

# US-China Agricultural Trade: the Way Forward

IOWA STATE UNIVERSITY  
Extension and Outreach



**Wendong Zhang**

Assistant Professor and Extension Economist at ISU  
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Iowa Corn Growers Association EGT Committee Meeting,  
February 24, 2021



# 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**

- 2020 Results now available at **ISU Farmland Portal** [www.card.iastate.edu/farmland/](http://www.card.iastate.edu/farmland/)

- 2019 Farm Transfer Survey

agriculture and the environment (e.g., the 2019 Iowa Lakes Survey)

**China Ag center** [www.card.iastate.edu/china](http://www.card.iastate.edu/china)

# POLITICO

CHINA

## The decaying U.S.-China relationship will change each of our lives

By DAVID WERTIME  
07/16/2020 08:40 AM EDT

Money and information won't flow like it used to and global companies will have to make stark choices.

Los Angeles Times

## News Analysis: How bad could U.S.-China relations get?



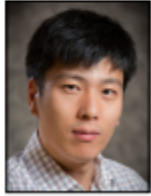
South China Morning Post



Finbarr Bermingham and Wendy Wu

Published: 11:00pm, 25 Aug, 2020

## US-China trade war: both sides cling to phase one deal as wider relationship crumbles



## A brief argument for healthy US-China agricultural trade relations despite deglobalization pressures

By Wendong Zhang, extension economist, 515-294-2536, wdzhang@iastate.edu

<https://www.extension.iastate.edu/agdm/articles/zhang/ZhaNov20.html>

APPLIED ECONOMIC  
PERSPECTIVES  
AND POLICY

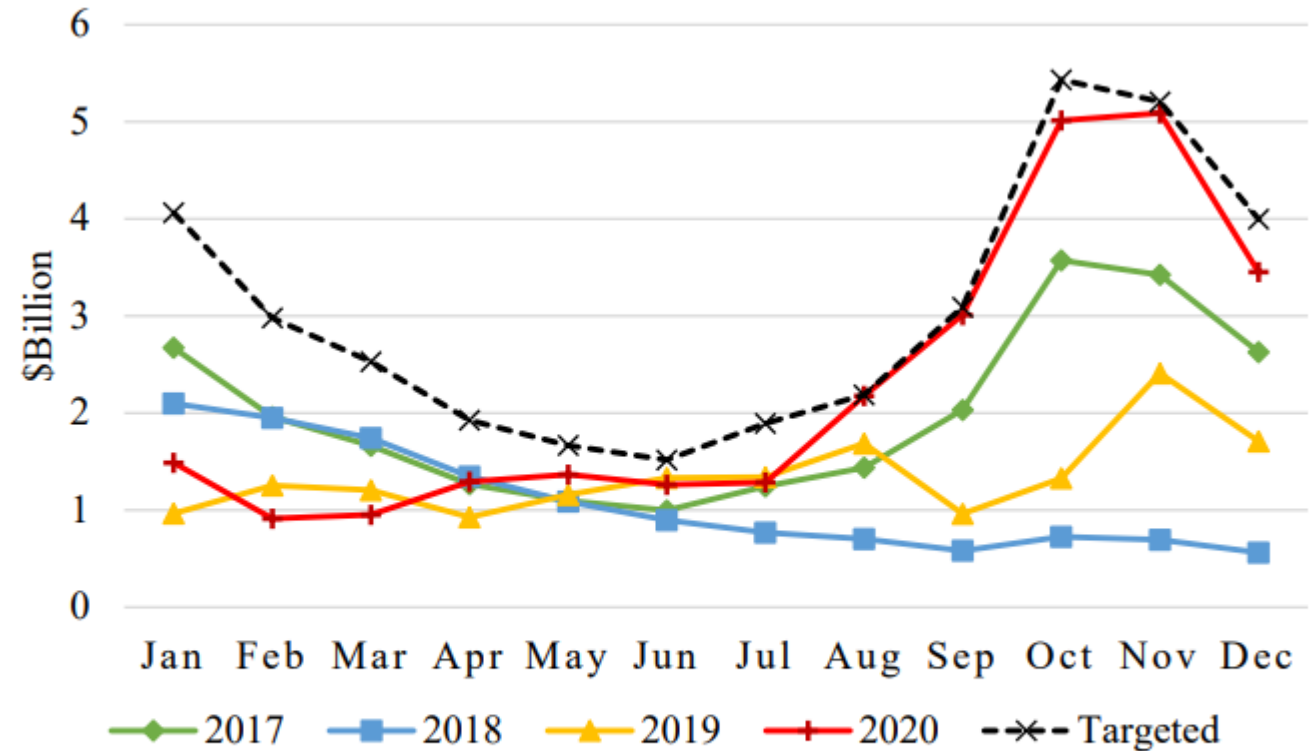


Featured Article

### The Case for Healthy U.S.-China Agricultural Trade Relations Despite Deglobalization Pressures†

Wendong Zhang ✉

First published: 13 October 2020 | <https://doi.org/10.1002/aepp.13115>

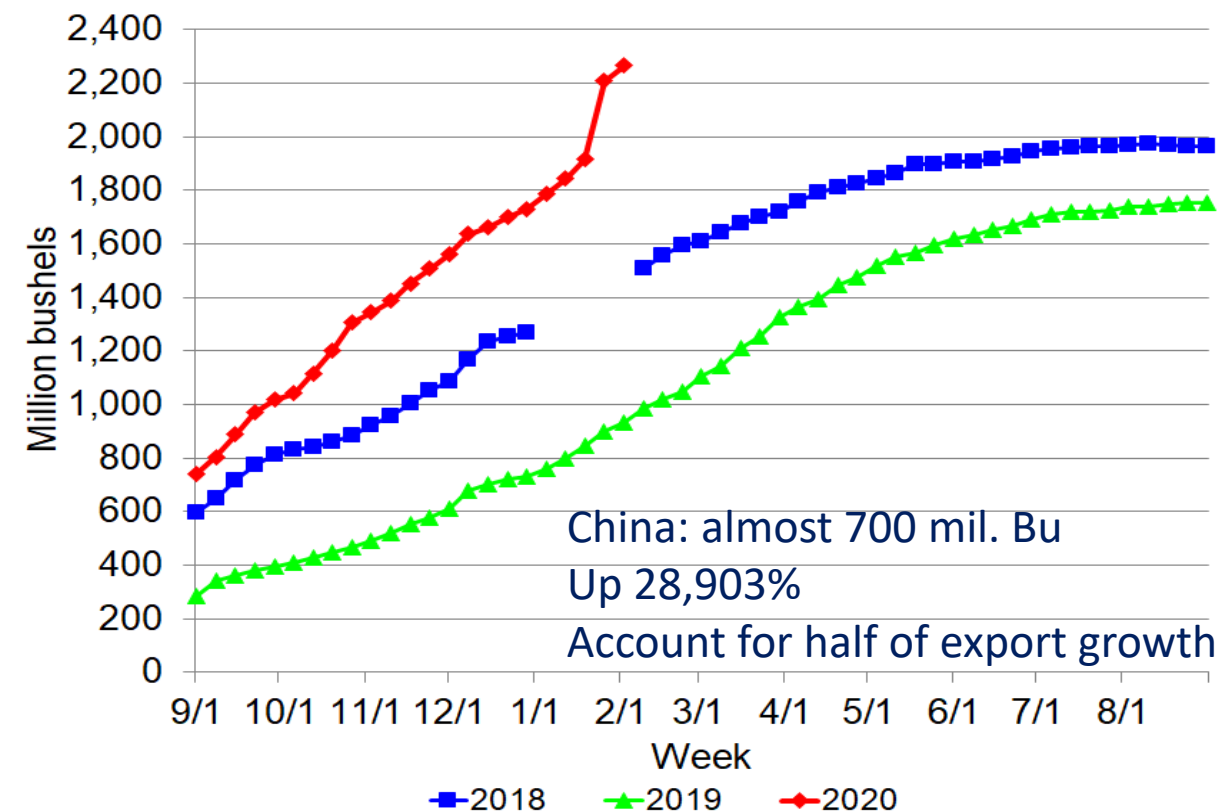


**Figure 1. Monthly US agricultural and related products exports to China, 2017–2020.**

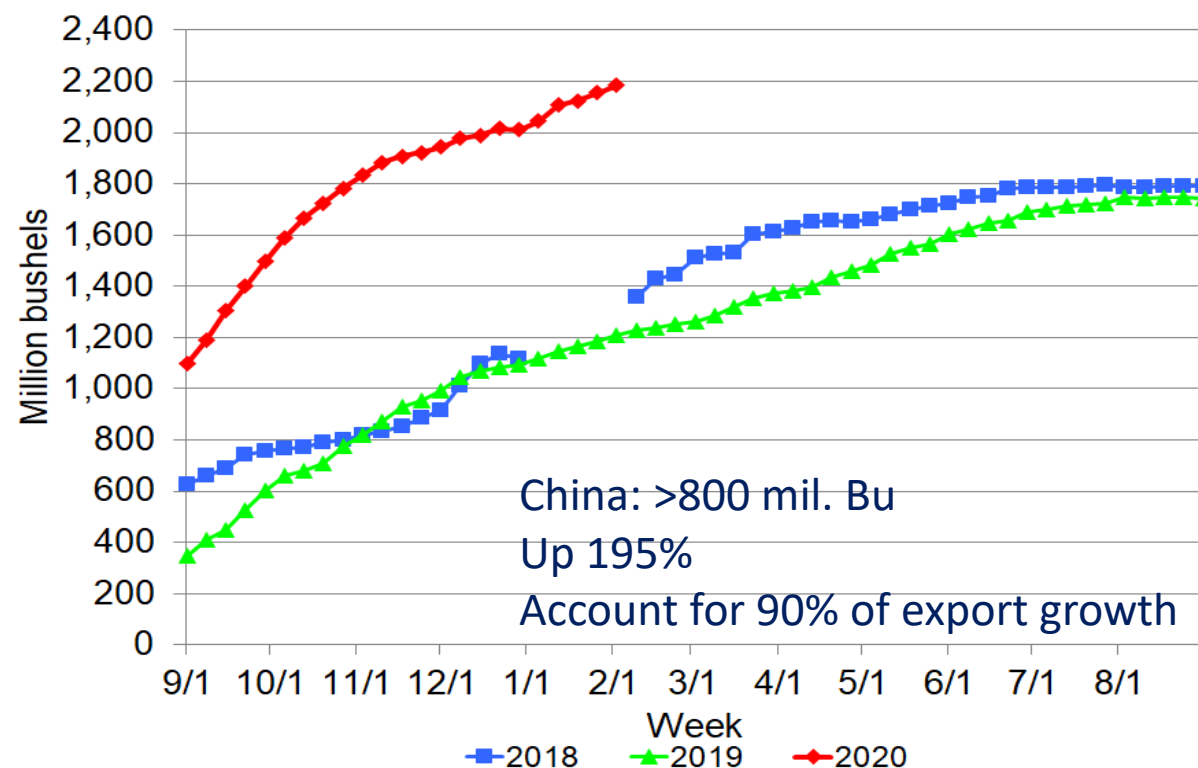
China's Ag Minister Tang in Dec 2020:  
China's hog inventory is 91% of 2017 levels

# Recent commodity price rallies driven by surging exports, not record gov't payments

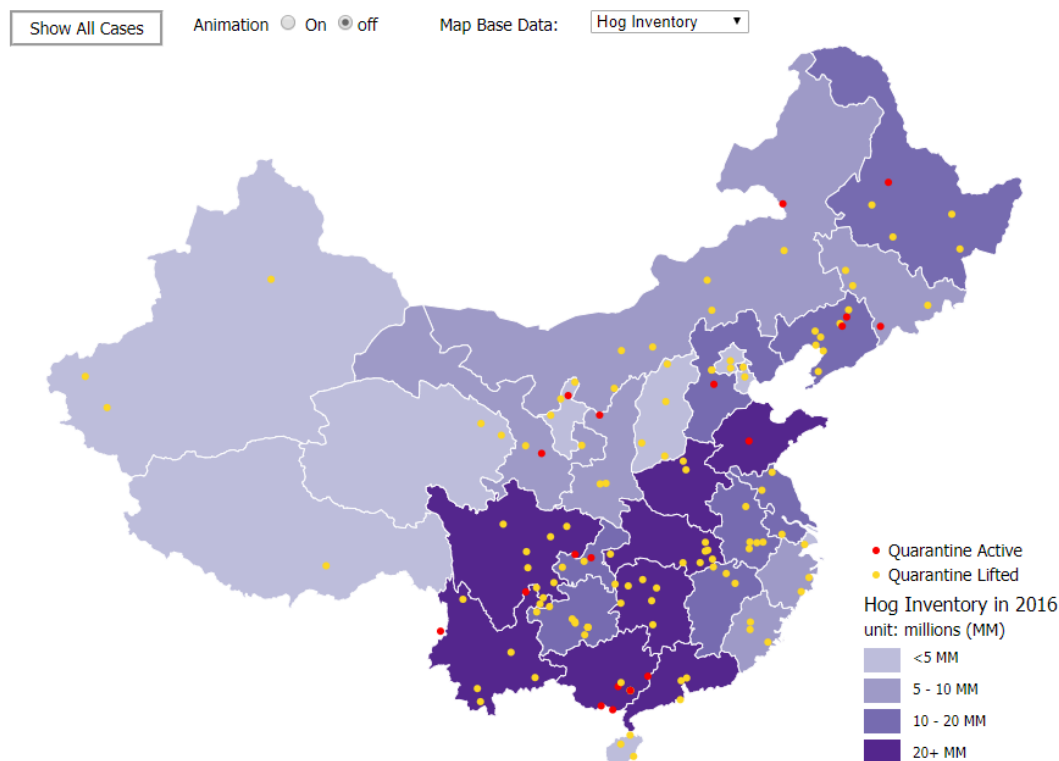
## Corn Export Sales



## Soybean Export Sales



## African Swine Fever Cases in China (Mainland)



# China makes progress rebuilding hog herd

By [Sean Pratt](#)

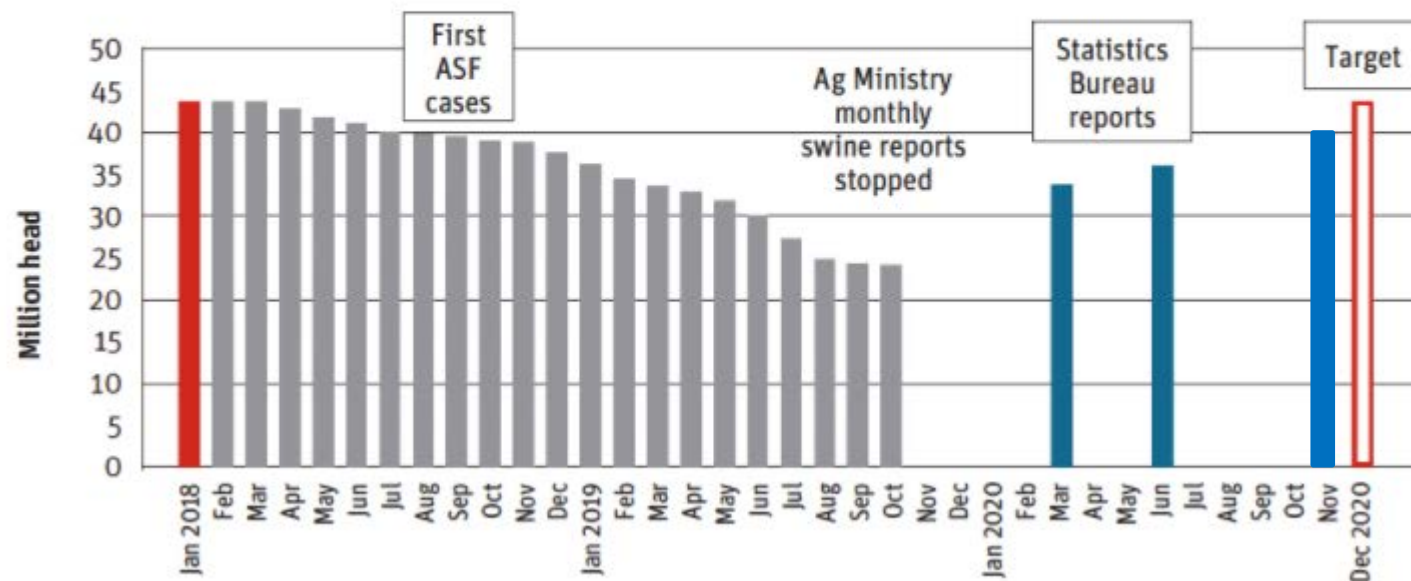
Published: August 6, 2020  
Markets

THE WESTERN  
PRODUCER

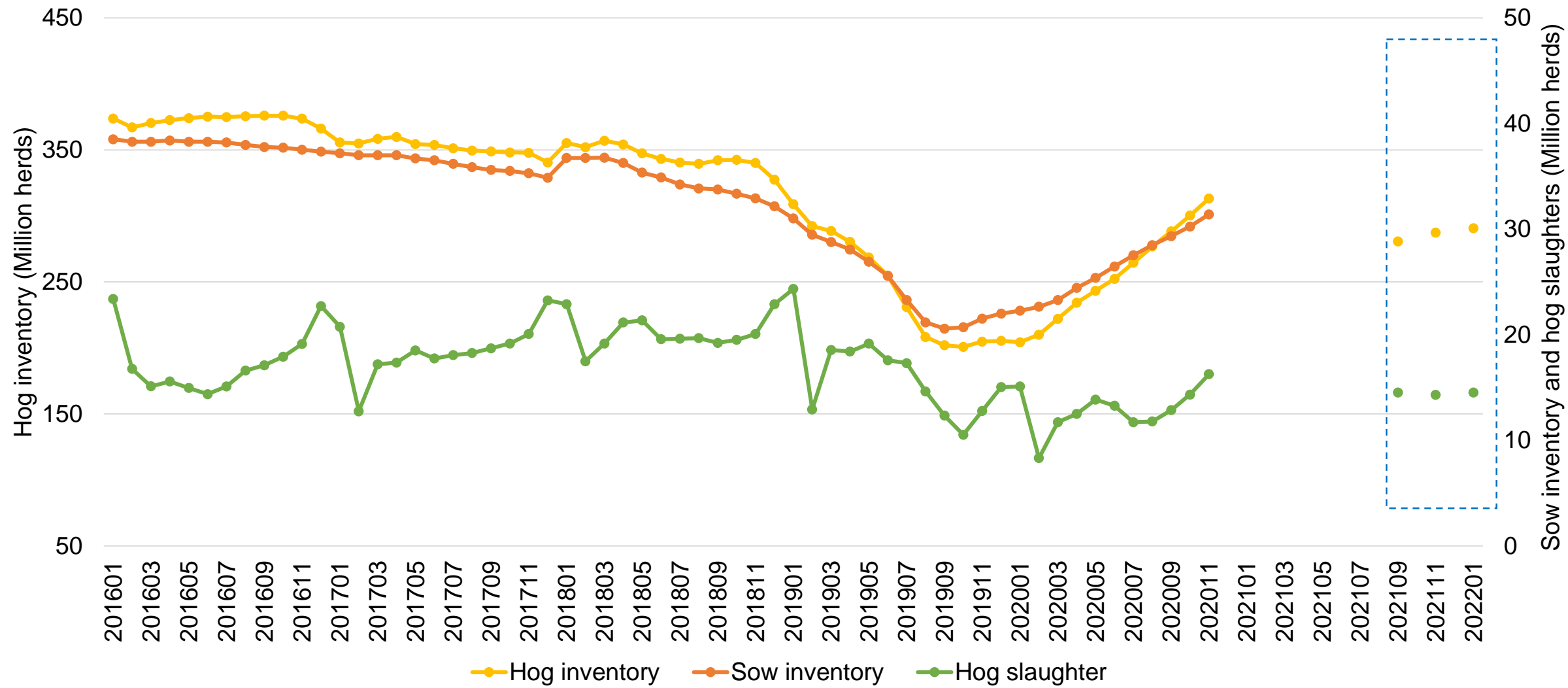
## HOG RECOVERY

China is rapidly rebuilding its sow herd, according to Chinese government statistics. China's Statistics Bureau estimates inventory at 36.3 million at the end of June 2020. The goal is to be at pre-African swine fever levels of 43.9 million head by the end of 2020.

### China sow inventory numbers, 2018-2020

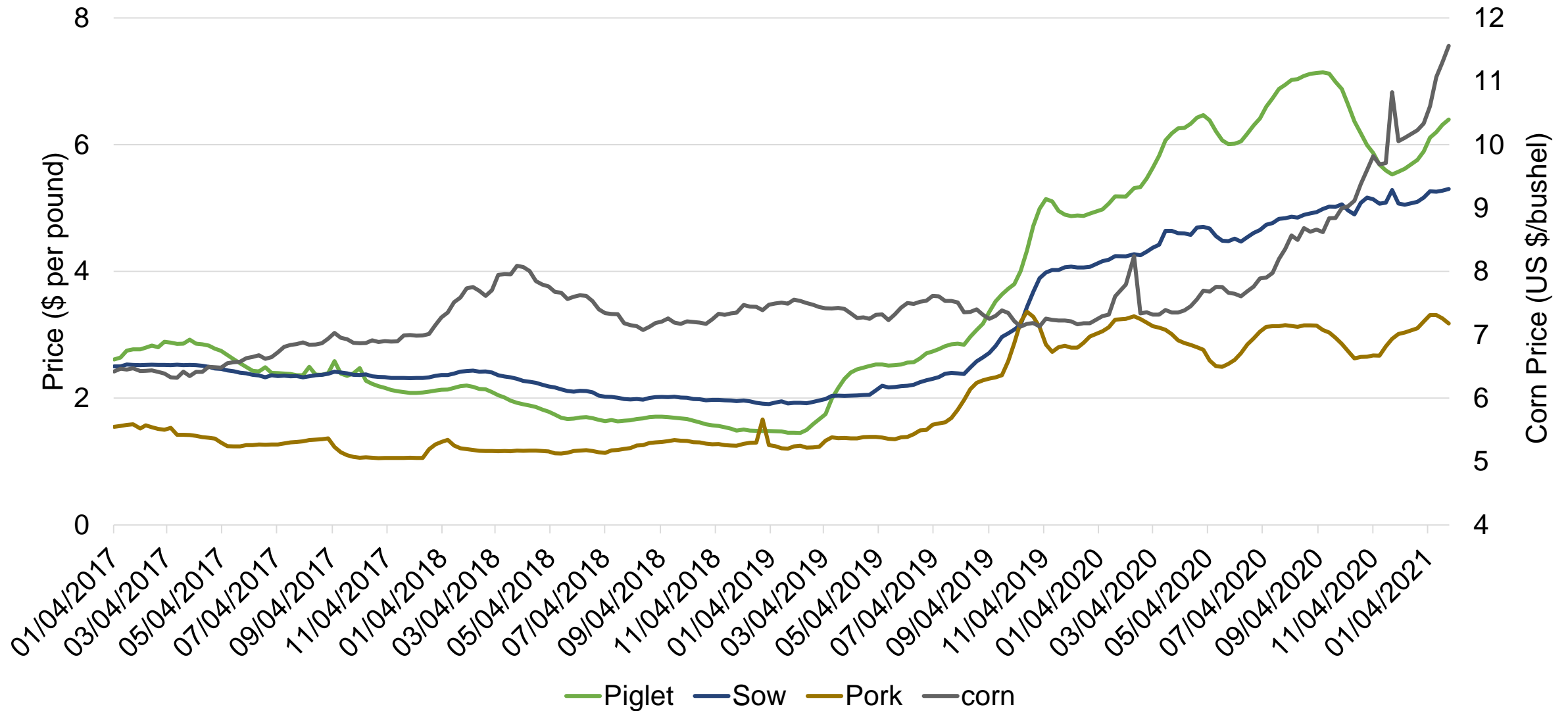


# China's hog rebuilding progress 2018-2021





# China's hog & pork & corn prices 2017-2021





## CARD Policy Briefs

IOWA STATE UNIVERSITY

Xi He  
Dermot Hayes  
Wendong Zhang

February 2021 20-PB 29

# China's Agricultural Imports under the Phase One Deal: Is Success Possible?

Table 1. China's Imports of Key Commodities 2017 and 2020

	2017 Jan–Dec			2020 Jan–Dec		
	US	Non-US countries	US share	US	Non-US countries	US share
<i>China's total import value (\$Million)</i>						
Corn	160	442	26.55%	959	1532	38.50%
Soybeans	13940	25698	35.17%	10634	28904	26.90%
Cotton	983	1207	44.88%	1466	1869	43.96%
Sorghum	957	69	93.26%	978	135	87.90%
Peanuts	62	268	18.74%	203	941	17.77%
Pork	1162	3217	26.53%	1695	17198	8.97%
Beef	25	3116	0.80%	228	10000	2.23%
Poultry	0	1032	0.00%	750	2748	21.44%
Dairy	1087	8203	11.71%	479	9659	4.73%
Ethanol	1	29	3.09%	15	21	41.18%
Total agricultural and related products	24,000	101,860	19.07%	27,300	143,501	15.98%

Source: General Administration of Customs of China data (GACC 2020).

## CARD Policy Briefs

IOWA STATE UNIVERSITY

February 2021 20-PB 29

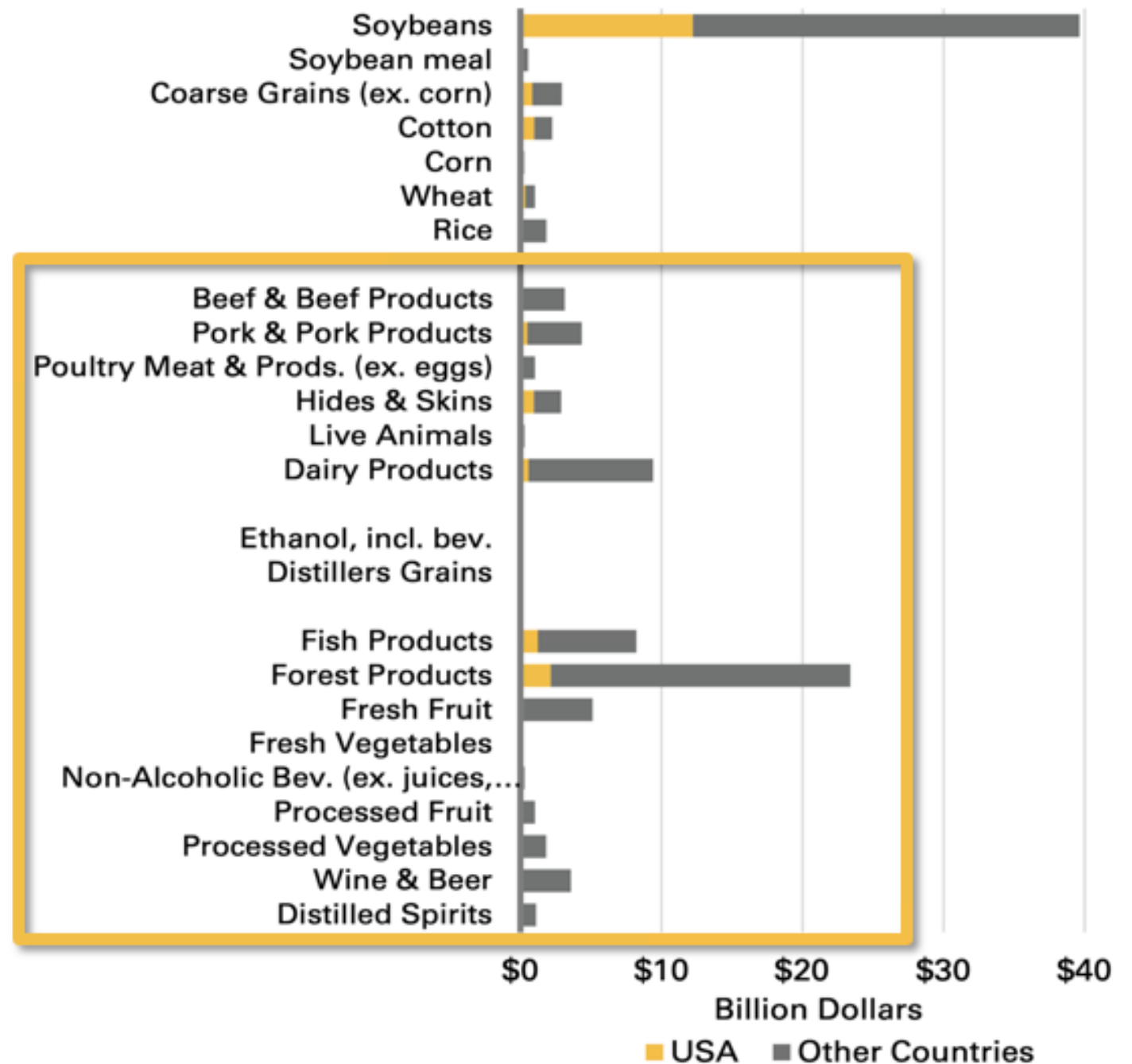
**China's Agricultural Imports under the Phase One Deal: Is Success Possible?**Xi He  
Dermot Hayes  
Wendong Zhang**Table 3. China's Predicted Agricultural Imports of Key Commodities from February 15, 2020, to February 14, 2021**

	<u>Value</u> (\$Million)	<u>Imports from US</u>	<u>Value</u> (\$Million)	<u>Imports from all sources</u>
		<u>Quantity (Thousand metric tons)</u>		<u>Quantity (Thousand metric tons)</u>
Corn	3,907	17,690	5,475	24,647
Soybeans	14,520	35,130	40,006	101,884
Cotton	1,501	922	3,172	1,935
Sorghum	1,121	4,828	1,261	5,410
Pork	2,005	1,488	20,567	25,319
Beef	230	28	10,439	2,168
Ethanol	33	78*	54	129*
Poultry	751	423	3,593	1,589
Total ag	35,822		182,130	

*Note:* Author's estimation based on 2017 seasonal patterns and China's most recent agricultural purchases from the United States, which includes advanced corn and soybeans sales until January 29, 2021. We assume the advanced corn and soybean sales until January 29, 2021, will be delivered in the

# A possible & more balanced pathway for China's ag import surge?

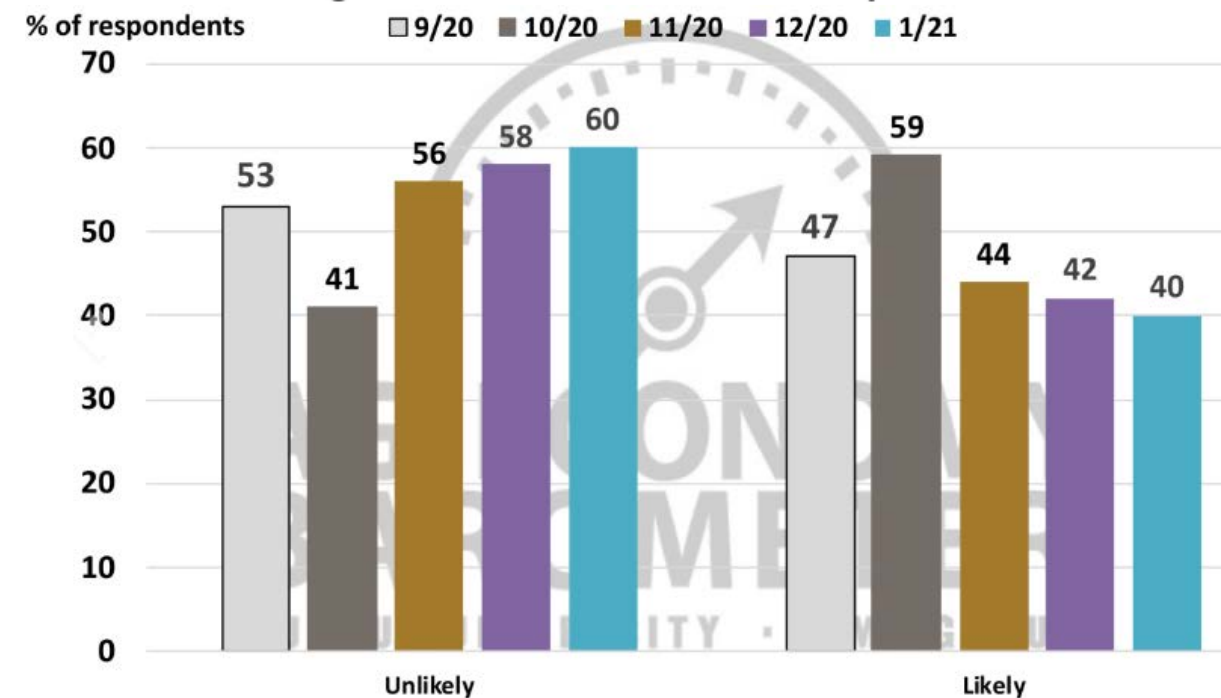
Key Chinese agricultural imports by commodity and country in 2017



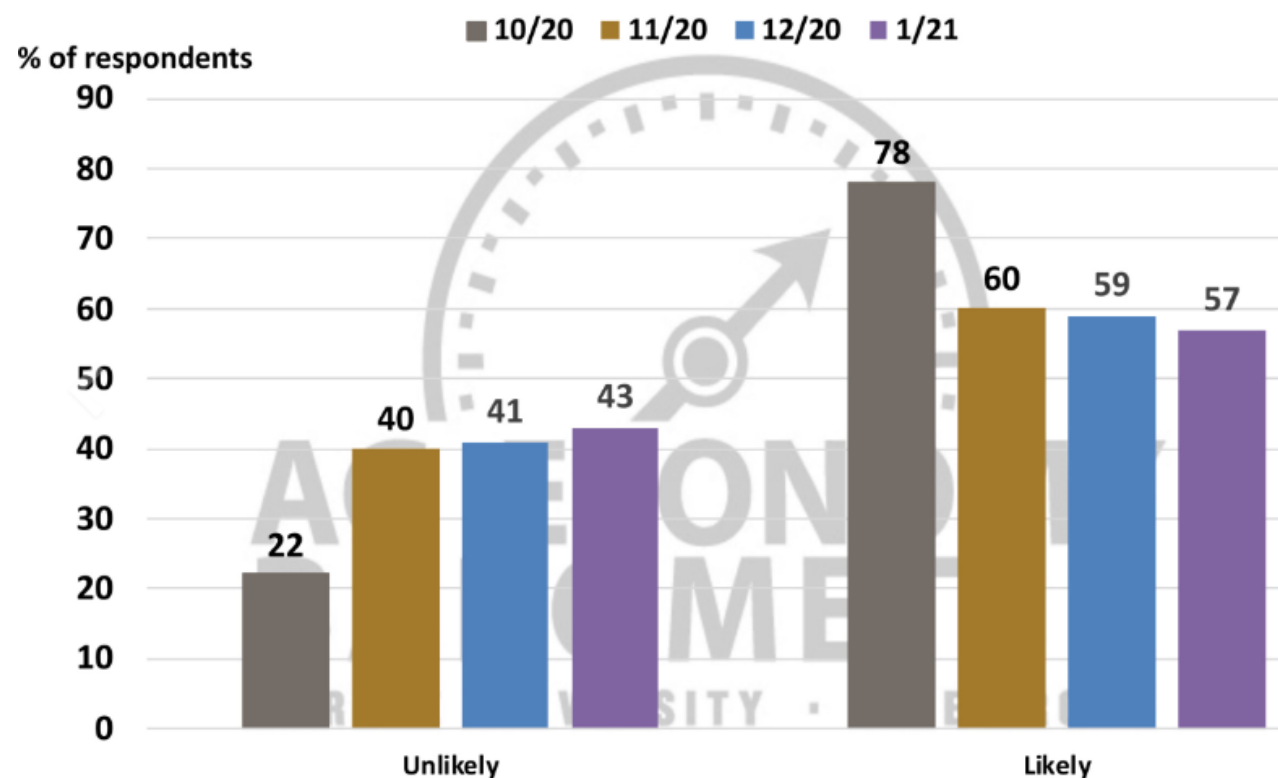


# What Do Farmers Think About the Trade Deal?

Do you think it is likely or unlikely that China will fulfill the food and agricultural import requirements outlined in the Phase One economic and trade agreement signed with the U.S. back in January 2020?



In the next five years, how likely is it that new foreign export markets will open up to American agricultural goods?

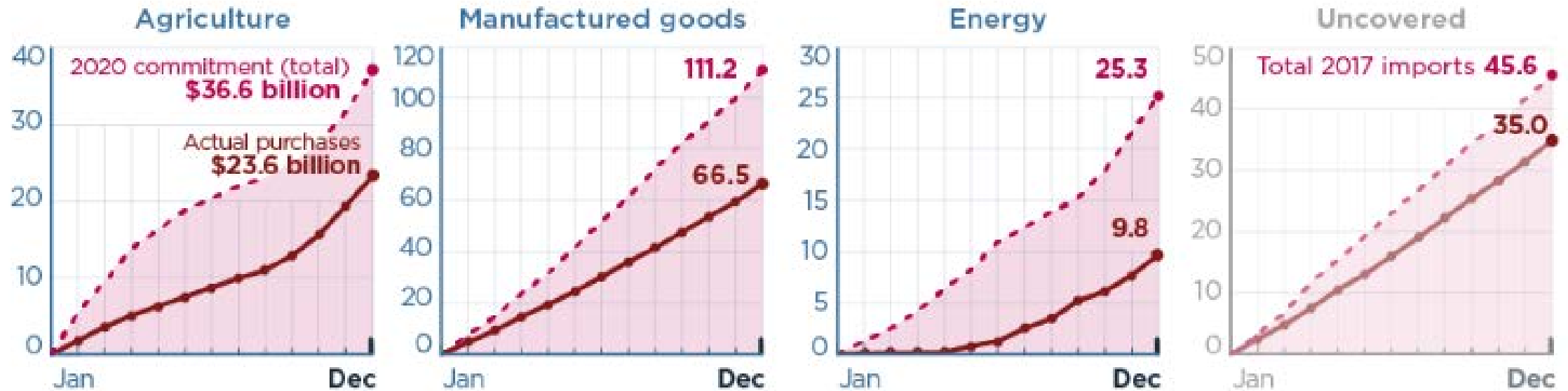


# US-China phase one tracker: China's purchases of US goods

US exports and China's imports in 2020 of all goods covered by the phase one deal

Chad P. Bown (PIIE)  
February 8, 2021

## b. China's imports by product type, billions USD



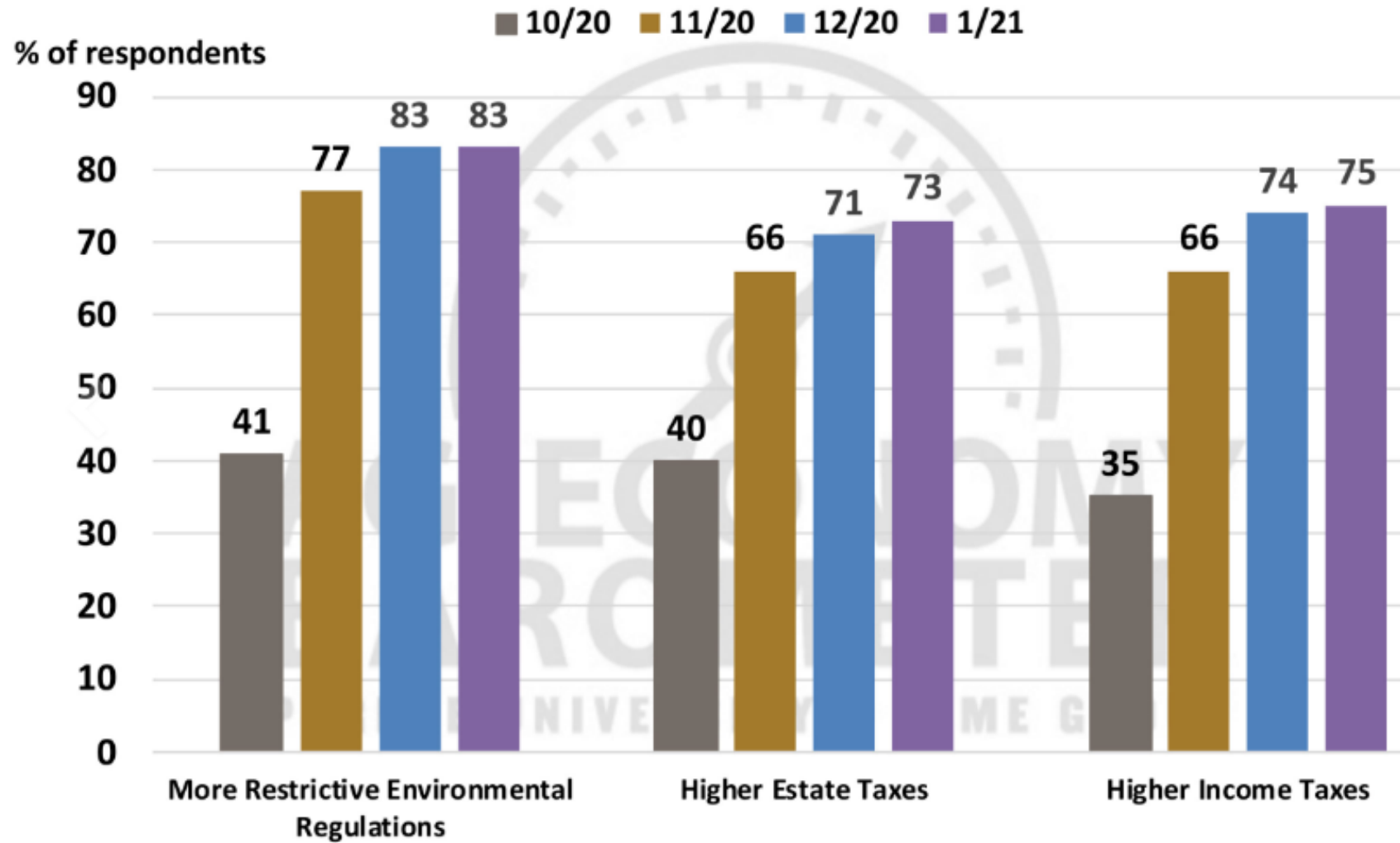
US-China trade dispute

+ Add to myFT

Biden administration says Trump's China trade deal 'under review'

“Chinese purchases of US exports fall far behind trade deal pledge”

## Farmer Expectations Regarding Changes in Policies Affecting U.S. Agriculture in Next 5 Years, October-January 2021





# Biden is No Stranger to Xi

## MUSCATINE VISITOR

### Spokesman: Friendly Iowans bring VP back

Mike Ferguson Feb 13, 2012 Updated Feb 28, 2012



FILE - In this Aug. 21, 2011, file photo U.S. Vice President Joe Biden, right, walks with Chinese Vice President Xi Jinping, left, as they visit the South Bridge in Dujiangyan on the outskirts of Chengdu, in southwestern China's Sichuan province. Xi will visit Iowa in February, 2012, reciprocating for Vice President Joe Biden's visit to China last August. (AP Photo/Ng Han Guan, File)

The New York Times

## *Chinese Vice President Ends U.S. Tour on Friendly Note*



Vice President Xi Jinping of China and Vice President Joseph R. Biden spoke to students at the International Studies Learning Center in South Gate, Calif. Monica Almeida/The New York Times

By Edward Wong

Feb. 17, 2012

[Circling back](#)

## China's "dual-circulation" strategy means relying less on foreigners

Xi Jinping sees the creation of fully domestic supply chains as a matter of national security

**THE | DIPLOMAT**

READ THE DIPLOMAT. KNOW THE ASIA-PACIFIC

By **Hemant Adlakha**

December 01, 2020

**The  
Economist**

## With RCEP Complete, China Eyes CPTPP

Is President Xi Jinping's statement desire to join the CPTPP a signal of reconciliation to the new Biden administration or a bid to advance China's regional dominance?

## Europe strikes major investment deal with China despite US concerns

By Charles Riley, [CNN Business](#)

Updated 9:15 AM ET, Wed December 30, 2020

**CNN BUSINESS**

## China pledges to become carbon neutral before 2060

Unexpectedly forthright pledge will boost UN efforts to galvanise action on climate crisis

**gn in  
The  
Guardian****Fiona Harvey** *Environment correspondent*

Tue 22 Sep 2020 15.21 EDT

# Conjecturing Trade Policy under Biden

- **Trade policy likely not an immediate priority** (compared to COVID-19 response & international coordination, Paris Accord, potentially Iran)
- **Lower your expectations on tariff rollbacks**, will remain tough on China
  - Biden in 2019: *“If we don't set the rules, we in fact are going to find ourselves with China setting the rules, and that's why we need to organize the world to stop China to stop the corrupt practices that are under way”*
- More likely to embrace allies & **multilateral** approaches & Intl. organizations
- The tone will be more **polite** & regular dialogue channels will be resumed
- RCEP (SE Asia, China, Japan, Korea, Australia, New Zealand) will put pressure on Biden to consider rejoining TPP (now called CPTPP) – **CPTPP** has higher standards on tariff removals, labor and environmental standards
- New sources of tensions with China on human rights, Hong Kong, S China Sea
- Biden voted for NAFTA & China joining WTO & met 4<sup>th</sup> generations of Chinese leaders



# US-China Relations under Biden

- **Areas of collaboration – good will is needed to be shown through actions**
  - work together under Paris Climate Accord;
  - reinstating regular strategic and economic dialogues channels;
  - Encouraging people to people interactions (e.g., restart Fulbright Scholars & Peace Corps)
  - Coordinating COVID-19 vaccine roll-out under WHO + fiscal policy coordination?
  - re-opening consulates in Houston and Chengdu?
  - A 24-hr high-level hotline?
- **Uncertainties:**
  - Review & renegotiation of trade deals (phase one, CPTPP)
  - Tensions related to human rights issues
  - Restrictions on tech-related bilateral investments & trade (e.g., Huawei)

# With RCEP Complete, China Eyes CPTPP

Is President Xi Jinping's statement desire to join the CPTPP a signal of reconciliation to the new Biden administration or a bid to advance China's regional dominance?

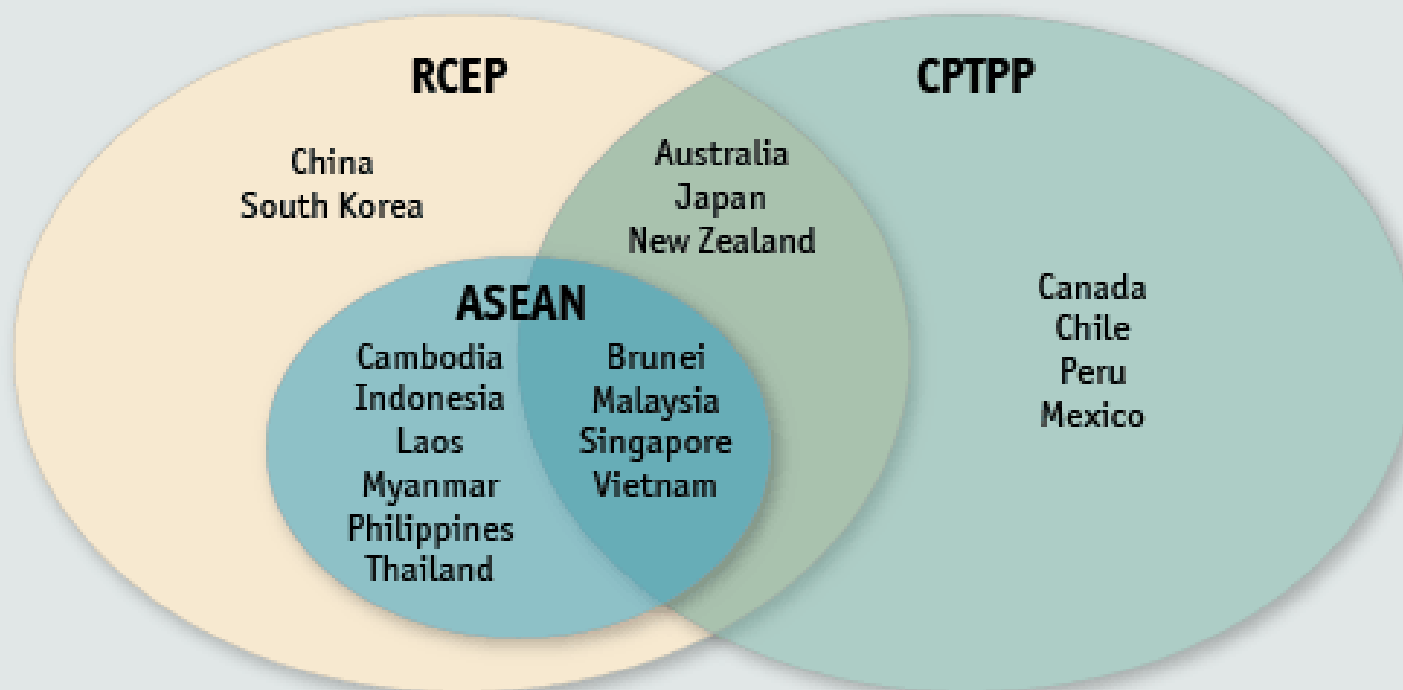
**THE | DIPLOMAT**

READ THE DIPLOMAT, KNOW THE ASIA-PACIFIC

By **Hemant Adlakha**

December 01, 2020

## Asia-Pacific trade groupings



Source: The Economist Intelligence Unit.

## Notable Omissions:

USA for TPP

India from RCEP

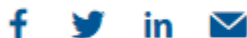
## Biden picks longtime China critic Katherine Tai as top U.S. trade official

PUBLISHED THU, DEC 10 2020-10:36 AM EST UPDATED THU, DEC 10 2020-10:36 AM EST



Thomas Franck  
@TOMWFRANCK

SHARE



### KEY POINTS

- If confirmed, Tai would inherit a Cabinet-level position tasked with enforcing U.S. import rules and brokering trading terms with China and other U.S. partners.
- Though Tai may favor greater cooperation with allies, her leadership as USTR wouldn't necessarily signal a change to the tougher stance toward China.
- Biden has said he wouldn't immediately remove tariffs on China as his administration reviews the deal the Trump administration brokered with Beijing.



## Des Moines Register

POLITICS

## President-elect Joe Biden introduces Iowa's Tom Vilsack as the nation's next agriculture secretary

**Donnelle Eller** Des Moines Register

Published 12:10 p.m. CT Dec. 11, 2020 | Updated 4:12 p.m. CT Dec. 11, 2020

## MEYER TO SUCCEED JOHANSSON AS USDA CHIEF ECONOMIST

By **Chuck Abbott**

12/15/2020

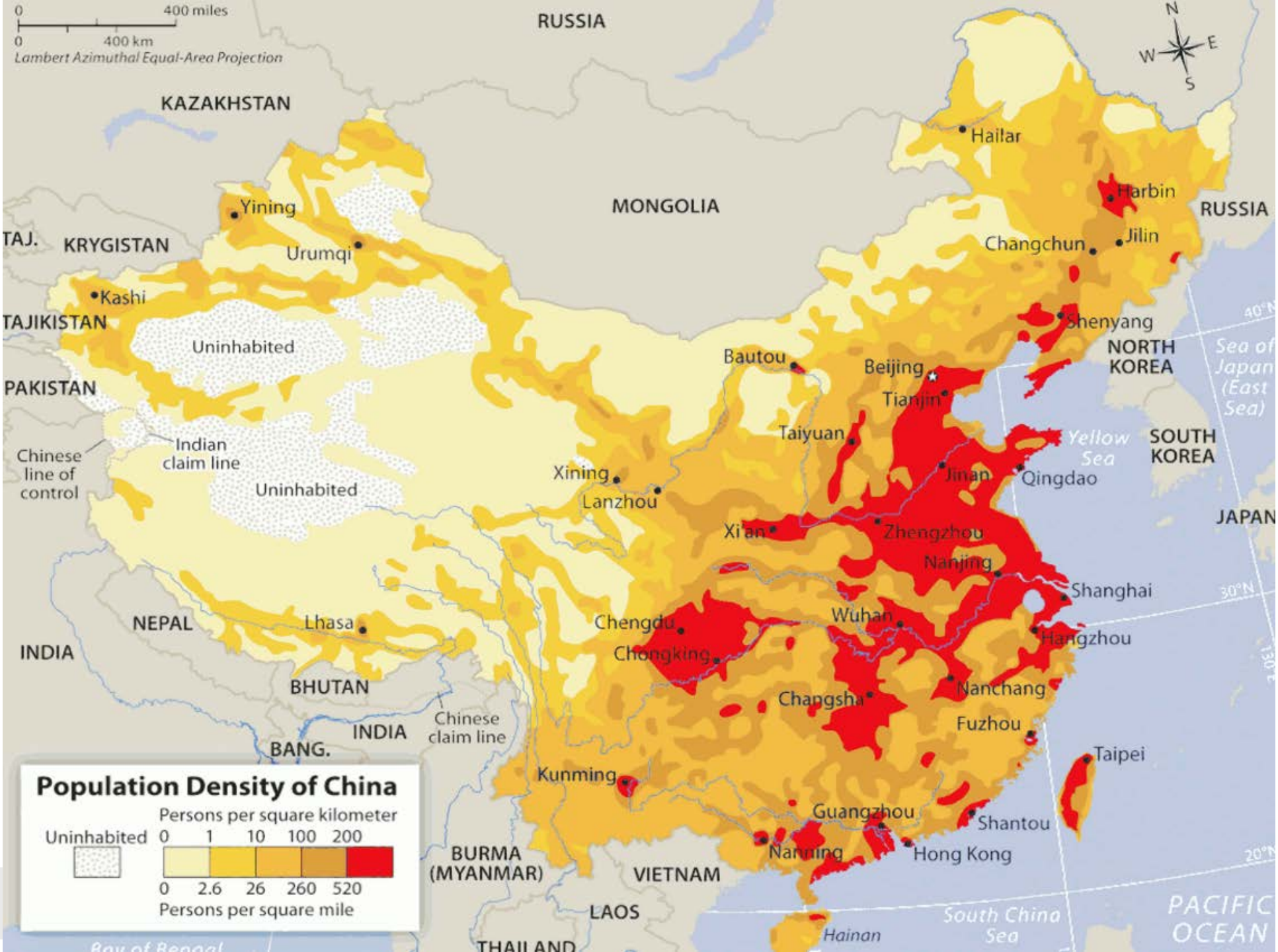
The associate director of a University of Missouri think tank, Seth Meyer, will become USDA chief economist at the end of January, succeeding Rob Johansson, who held the post since 2015, said Agriculture Secretary **Sonny Perdue** on Monday. As chief economist, Meyer will be responsible for USDA's agricultural forecasts and projections and will advise the agriculture secretary on the economic impact of legislation and regulations.



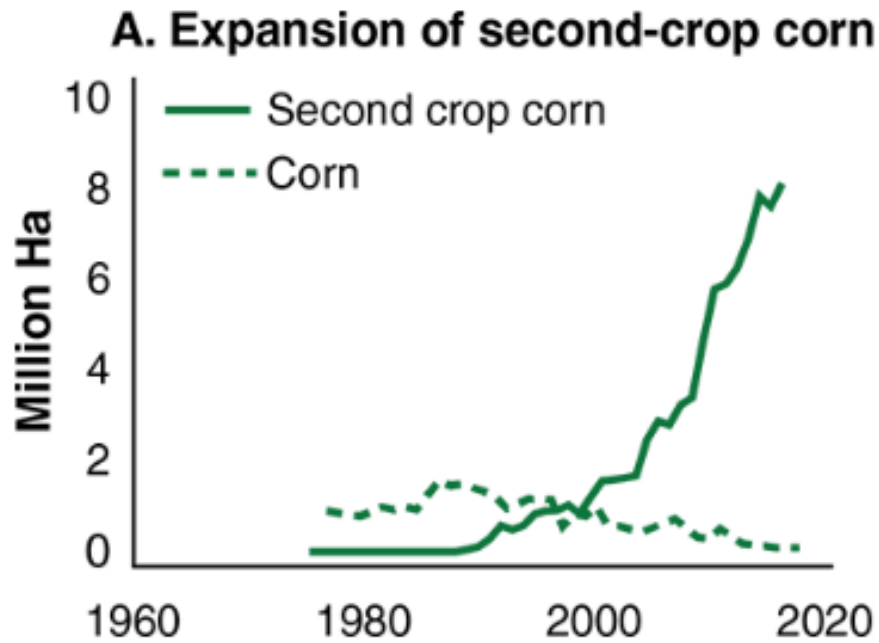


# Commodity Agriculture is Comparative Advantage for U.S., not China





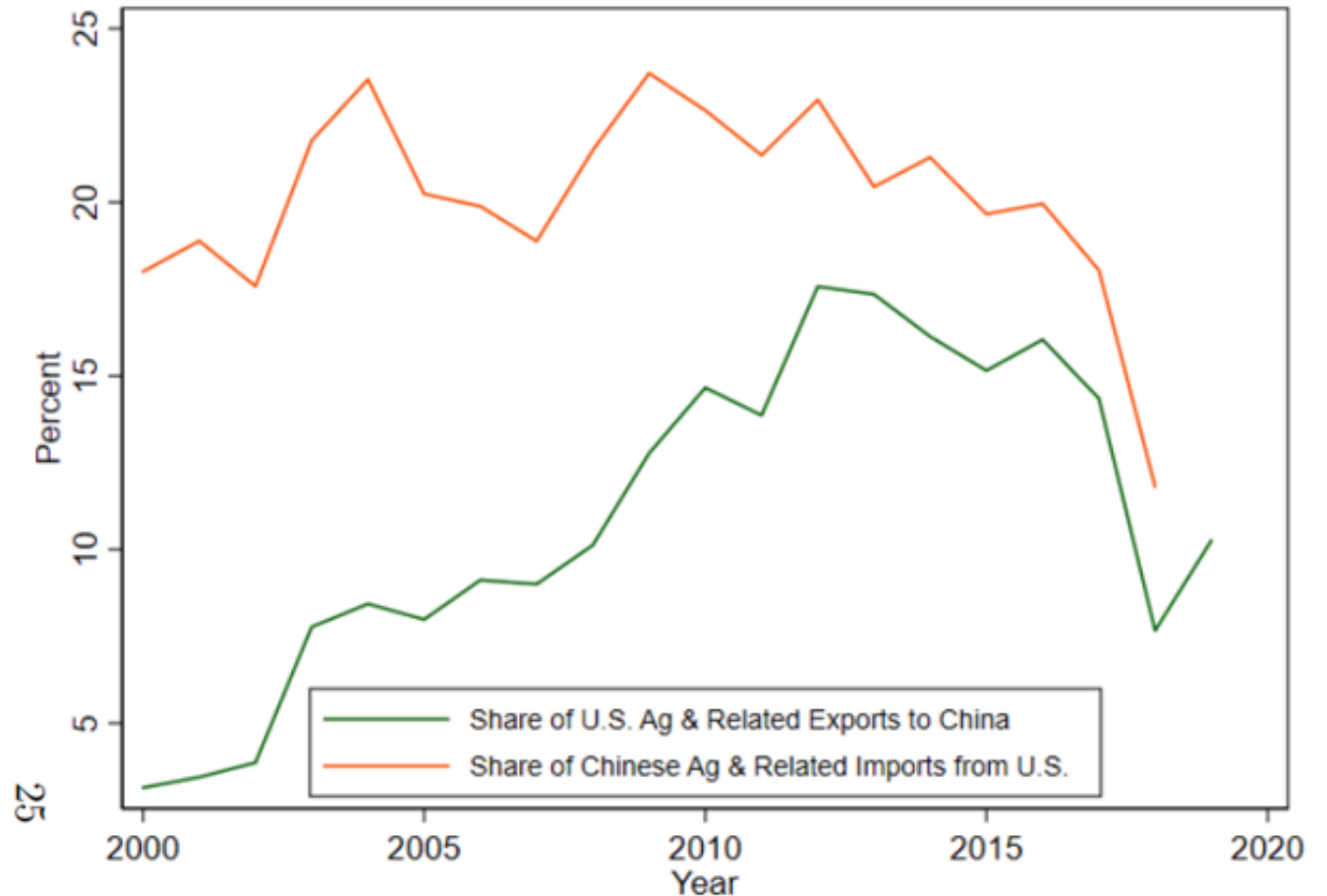
# China's Diversification away from U.S. began well before 2018, and got accelerated from the trade war



**Soy-corn Double-cropping to the Brazilian Savanna**

Guilherme DePaula ([gdepaula@iastate.edu](mailto:gdepaula@iastate.edu))

**Spring 2019 APR**



(a) Significance of U.S.-China agricultural trade



# China is a Country of Rapid Change



## High Speed Rail

South China Morning Post

Tech / Enterprises

### Meet the man behind one of China's biggest agricultural drone makers

- Demand for agricultural drones is rising because of labour shortages in China
- Agricultural drones are used for crop monitoring as well as pesticide spraying

Topic | Drones



Celia Chen

Published: 7:00

<https://youtu.be/8ZbhJT6NinM>



IOWA STATE UNIVERSITY  
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3-min YouTube video about  
China's Pesticide-spraying  
drones



# China moves toward commercialization of GMO corn and soy

BY JUSTIN CREMER

JANUARY 23, 2020

 **South China Morning Post**

Economy / Global Economy

## China food security: Beijing calls for biotech breakthrough to improve seed industry

- China's top leaders have signalled a push to improve the nation's seed industry as part of a campaign to ensure food security
- Concerns about food supply have heightened this year due to reports of grain shortages and disruptions from the pandemic

## China moves on to tackle the 'chips' for agriculture

By Chu Daye

Published: Dec 30, 2020 11:51 PM Updated: Dec 30, 2020 11:53 PM



 **Orange Wang**

Published: 7:30am, 23 Dec, 2020 ▼

# China is a Country of Rapid Change

With its CRISPR revolution, China becomes a world leader in genome editing

By Jon Cohen, Nirja Desai | Aug. 2, 2019, 8:00 AM

To feed its 1.4 billion, China bets big on genome editing of crops

By Jon Cohen | Jul. 29, 2019, 8:00 AM

China's CRISPR push in animals promises better meat, novel therapies, and pig organs for people

By Jon Cohen | Jul. 31, 2019, 8:00 AM

Science

## China Takes Its Pigs to the Futures Market

New hog futures may smooth out some of the wild swings in Chinese markets

THE WALL STREET JOURNAL.



What  
is this?

# China set to approve domestic GMO corn, soy crop varieties

## CONTRIBUTORS

Dominique Patton — [Reuters](#)  
Hallie Gu — [Reuters](#)

## PUBLISHED

JAN 11, 2021 3:17AM EST

China's Ministry of Agriculture and Rural Affairs said on Monday it was set to approve the safety of a new genetically modified (GMO) corn variety and a GMO soybean, both produced by local company Beijing Dabeinong Technology Group Co Ltd 002385.SZ. China approved three domestically designed GMO crops as safe, the first to gain a safety certificate in a decade.

COMMODITIES    DECEMBER 19, 2020 / 12:10 AM / UPDATED 2 MONTHS AGO

## China signals GM, biotech push in key policy statement



According to a statement issued after the annual Central Economic Work Conference held on Dec. 16-18, China needs to make better use of science and technology to achieve a “turnaround” in its seed industry.

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“The key to ensuring food security lies in implementing the strategy of storing grain in the ground and storing grain in technology,” according to the statement,



# Changes in my hometown?

Greenhouse – plastic film -  
Shandong Province



## Chilean cherries a hit with festive shoppers

By Ouyang Shijia | China Daily | Updated: 2019-02-12 09:45



Consumers buy cherries at a supermarket in Guangzhou, Guangdong province. [Photo by Li Zhihao/For China Daily]

## China's First Live Hog Futures to Begin Trading on Jan. 8

A promotional image for Shenxian Vegetables. At the top, there is a logo with a basket of vegetables and the text "莘县蔬菜 SHENXIAN VEGETABLES | 中国蔬菜第一县 |". Below the logo, the text "莘县蔬菜·健康生态" is displayed. In the center, a man in a suit is speaking at a podium, flanked by two women. One woman is holding a green vegetable. Below them, the text "山东聊城莘县县长 高志国" is written. At the bottom, there is a large yellow banner with the text "给宝宝们送福利". Below the banner, there is a green banner with the text "新粉! 春天816 买买买". At the very bottom, there is a white banner with the text "In China, 500+ million consumers shop on mobile phones, even before the coronavirus".



# Chinese Lesson Time

美国

牛

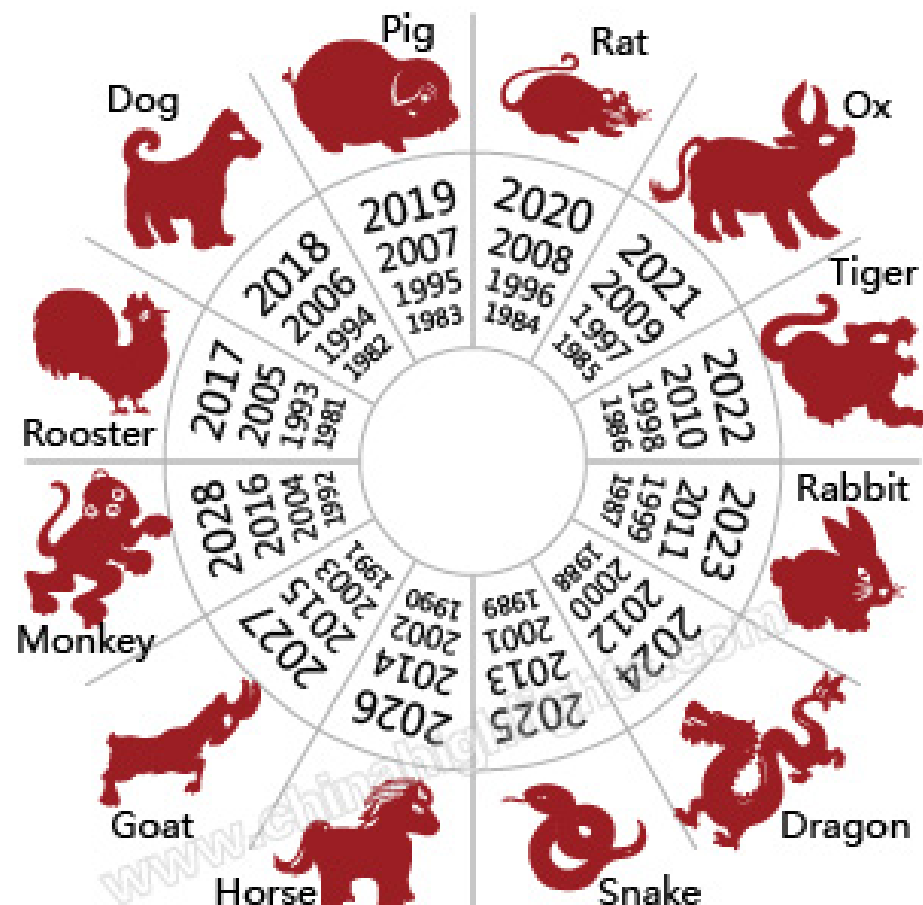
**The Year of Ox (pronunciation: New)**

## Year of the Metal Ox



February 12, 2021, marks the beginning of the Year of the Ox.

ROSLAN RAHMAN/AFP/AFP via Getty Images

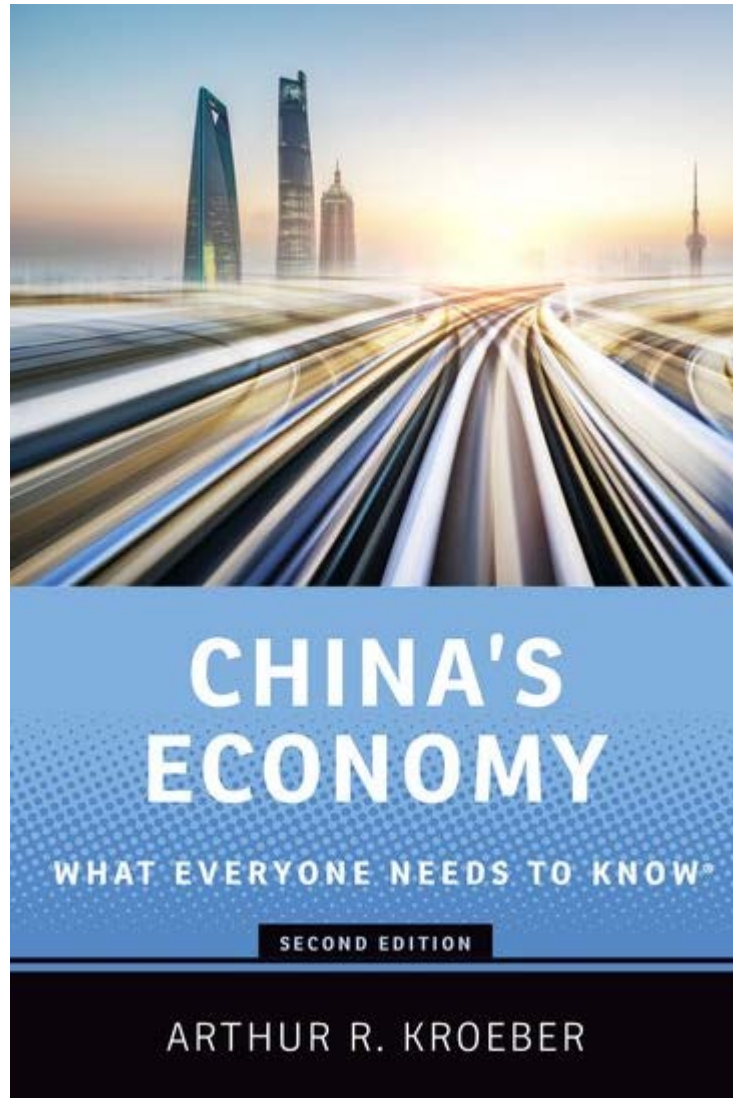


In the Chinese Zodiac, the Ox is very hardworking and methodical. 2021 is going to be a year when work will get rewarded

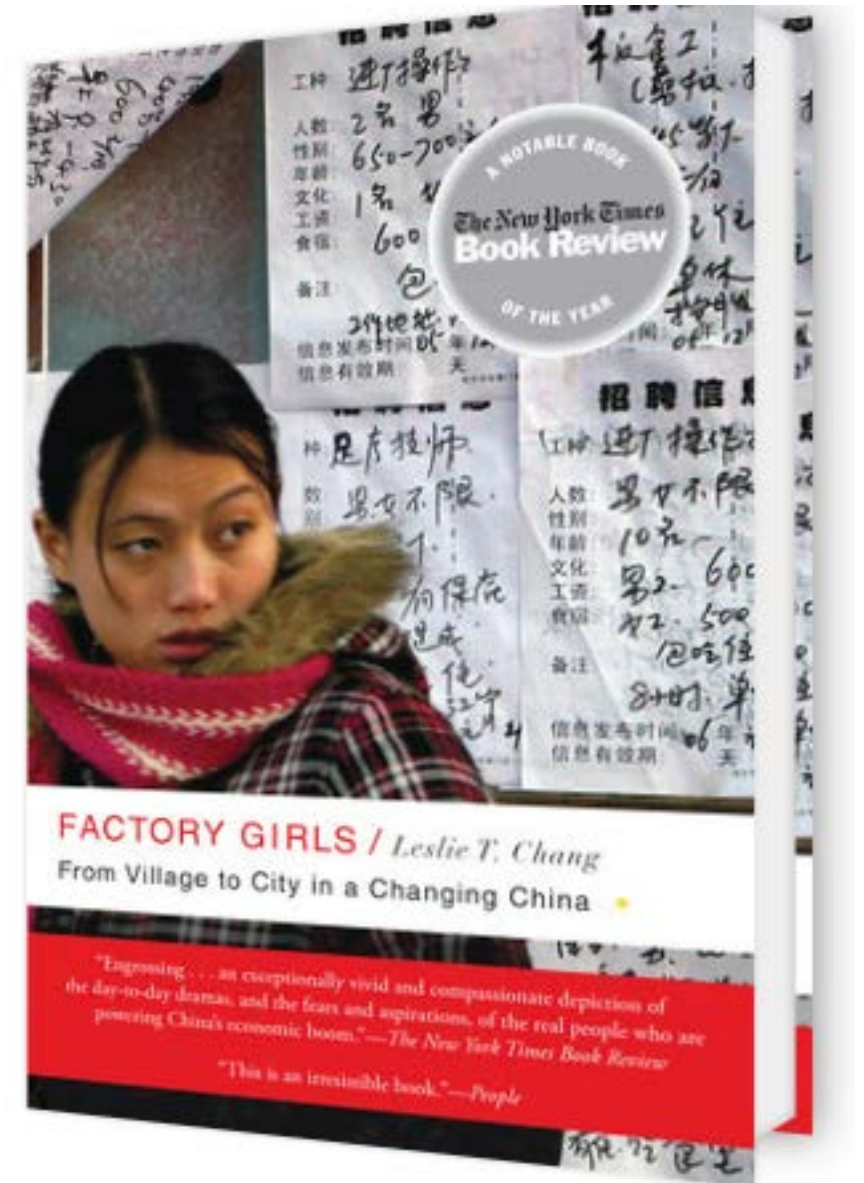
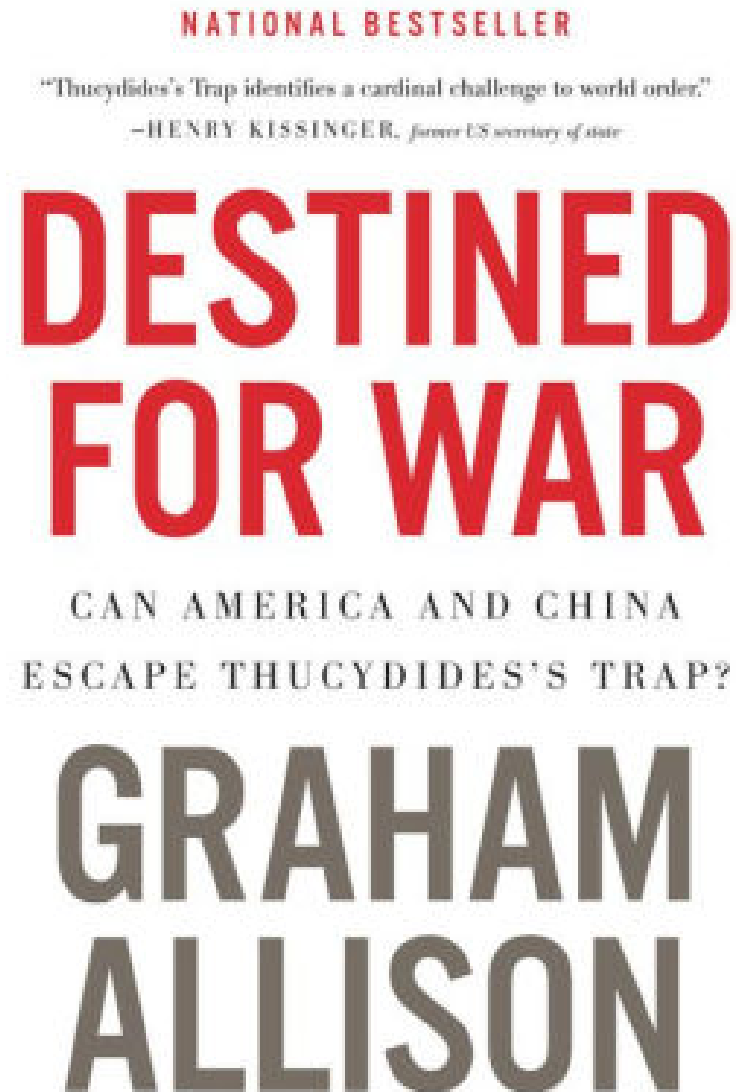
[www.thechinesezodiac.org/chinese-horoscope-2021-year-of-the-metal-ox/](http://www.thechinesezodiac.org/chinese-horoscope-2021-year-of-the-metal-ox/)

**Lucky Colors of 2021:**  
white, yellow and green

# Learn more about contemporary Chinese economy



Will publish on July 1, 2020





# AGree NewsFeed



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 **South China Morning Post**  
[\*\*www.scmp.com\*\*](http://www.scmp.com)

# Ag Decision Maker

February 2020





# Thank You!



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Overview ISU Survey Graphs Interactive Maps Ownership Downloads Resources FAQ News History Archive

### 2019 ISU Land Value Survey


**2019 ISU Land Value Survey**


The 2019 ISU Land Value Survey shows a 2.3 percent increase in average Iowa farmland values from November 2018 to November 2019. The average statewide value of an acre of farmland is now estimated at \$7,432. This modest increase, which barely exceeds the pace of inflation, is the second rise over the past six years, but still represents a 15 percent decrease from the 2013 peak in nominal land values, or a 23 percent drop in inflation-adjusted values.

**2017 Iowa Farmland Ownership & Tenure Survey Paper Copy Available for Order (\$5 Only)**

The new, 60-page **2017 Iowa Farmland Ownership and Tenure Survey report is available for order at the Extension Store** for only \$5 each paper copy. This is a unique survey across the nation which provides statistically representative information on many aspects of land ownership, tenure and transitions in Iowa. For example, the survey finds that 60% of Iowa land is owned by people 65 years or older, 82% of Iowa land is owned free of debt, and 29% of all acres is primarily owned for family or sentimental reasons.

1. What are you interested in?

 find more land value data

 recent analysis & contact

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CARD is a center located within the College of Agriculture and Life Sciences at Iowa State University.

[www.card.iastate.edu/farmland](http://www.card.iastate.edu/farmland)

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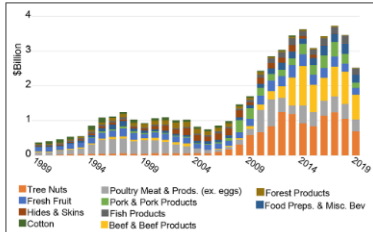
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### China Ag Center · Publications

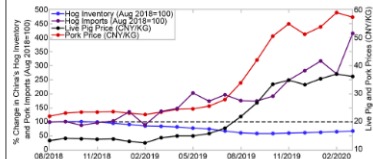
**Xi He and Wendong Zhang, 2020. "Implications of Hong Kong's Special Status Revocation for Agricultural Trade between the United States, Hong Kong, and Mainland China." *Agricultural Policy Review*. Center for Agricultural and Rural Development, Iowa State University.**

In 1992, the United States granted Hong Kong status as a customs territory separate from mainland China. On June 29, 2020, however, the US Department of Commerce withdrew that status due to recent tensions between China and the United States. Hong Kong, as the world's largest re-exporting port, plays a large intermediary role in US-China trade, and the revocation of its special status may provoke China into taking retaliatory economic and/or political actions. He and Zhang examine trends in Hong Kong's import/export of US agricultural products and how that trade may be affected. They find that the revocation itself is not likely to directly affect US-China agricultural trade prospects much if neither China nor the United States responds with further actions.



**Chen-Ti Chen, Tao Xiong, and Wendong Zhang, 2020. "Large Hog Companies Gain from China's Ongoing African Swine Fever." *Agricultural Policy Review*. Center for Agricultural and Rural Development, Iowa State University.**

Since November 2018, China has reduced its hog and sow inventory by almost 32% due to ongoing outbreaks of African Swine Fever.



[www.card.iastate.edu/china](http://www.card.iastate.edu/china)