel, stay connected, buy protein rich food, durable goods & recreation



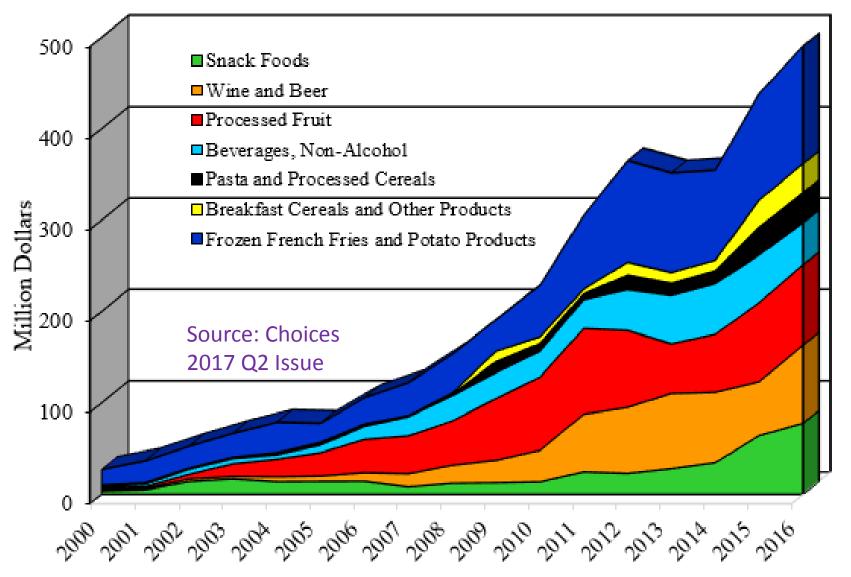
CHINA CONSUMPTION TRENDS | 2017

RESEARCH

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IOWA STATE UNIVERSITY Extension and Outreach Center for Agricultural and Rural Development

Richer households demand more meat and convenience foods



China, U.S. reach trade agreement on beef, poultry and natural gas



Donald J. Trump 🥝 @realDonaldTrump



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China just agreed that the U.S. will be allowed to sell beef, and other major products, into China once again. This is REAL news! 8:20 AM - 12 May 2017

126,239 126,239

Chicago Tribune

The agreement would also ease import restrictions on agricultural goods, including ending China's ban on beef imports that was imposed in 2003 after a case of mad-cow disease. The Bush and Obama administrations have sought for years to get it removed.



In exchange, the U.S. would allow the sale of cooked Chinese poultry — a move Ross said could be done safely. "We do not intend to endanger anybody's health or safety in the U.S.," he said.

The agreement would also streamline the evaluation of pending U.S. biotechnology product applications; pave the way for allowing American-owned suppliers of electronic payment services to begin the licensing processes in China and facilitate the entrance of Chinese banks into the U.S. banking market, among other measures.

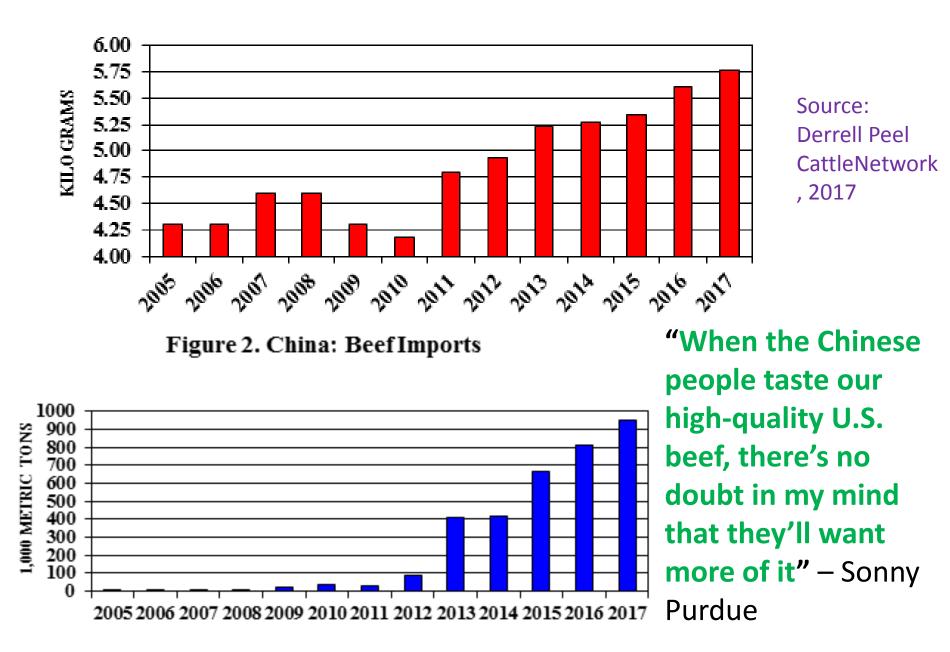


Figure 1. China: Per Capita Beef Consumption

Vol. 21, No. 2

Ag Decision Maker

December 2016



Of maize and markets: China's new corn policy

By Qianrong Wu, economics graduate student, qianrong@iastate.edu; Wendong Zhang, extension economist, wdzhang@iastate.edu



美国农业大州爱荷华州的农畜产品在世界市场上长期占据重要地位,现任州长特里•布兰斯 塔德已被特朗普政府提名为下一届驻华大使。爱荷华州立大学中国留学生对中国玉米产业政 策的一份研究报告获得州农业部长Bill Northey 的推荐转发,芝华特对此深度报告进行了 翻译整理。

玉米与市场:谈中国的新玉米政策

作者: Qianrong Wu Wendong Zhang 翻译:芝华数据 李佳璇



#ENVIRONMENT

SEPTEMBER 12, 2017 / 8:26 PM / 2 MONTHS AGO

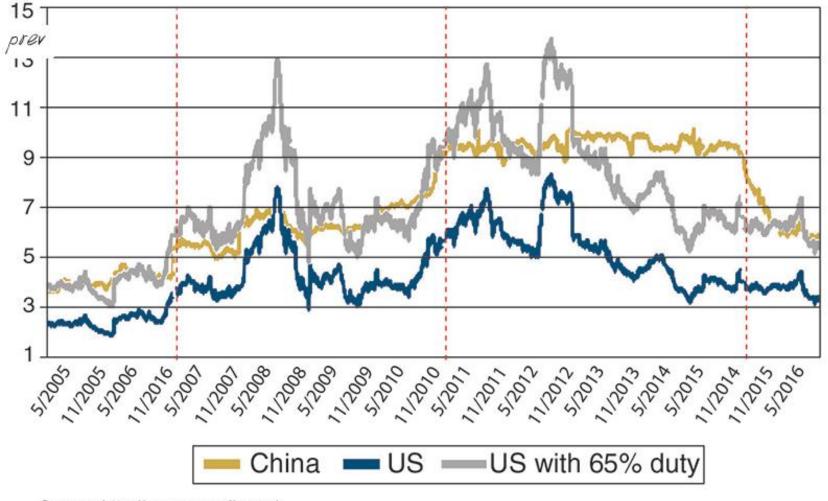
China sets 2020 target for nationwide ethanol use to cut corn stocks



Of Maize and Markets: China's New Corn Policy

Dollars per bushels

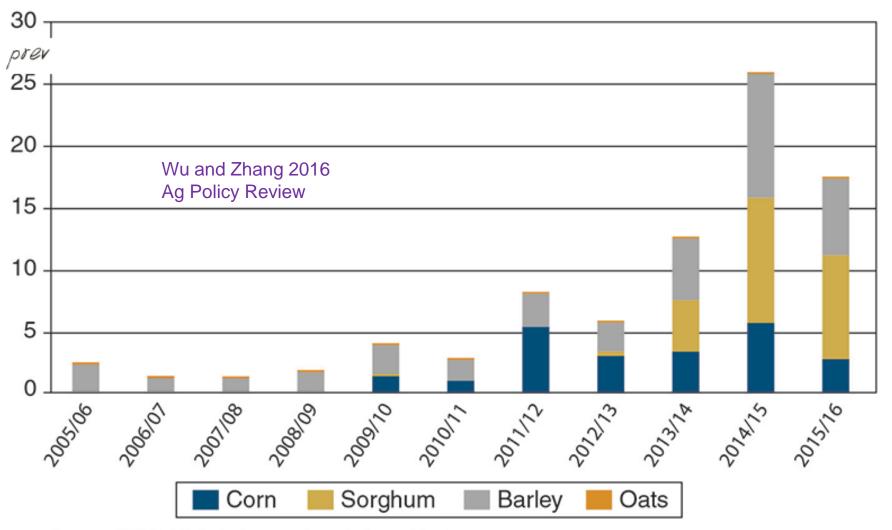
Wu and Zhang 2016 Ag Policy Review



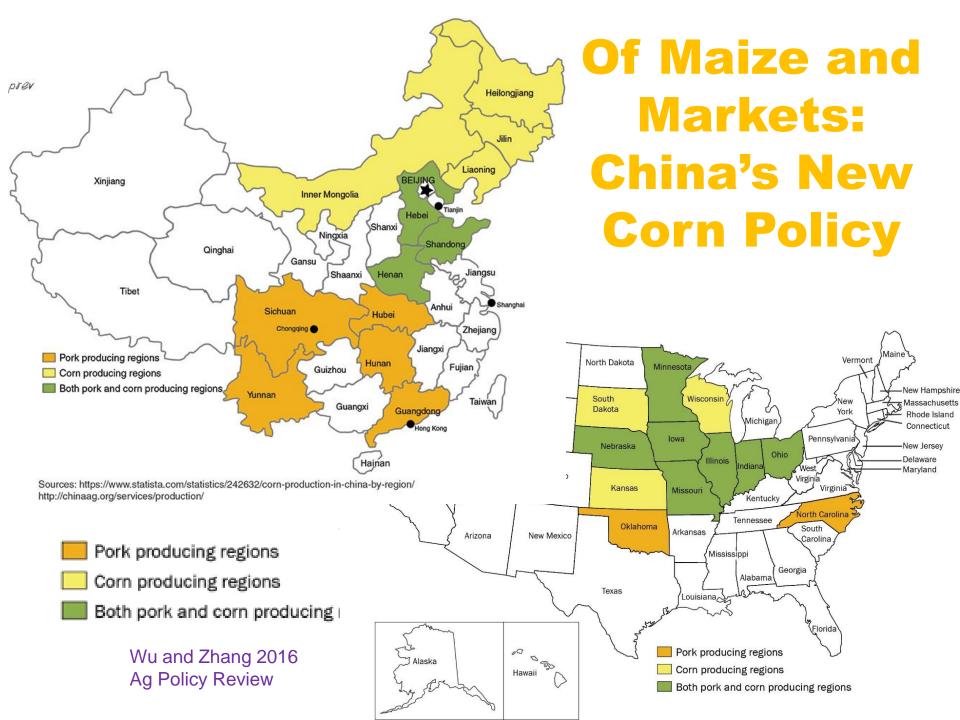
Source: http://www.quandl.com/

Of Maize and Markets: China's New Corn Policy

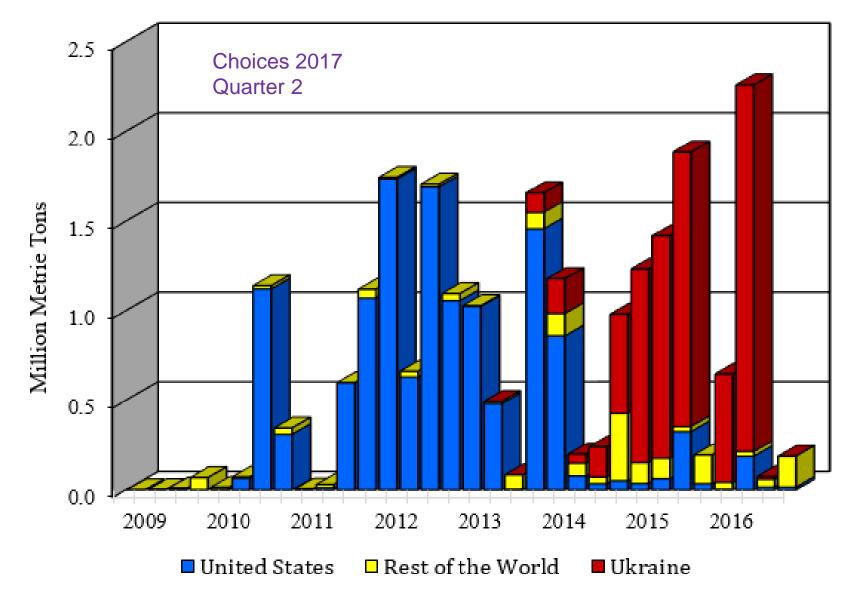
Million metric tons



Source: USDA FAS Grain: world markets and trade



US Exporters of Corn to China hurt by China's efforts to diversify import suppliers



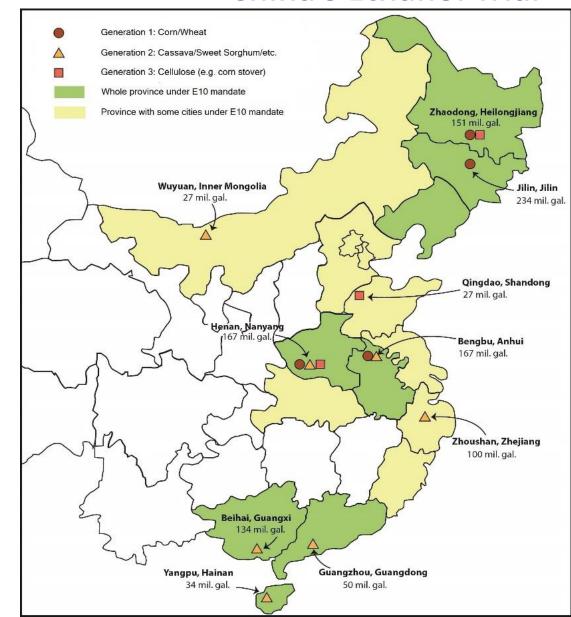
China sets 2020 target for nationwide ethanol use to cut corn stocks China's Ethanol Trial

China's Ethanol Industry in 2016

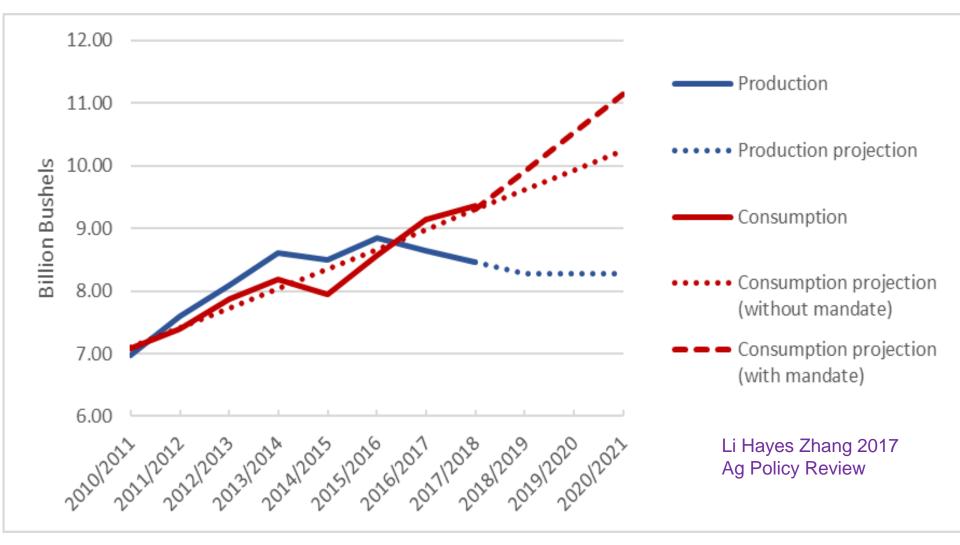
4th largest producer – 1 Bil gal.

- After US, Brazil and EU
- Corn ethanol 64%
- Also uses cassava, sorghum, corn stover
- Imported 225 mil. gal, mainly from U.S.
- Tariff rose from 5% to 30%

China consumes 40 bil. gal gasoline; 1 bil. gal ethanol in 2016

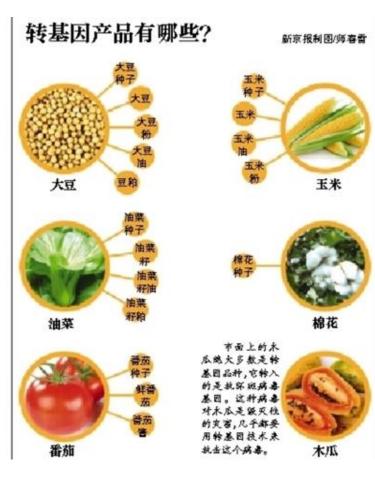


China's projected corn import potential and the role of ethanol



GMO in China

Soybean: 90% of soybean oil is GMO in China; Started importing GMO corn in 1997 (2.88 mil MT) -> 80 mil MT in 2016 Corn Papaya Tomato Cotton Rapeseed



转基因大豆油占我国九成市场



Source: Sohu.com

GMO in China: Controversy/Divide China Wants GMOs. The Chinese People Don't.

BloombergView

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After Decades Of Wariness, China To Grow GMOs

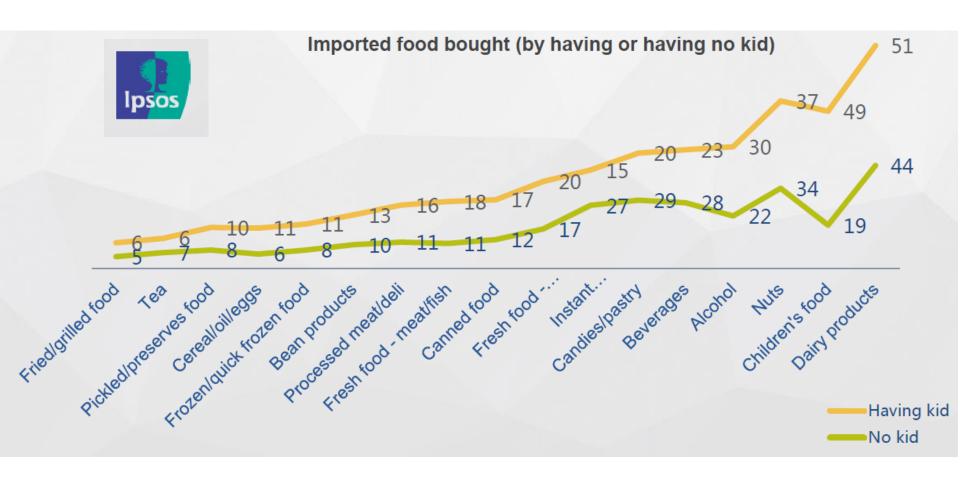
The Chinese have long been wary of genetically modified organisms. The country allows imports of genetically modified corn and soybeans for animal feed. But it's held off on domestic commercialization of those crops.

Over the past year, China has signaled it would relax that stance. This week it released its latest five-year plan for science and technology, saying it would push for the commercialization of biotech corn and soybeans in the next few years.

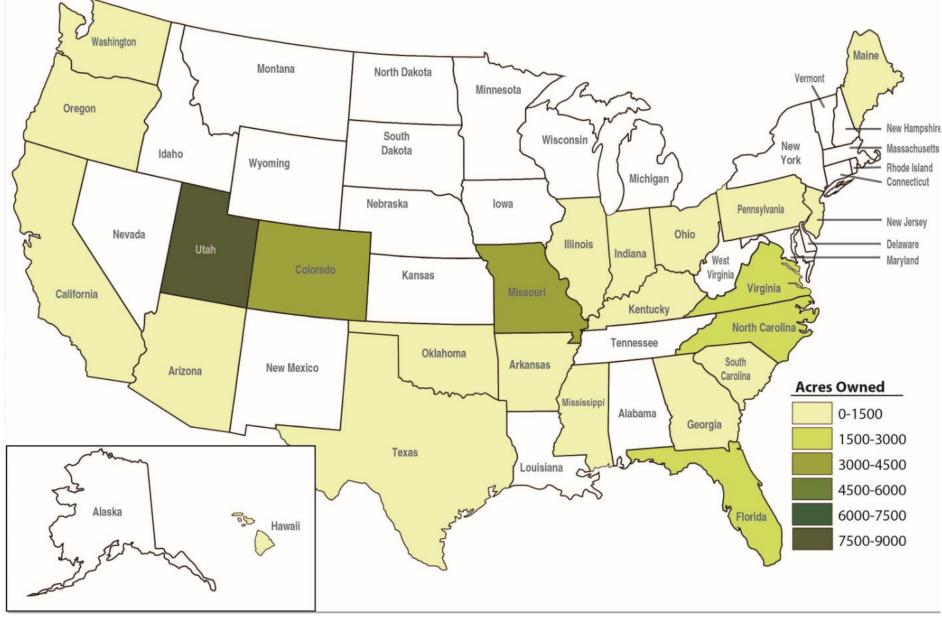
GMO in China: <u>Controversy/Divide</u>



Richer Urban Chinese Likes Safer Imported Food Especially dairy, children's food, nuts, fresh meat

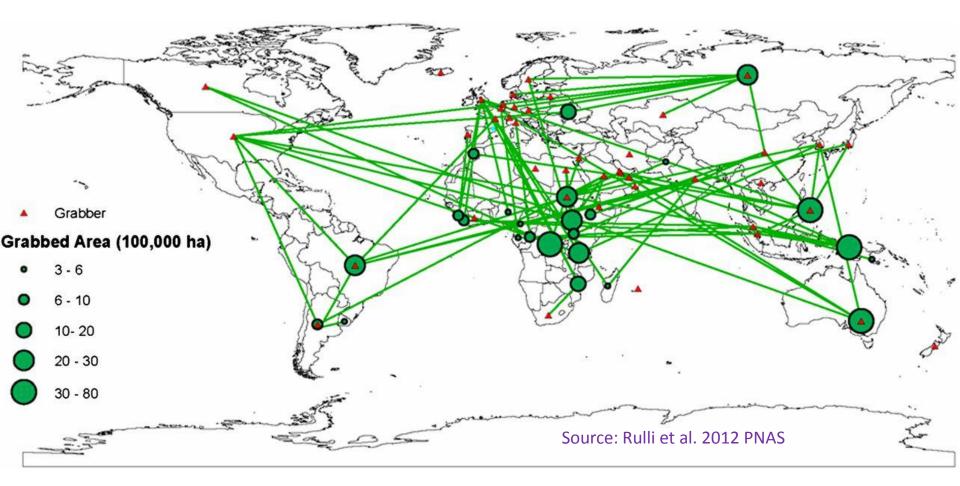


Farmland Acres Owned by Chinese Owners as of 2016

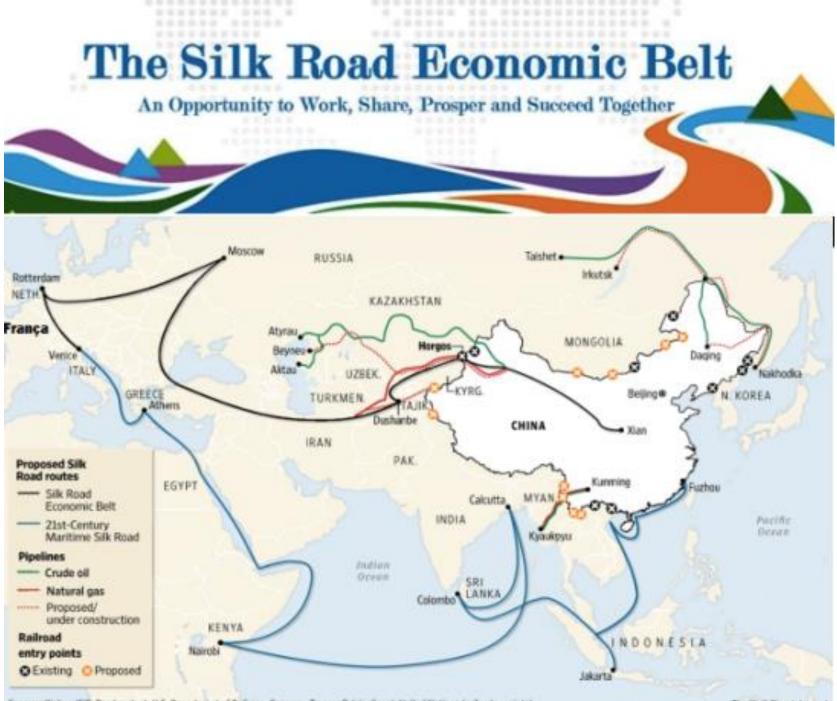


Bloomberg

Global Land Grab - 2012



Top Grabber: UK, US, China, United Arab Emirates, Israel Top Grabbed Country: Australia, Brazil, Indonesia, Congo, Philippines, Sudan



Sources: Xinhua (Silk Road mutas); U.S. Department of Defonse, Gazprom, Transneft (pipelines); United Nations (call entry points)

The Wall Street Journal

Planned Network of High-Speed Rail Lines to Be Built By 2030





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2017 ISU Land Value Survey is Ongoing until Dec 1st

- Who: Farm managers, appraisers, real estate brokers, ag lenders, ag sales
- When: December 1st, 2017
- How: Online Qualtrics Survey <u>http://bit.ly/LandValue2017</u>
- Contact: <u>landvalue@iastate.edu</u>
- Results released Dec 12 Tuesday YouTube stream <u>http://bit.ly/LandResults2017</u>



https://www.card.iastate.edu/farmland

• Iowa County Land Value in 2016

Sorted by: Value

Land Value Trend in County: Story

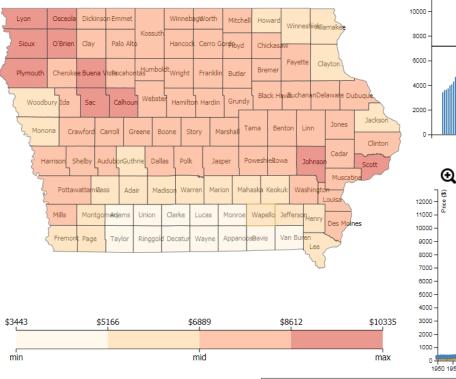
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County

State

lowa Farmland Value Portal





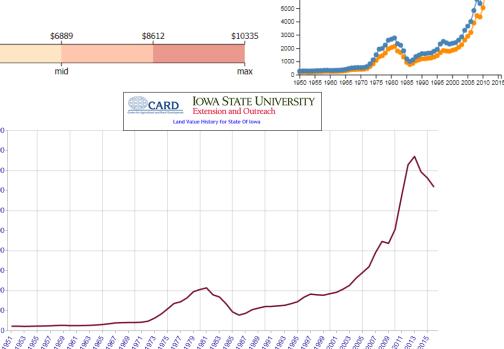
10,000 9,000

> 8,000 7,000 6.000

5,000 4,000 3,000

2,000

-and Value per Acre (\$) [nominal]



State Of Iowa (ISU)

Thank You!

Wendong Zhang Assistant Professor and Extension Economist 478C Heady Hall Iowa State University 515-294-2536 wdzhang@iastate.edu http://www2.econ.iastate.edu/faculty/zhang

