# Update on Iowa Farmland Market and China Ag Economy 

## Wendong Zhang

Assistant Professor of Economics and Extension Economist

## wdzhang@iastate.edu

515-294-2536

Farmland Owners Workshop, Altoona, Iowa
Feb 16, 2018
IOWA State University
Extension and Outreach

## 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 www.card.iastate.edu/farmland/ agriculture and the environment
China Ag center www.card.iastate.edu/china
IOWA State University
Extension and Outreach


## 


中文版 $\rightarrow$ China Ag Center Home Publications and Presentations Resources News People

## Center for China－US Agricultural Economics and Policy

CHINESE ACADEMY OF AGRICULTURAL SCIENCES

## China Ag Center • Publications and Presentations

## Publications

Minghao Li，Wendong Zhang，Dermot Hayes，Riley Arthur，Yantao Yang，and Xiudong Wang．2017．＂China＇s New Nationwide E10 Ethanol Mandate and Its Global Implications．＂Agricultural Policy Review．Center for Agricultural and Rural Development，Iowa State University．

Wu，Qianrong，and Wendong Zhang．2016．＂Of Maize and Markets：China＇s New Corn Policy．＂Agricultural Policy Review．Center for Agricultural and Rural Development，Iowa State University．

Zhang，Wendong．2015．＂The Commonalities and Differences between Chinese and US Agriculture．＂Agricultural Policy Review．Center for Agricultural and Rural Development，Iowa State University．

## A corny tale

## China imports a farm from Iowa

## A slice of the Midwest outside Beijing

## Presentations

Zhang，Wendong．2017．＂Recent Developments in China and its Impacts on US Agriculture．＂ 2017 Pro－Ag Outlook，November 17， 2017.

Zhang，Wendong．2017．＂From Northeast China to the Midwest．＂AMMO Club，November 6， 2017.

Zhang，Wendong．2017．＂Update on Chinese Ag Economy．＂In Institute for Cooperatives Member Summer Workshop，Huxley，IA，June 15， 2017.

Lawrence，John，and Zhang，Wendong．2017．＂Understanding the U．S．Farm Bill：Policy to Practice．＂Zil Presentation to the Chinese Ministry of Agriculture， Agricultural Trade Promotion Center Delegation，Ames，Iowa，May 30， 2017.

Zhang，Wendong．2017．＂What＇s Going On in China：Corn，GMO，Crop Insurance and High－Speed Rails．＂ 2017 Crop Advantage Series，Okoboji，IA， January 5， 2017.



IOWA STATE UNIVERSITY
Extension and Outreach

# CARD 

Center for Agricultural and Rural Development

## China's Provinces



## Mainland China vs. US <br> 

IOWA State University
Extension and Outreach


# My hometown: Shenxian, Shandong Province 

## Greenhouse - plastic film - Shandong Province



IOWA StaTE UNIVERSITY
Extension and Outreach


EARD
Center for Agricultural and Rural Development

| 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 <br> US

Number of Farmers
Number of Farms
Total Farmland Area
Corn Production Area
Soybean Production Area
Wheat Production Area
Total Size of Vegetable/Herb Greenhouses

Average Farm Size

| 241.7 million | 3.2 million |
| :---: | :---: |
| 200.2 million | 2.1 million |
| 406.8 million acres | 914.5 million acres |
| 89.7 million acres | 87.4 million acres |
| 16.9 million acres | 76.3 million acres |
| 59.6 million acres | 45.3 million acres |
|  |  |
| 83.6 million sq.ft. | 61.8 millionsq.ft |
| 2.0 acres | 433.6 acres |

# Chinese land is owned by collectives (Contract Right Certificate) 

Total land size
Number of parcels




## China's demographics - large is beautiful



Extension and Outreach

## Most Chinese people are still much poorer than the average American

## China's GDP will overtake

 the U.S. level in 2028 at these projected average growth rates:U.S. 2.0\%


China 6.5\%

## Bloomberg

IOWA STATE UNIVERSIT Extension and Outreach

GDP per capita (PPP)

## \$37,283

United States
\$1,846

China
U.S. GDP per capita was 20.2 times that of China

$$
2004
$$

Urbanized population
79.8\%

United States

China
Urbanization in China was lower than that of the U.S. in 1910

## 2016

GDP per capita (PPP) \$53,417
United States
\$14,275
China
U.S. GDP per capita was
3.7 times that of China

2016
Urbanized population

## 81.8\%

United States
56.8\%

China
Urbanization in China was lower than that of the U.S. in 1950

China's 2016 provincial GDP per capita as \% of Iowa

Per capita GDP (lowa=100\%)

| $\square 7 \%-10 \%$ |
| :---: |
| $11 \%-15 \%$ |
| $16 \%-20 \%$ |
| $21 \%-25 \%$ |
| $-26 \%-30 \%$ |



## China Pork

Pork production (lowa=100\%)
$\square<30 \%$
$31 \%-60 \%$
$61 \%-80 \%$
$81 \%-100 \%$
$>100 \%$

2016 Production

US: 25 Bil. Ibs
10Wa: 9 Bi. Ios
IOWA STATE dbindaviribillos Extension and Outreach

Beef production (lowa=100\%)

| $\square<10 \%$ |
| :--- |
| $\square$ |
| $\square$ |
| $-21 \%-20 \%$ |
|  |

US: 26 Bil. Ibs lowa: 1.2 Bil. Ibs China: 15 Bil. Ibs
2016 Production

## China Beef



## USDA United States Department of Agriculture Foreign Agricultural Service

## China

## $\$ 21.4$ billion $1 s$ smanem smomex

5005 U.S. Exports<br>1 Soybeans ( $\$ 14.2$ billion)<br>2 Course Grains* ( $\$ 1.0$ billion)<br>3 Hides \& Skins (\$949 million)<br>4 Pork (\$578 million)<br>5 Cotton (\$550 million)



Among U.S. Agricultural Export Markets, 2016

IOWA StATE UNIVERSITY

## Share of U.S. Agriculture Exported in 2016



## China's Top Ag Imports Sources

| Commodity (2016 value of China ag imports) | USA | Brazil | Europe | Australia | Argentina or Uruguay |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Soybean (\$34.4 Bil.) | 38\% | 47\% |  |  | A-10\% |
| Pork (\$2.32 Bil.) | 13\% |  | 50\% | Canada: 11\% |  |
| Ethanol (\$0.38 Bil.) | 70\% | 11\% | Pakistan 15\% |  |  |
| Beef (\$2.42 Bil.) | 0\% | 22\% |  | 28\% | U-21\% |
| Poultry (\$1.11 Bil.) |  | 79\% |  |  | A-9\% |
| Corn (\$0.87 Bil.) | 10\% | Ukraine: 79\% |  |  |  |

## Ibs per capita Meat Consumption by Country 2016



IOWA STATE UNIVERSITY Extension and Outreach

Source: OECD

## China aims to build a global infrastructure network

"Belt and Road" infrastructure projects, planned and completed (March 2017)

## Belt and



Silk Road Economic Belt
Maritime Silk Road of the 21st Century

AIB member states


Farm sector assets, inflation adjusted, 1970-2017F
\$ billion (2009)


Note: F = forecast; data for 2016 and 2017 are forecasts. The GDP chain-type price index is used to convert the nominal (current-dollar) statistics to real (inflation adjusted) amounts (2009=100).
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.
Data as of February 7. 2017.

## Guiding Framework

## Land Value = <br> localized net income / universal interest rate

IOWA State University Extension and Outreach

$$
P V=\sum_{t=0}^{n} \frac{R}{(1+i)^{t}}
$$

- For simplicity, you could think of land value as the present value of all future annual land rental payments a landowner could charge
- PV = R/i

IOWA STATE UNIVERSITY
Extension and Outreach

## AVERAGE lowe Lend Values

all farmland 1941-2017


1942194719521957196219671972197719821987199219972002200720122017 $\rightarrow$ Nominal land values $\rightarrow$ Inflation adjusted land values

IOWA STATE UNIVERSITY Extension and Outreach

## \% Change in Nominal Iowa Farmland Values 1942-2017

40.0\%

-40.0\%
1942194719521957196219671972197719821987199219972002200720122017
IOWA StATE UNIVERSITY Extension and Outreach
The "temporary break" in continued declines results from limited land supply
Sale Activity Index = \% Reported More Sales - \% Reported Less Sales + 100

| 1989 | 1993 | 1997 | 2001 | 2005 | 2009 | 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

IOWA State University
Extension and Outreach

Percent change in dollar value of "good" farmland
Top: July 1, 2017 to October 1, 2017
Bottom: October 1, 2016 to October 1, 2017

Illinois Indiana Iowa Michigan Wisconsin Seventh District


Dollars per Acre and Percent Change from 2016


## IOWA STATE UNIVERSITY

Extension and Outreach

## However

Percent change from previous year *

## , don't rush to

 conclud e a turn of the farmland market|  | Nonirrigated | Irrigated | Ranchland |
| :--- | :---: | :---: | :---: |
| Kansas | -7 | -8 | -5 |
| Western <br> Missouri | -1 | $\mathrm{n} / \mathrm{a} * *$ | 0 |
| Mountain <br> States*** | -3 | -11 | 1 |
| Nebraska | -8 | -7 | -8 |
| Oklahoma | -3 | -4 | -2 |
| Tenth District | -5 | -7 | -4 |

* Percent changes are calculated using responses only from those banks reporting in both the past and the current quarters.
** Not reported due to small sample size.
*** Mountain States include Colorado, northern New Mexico and Wyoming, which are grouped because of limited survey responses from each state.


## IOWA State University Extension and Outreach

Federal Reserve Bank of Kansas City kcFED Ag Credit Survey

## \% Change in Inflation-adjusted Iowa Farmland Values 1942-2017 (decrease 0.2\%)

40.0\%
30.0\%

-40.0\%
1942194719521957196219671972197719821987199219972002200720122017
IOWA State University
Extension and Outreach

## Indiana and Illinois both show declines



IOWA STATE UNIVERSITY
Extension and OutreachPurdue University
Illinois Chapter of American Society of iltural and Rural Development

## US Farm Income 1990-2026

## U.S. farm income indicators

Billion dollars


IOWA State University Extension and Outreach

The U.S. Department of Agriculture's Economic Research Service (ERS) indicated on Wednesday that, "Net farm income, a broad measure of profits, is forecast to decrease $\$ 4.3$ billion ( 6.7 percent) to $\$ 59.5$ billion in 2018, which would be the lowest level in nominal terms since 2006."

Net farm income and net cash farm income, 2000-19F


IOWA
Note: F = forecast.
Extensic Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of February 7, 2018

# Long-term interest rate expectations 

 What the Fed Reserve thinks the interest rate should beMARKETS CHART OF THE DAY

FED DOT PLOT
September December
Percent rate
4.25
4.00
3.75
3.50
3.25
3.00
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50

IOWA ${ }^{0.25}$
SOURCE: Federal Open Market Committee

December 2017

## Land Values by District and Quality, Nov 2017

| District | Average <br> Value | \% Change | High <br> Quality | \% Change | Medium <br> Quality | \% Change | Low <br> Quality | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Northwest | $\$ 9,388$ | $\mathbf{1 . 6 \%}$ | $\$ 10,829$ | $\mathbf{1 . 7 \%}$ | $\$ 8,555$ | $\mathbf{1 . 0 \%}$ | $\$ 6,216$ | $3.3 \%$ |
| North Central | $\$ 7,802$ | $3.2 \%$ | $\$ 8,730$ | $3.4 \%$ | $\$ 7,218$ | $3.2 \%$ | $\$ 5,265$ | $2.0 \%$ |
| Northeast | $\$ 7,543$ | $3.1 \%$ | $\$ 9,151$ | $2.9 \%$ | $\$ 7,236$ | $3.5 \%$ | $\$ 4,965$ | $2.4 \%$ |
| West Central | $\$ 7,377$ | $0.3 \%$ | $\$ 8,881$ | $0.1 \%$ | $\$ 6,824$ | $-0.7 \%$ | $\$ 4,684$ | $2.3 \%$ |
| Central | $\$ 8,097$ | $3.3 \%$ | $\$ 9,568$ | $2.9 \%$ | $\$ 7,426$ | $3.3 \%$ | $\$ 4,993$ | $-3.2 \%$ |
| East Central | $\$ 8,218$ | $3.8 \%$ | $\$ 9,900$ | $4.2 \%$ | $\$ 7,674$ | $3.8 \%$ | $\$ 5,305$ | $3.0 \%$ |
| Southwest | $\$ 6,058$ | $0.0 \%$ | $\$ 7,571$ | $0.6 \%$ | $\$ 5,756$ | $1.3 \%$ | $\$ 3,935$ | $-6.1 \%$ |
| South Central | $\$ 4,172$ | $-1.6 \%$ | $\$ 5,908$ | $-1.2 \%$ | $\$ 4,079$ | $-1.2 \%$ | $\$ 2,824$ | $-2.3 \%$ |
| Southeast | $\$ 6,864$ | $2.2 \%$ | $\$ 9,471$ | $2.2 \%$ | $\$ 6,548$ | $4.2 \%$ | $\$ 3,768$ | $-0.4 \%$ |
|  |  |  |  |  |  |  |  |  |
| Iowa Avg. | $\$ 7,326$ | $2.0 \%$ | $\$ 8,933$ | $2.0 \%$ | $\$ 6,849$ | $2.2 \%$ | $\$ 4,689$ | $0.5 \%$ |

## Livestock and Crop Inventory by Crop Reporting District

| District | Livestock Inventory - 2012 |  |  |  | Acres 2012 |  | Harvested Acres 2017 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Chickens, Layers | Hogs | Milk Cows | Cattle | Pasture | Timber | Corn | Soybean |
| Northwest | 30\% | 26\% | 29\% | 22\% | 7\% | 2\% | 15\% | 16\% |
| North Central | 64\% | 16\% | 4\% | 6\% | 4\% | 4\% | 14\% | 13\% |
| Northeast | 1\% | 12\% | 51\% | 16\% | 11\% | 23\% | 12\% | 8\% |
| West Central | 0\% | 13\% | 1\% | 13\% | 10\% | 7\% | 15\% | 16\% |
| Central | 3\% | 13\% | 1\% | 7\% | 8\% | 8\% | 15\% | 14\% |
| East Central | 1\% | 5\% | 10\% | 11\% | 11\% | 14\% | 11\% | 10\% |
| Southwest | 0\% | 2\% | 0\% | 9\% | 12\% | 5\% | 8\% | 10\% |
| South Central | 0\% | 2\% | 1\% | 9\% | 25\% | 19\% | 4\% | 6\% |
| Southeast | 1\% | 11\% | 3\% | 6\% | 12\% | 19\% | 7\% | 8\% |
| Iowa Total | 52.2 million | $\begin{gathered} 20.4 \\ \text { million } \end{gathered}$ | 0.17 million | 3.8 million | 2.5 million | 1.2 million | $\begin{gathered} 12.9 \\ \text { million } \end{gathered}$ | 10.0 million |
| IOWA STATE UNIVERSITY <br> Extension and Outreach <br> USDA NASS, Ag Census |  |  |  |  |  |  |  |  |

## Stronger than expected crop yields

Corn Yield: November 1, 2017 Bushels per Acre

Soybean Yield: November 1, 2017
Bushels per Acre



Source: USDA NRCS;
USDA FSA

CARD
Center for Agricultural and Rural Development


IOWA StATE UNIVERSITY
Extension and Outreach

CSR2 - Corn Suitability Rating
Weighted Mean CSR2


IOWA STATE UNIVERSITY
Extension and Outreach

## Iowa Major Soil Association



IOWA StaTE UNIVERSITY Extension and Outreach

## Percentage Change in lowa Land Values 2016 to 2017



IOWA State University
Extension and Outreach

CARD
Center for Agricultural and Rural Development

## Iowa Farmland Purchases by Buyer Types 1989-2097



IOWA StATE UNIVERSITY
Extension and Outreach

| Iowa Farmla Types, 2097 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Active Farmers | Retired Farmers | Estate Sales | Investors | Other |
|  | PERCENT |  |  |  |  |
| Northwest | 12 | 17 | 64 | 5 | 2 |
| North Central | 12 | 19 | 56 | 10 | 3 |
| Northeast | 14 | 34 | 43 | 6 | 5 |
| West Central | 12 | 23 | 57 | 6 | 2 |
| Central | 14 | 20 | 55 | 9 | 3 |
| East Central | 11 | 23 | 55 | 9 | 2 |
| Southwest | 16 | 23 | 48 | 11 | 2 |
| South Central | 16 | 30 | 33 | 19 | 2 |
| Southeast | 9 | 30 | 51 | 7 | 3 |
| STATE | 13 | 23 | 54 | 8 | 2 |

# Gash Grop Price Predictions for Nov 20!7, 20!8, 2020 as of May 2017 

## Soil Management Land Valuation Conference May 16, 2018 Wednesday, Scheman Bldg

|  | Cash Corn Prices |  |  |  | Cash Soybean Prices |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 2 0}$ |  |  |  |  |  |
| Northwest | $\$$ | 3.34 | $\$$ | 3.65 | $\$$ | 3.98 | $\$$ | 9.25 | $\$$ | 9.61 | $\$$ |

Farmland Price Expectations, 12 months from now
Higher Farmland Prices $\quad$ Lower Farmland Prices


IOWA StaTE UNIVERSITY
Extension and Outreach

## Inflation-adjusted Iowa Ag Real Estate Values 1850-2017



IOWA STATE UNIVERSITY Extension and Outreach

Source: USDA-NASS; Ag Census, Iowa Farmland Value Portal

# Positive 1: Real Income Accumulation 2003-2013 

|  | Average annual percent change in nominal values |  |  |
| :---: | :---: | :---: | :---: |
| Golden Eras | Iowa Land | U.S. Gross Income | U.S. Net Income |
| $\mathbf{1 9 1 0 - 1 9 2 0}$ | $9.3 \%$ | $9.0 \%$ | $8.4 \%$ |
| $\mathbf{1 9 7 3 - 1 9 8 1}$ | $19.5 \%$ | $9.8 \%$ | $5.3 \%$ |
| $\mathbf{2 0 0 3 - 2 0 1 3}$ | $13.7 \%$ | $7.1 \%$ | $10.7 \%$ |
| Crises and Declines | Iowa Land | U.S. Gross Income | U.S. Net Income |
| $\mathbf{1 9 2 1 - 1 9 3 3}$ | $-8.9 \%$ | $-4.7 \%$ | $-3.6 \%$ |
| $\mathbf{1 9 8 1 - 1 9 8 7}$ | $-14.0 \%$ | $2.1 \%$ | $7.3 \%$ |
| $\mathbf{2 0 1 3 - 2 0 1 7}$ | $1.1 \%$ | $-2.4 \%$ | $-6.4 \%$ |
|  | Average annual percent change in inflation-adjusted values |  |  |
| Golden Eras | Iowa Land | U.S. Gross Income | U.S. Net Income |
| $\mathbf{1 9 1 0 - 1 9 2 0}$ | $1.7 \%$ | $1.1 \%$ | $0.5 \%$ |
| $\mathbf{1 9 7 3 - 1 9 8 1}$ | $9.6 \%$ | $0.7 \%$ | $-3.4 \%$ |
| $\mathbf{2 0 0 3 - 2 0 1 3}$ | $11.0 \%$ | $4.5 \%$ | $8.2 \%$ |
| Crises and Declines | Iowa Land | U.S. Gross Income | U.S. Net Income |
| $\mathbf{1 9 2 1 - 1 9 3 3}$ | $-5.8 \%$ | $-2.0 \%$ | $-1.3 \%$ |
| $\mathbf{1 9 8 1 - 1 9 8 7}$ | $-15.0 \%$ | $-2.4 \%$ | $2.7 \%$ |
| $\mathbf{2 0 1 3 - 2 0 1 7}$ | $-0.1 \%$ | $-3.7 \%$ | $-7.6 \%$ |

Source: Zhang and Tidgren 2017

|  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Source: Ag DM PM1980, 2012 Iowa Farmland Ownership and Tenure Survey

# Positive 2: Historically low interest rates 



IOWA STATE UNIVERSITY source: htip:/mmw.multol.com Extension and Outreach

## Lenders/Regulators

- Banking Regulations
- More stringent, frequent stress-test
- BASEL III, liquidity requirements for banks
- (Ron Hansen - Iowa Division of Banking Superintendent) walk into this "with eyes wide open"
- Cash-Flow Based Loan Practice
- Before 1987: Ioan to value ratio is $85 \%$
- 1987-2008: Ioan to value ratio is $65 \%$
- After 2008: use cash-flow method for collateral (\$4 corn, $\$ 10$ bean) and $50 \%$ of cash flow value

Annual Mortgage Payments vs. Cash Rents for lowa Farmland Loan

| $\begin{aligned} & \bar{\Psi} \\ & \stackrel{y}{0} \\ & \stackrel{\pi}{\sqrt{2}} \end{aligned}$ |
| :---: |
| 500 |
| $\stackrel{\text { © }}{ }{ }^{\text {E }} 350$ |
| त |
| 8 |
| ${ }_{0}^{0}$ |
| $\sum^{\circ} 150$ |
| ¢ 100 |
| 苍 50 |
| $\stackrel{0}{\sim}$ |
| \% |
|  |

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

BloombergView

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
IO would push for the commercialization of biotech corn and soybeans in the next few years.

## GMO in China: Controversy/Divide



## China OKs two GMO products for import

07/17/172:45 PM By Steve Davies
WASHINGTON, July 17, 2017 - China has approved two more genetically modified products for import, which should leave four products awaiting decisions from the Chinese Ministry of Agriculture (MOA). But Dow AgroSciences said today that the ministry is "now indicating that Enlist soybeans is not covered" by a 100-day economic action plan initiated by the U.S. and Chinese governments in April.

The ministry has approved Syngenta's Agrisure Duracade corn, engineered to be resistant to corn rootworm, and Monsanto's Roundup Ready corn. Dow received import approval last month for Enlist corn, which China approved along with a Monsanto soybean variety, Vistive Gold. At the time, Dow said it had received inquiries from China's National Biosafety Committee about Enlist soybeans and planned to address those questions quickly.

Today, Dow AgroSciences said it "understands Enlist soybeans was considered one of 'the eight pending biotechnology traits' by the U.S. Department of Commerce for the 100-day initiative referenced in the (U.S.-China) joint release on May 10," which provided a progress report on the 100day plan.


## China's ‘Uber for bikes’ model is going global

Beijing, Shenzhen, Guangzhou (Bay Area Bike Share)

- in each city (Mobike)

100
(Santander Cycles)

13.6

New York City (Citi Bike)

10
Washington DC (Capital Bikeshare)

San Francisco


Shanghai (all schemes)
3.7
1.03



Ultra-high-voltage direct-current projects in China



## IOWA STATE UNIVERSITY <br> Extension and Outreach

Farmland Acres Owned by Chinese Owners as of 2016


Extension and Outreach
Bloomberg

## 


中文版 $\rightarrow$ China Ag Center Home Publications and Presentations Resources News People

## Center for China－US Agricultural Economics and Policy

CHINESE ACADEMY OF AGRICULTURAL SCIENCES

## China Ag Center • Publications and Presentations

## Publications

Minghao Li，Wendong Zhang，Dermot Hayes，Riley Arthur，Yantao Yang，and Xiudong Wang．2017．＂China＇s New Nationwide E10 Ethanol Mandate and Its Global Implications．＂Agricultural Policy Review．Center for Agricultural and Rural Development，Iowa State University．

Wu，Qianrong，and Wendong Zhang．2016．＂Of Maize and Markets：China＇s New Corn Policy．＂Agricultural Policy Review．Center for Agricultural and Rural Development，Iowa State University．

Zhang，Wendong．2015．＂The Commonalities and Differences between Chinese and US Agriculture．＂Agricultural Policy Review．Center for Agricultural and Rural Development，Iowa State University．

## A corny tale

## China imports a farm from Iowa

## A slice of the Midwest outside Beijing

## Presentations

Zhang，Wendong．2017．＂Recent Developments in China and its Impacts on US Agriculture．＂ 2017 Pro－Ag Outlook，November 17， 2017.

Zhang，Wendong．2017．＂From Northeast China to the Midwest．＂AMMO Club，November 6， 2017.

Zhang，Wendong．2017．＂Update on Chinese Ag Economy．＂In Institute for Cooperatives Member Summer Workshop，Huxley，IA，June 15， 2017.

Lawrence，John，and Zhang，Wendong．2017．＂Understanding the U．S．Farm Bill：Policy to Practice．＂Zil Presentation to the Chinese Ministry of Agriculture， Agricultural Trade Promotion Center Delegation，Ames，Iowa，May 30， 2017.

Zhang，Wendong．2017．＂What＇s Going On in China：Corn，GMO，Crop Insurance and High－Speed Rails．＂ 2017 Crop Advantage Series，Okoboji，IA， January 5， 2017.

## 2017 Iowa Farmland <br> Ownership and Tenure Survey

- First land ownership survey in the nation: 1949
- Only one conducted at frequent intervals:
- 1949, 1958, 1970, 1976, 1982, 1992, 1997, 2002, 2007, and 2012.


## Next one in 2017

 Results released spring 2018
## Documentaries about China

- China: Time of Xi - https://www.youtube.com/watch?v=NEGp6y3uGIA
- One Belt One Road https://www.youtube.com/watch?v= NtprkECCiU
- A Bite of China - Chinese cuisine/culture
https://www.youtube.com/watch?v=Awj4u-
Ntgs\&list=PLYOTfstAG IPjyEeT472GEJzafYmBiA3w
- Bird's Eye China - aerial China by province
https://www.youtube.com/watch?v=LVinASDa6Pw
- The world's future MegaProjects (2017-2040)
https://www.youtube.com/watch?v=CiQ874Zulno
- Wild China - BBC (2008)
http://www.bbc.co.uk/programmes/b00bv6lk/episodes/guide
- Chinese New Year: The Biggest Celebration on Earth (2016) - BBC http://www.bbc.co.uk/programmes/b071c3mh/episodes/guide
- China's MegaProjects - available in Chinese only


## IOWA STATE UNIVERSITY <br> Extension and Outreach

Center for Agricultural and Rural Development

##  1




IOWA STATE UNIVERSITY
Extension and Outreach

CARD
Center for Agricultural and Rural Development

## 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

