

PURDUE CENTER FOR COMMERCIAL AGRICULTURE

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What Do Farmers Have to Say About the Ag Economy?

That's where the Purdue-CME Group Ag Economy Barometer comes in

Each month we ask 400 farmers across the nation about

- **Conditions on their farm today**
- **Expectations for future conditions on their farm**
- **Short-run & longer run expectations for U.S. Ag Economy**
- **Desirability of making big investments now**
- **Responses to questions above are used to calculate the Ag Economy Barometer**
- **Additional questions posed each month to learn more about drivers of sentiment**

Who Do We Focus Our Nationwide Surveys On?

U.S. Farms by Value of Production

Value of Production	% of Farms	% of U.S. Production
Less than \$500,000	92%	19%
\$500,000 - \$999,000	4%	14%
\$1,000,000 - \$2,499,000	3%	23%
\$2,500,000 - \$4,999,000	1%	13%
\$5,000,000 or more	< 1%	32%
	8%	81%

Source: U.S. Department of Agriculture, 2012 Census of Agriculture

What Are Farmers Telling Us About The Ag Economy?

Ag Economy Barometer Survey Details

Monthly phone survey of 400 U.S. agricultural producers, focused on major crop & livestock enterprises

Not same producers each month, but characteristics of survey sample are held constant from month-to-month

Respondents value of production is \geq U.S.\$500,000

Respondents further stratified by enterprise based on *USDA's Census of Agriculture*

Representative of U.S. producers that provide vast majority of U.S. agricultural production

Survey accuracy is +/- 5% @ 95% confidence level for population we sample

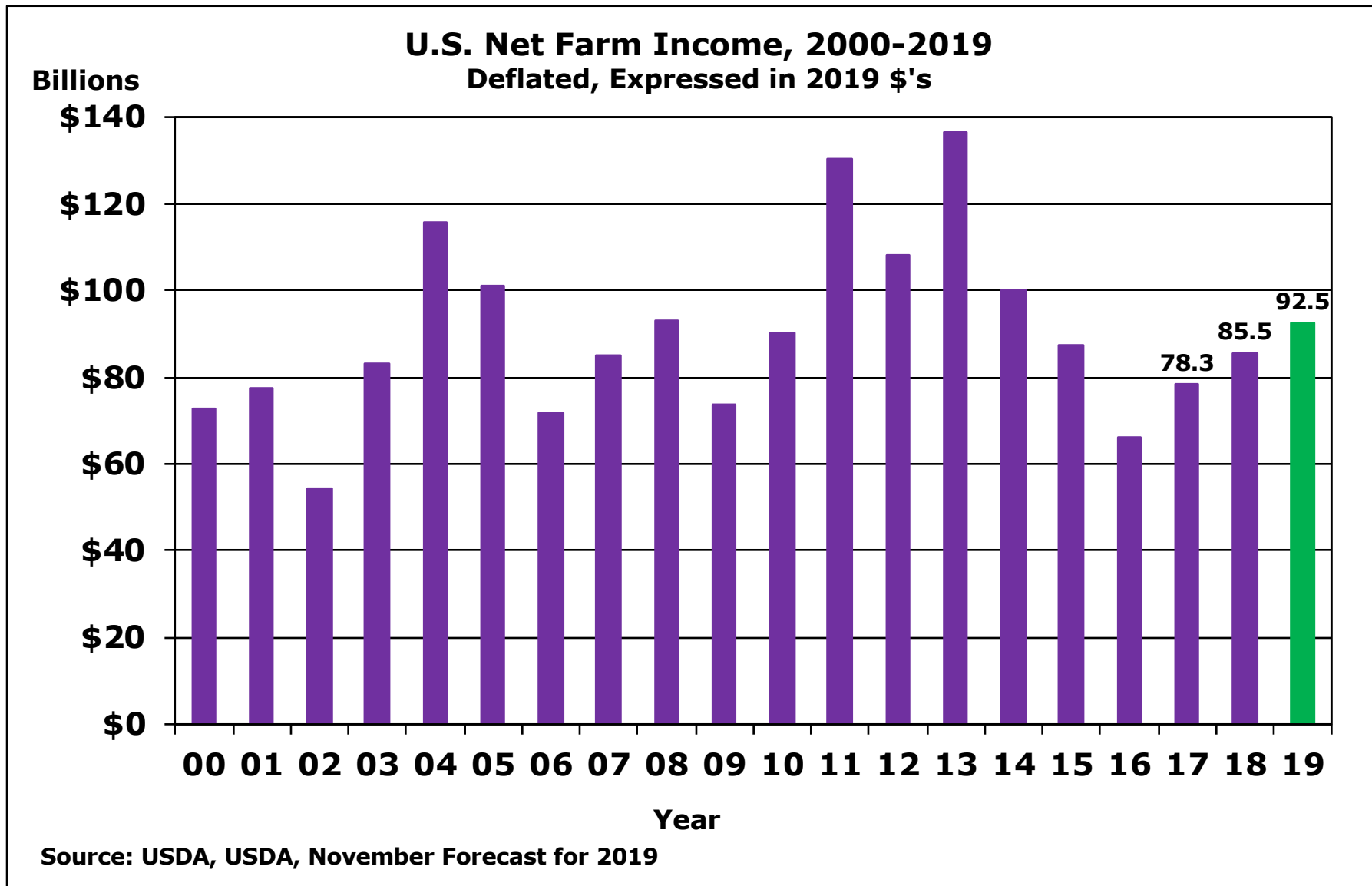
Report released on 1st Tuesday of each month

Survey Respondents By Enterprise Every Month

Corn/Soybeans	53%
Beef	19%
Wheat	14%
Hogs	6%
Dairy	5%
Cotton	<u>3%</u>
	100%

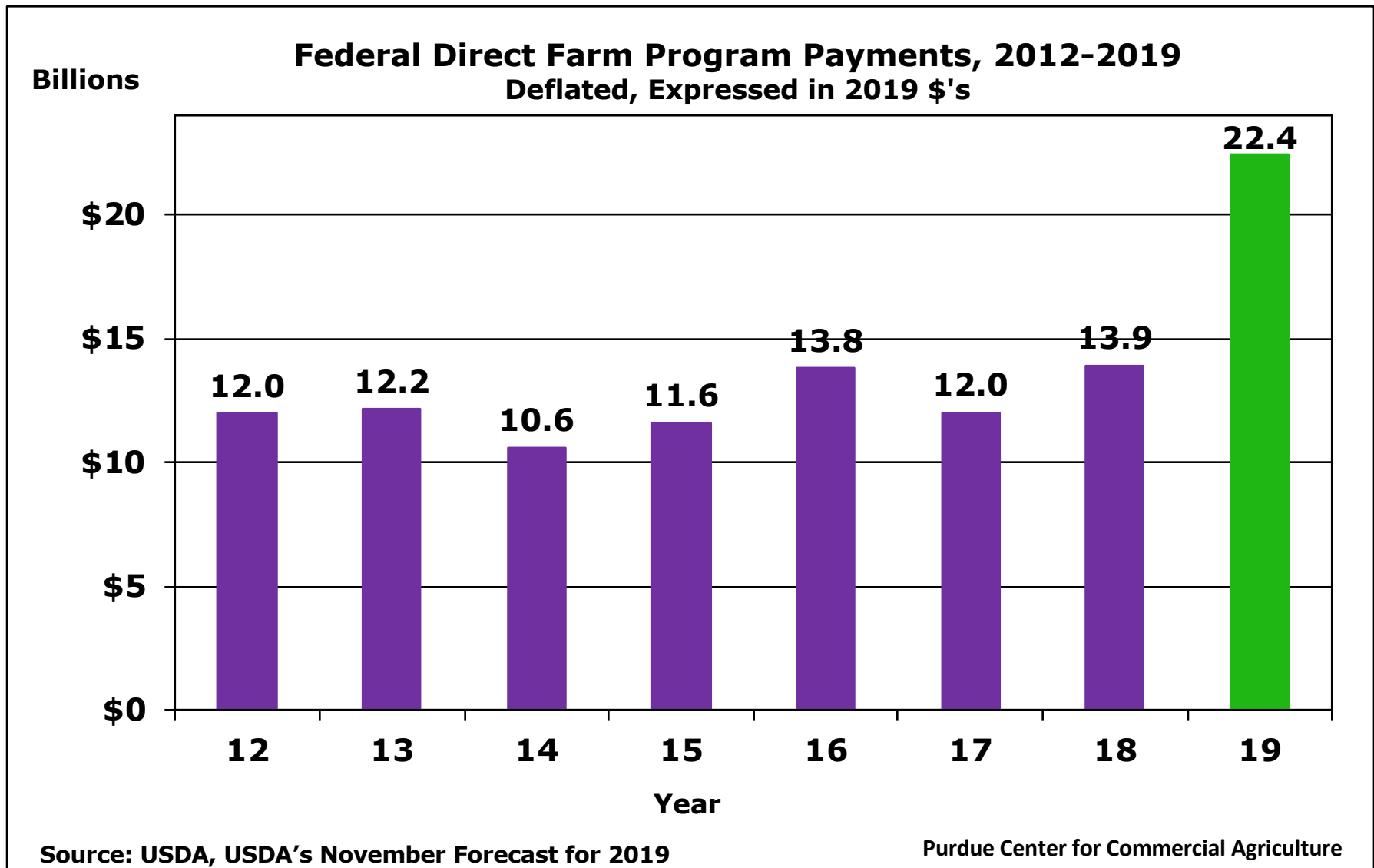
%'s are minimum targets since some farms are engaged in more than 1 enterprise

USDA Forecasts 3% Increase in Inflation Adjusted Net Farm Income



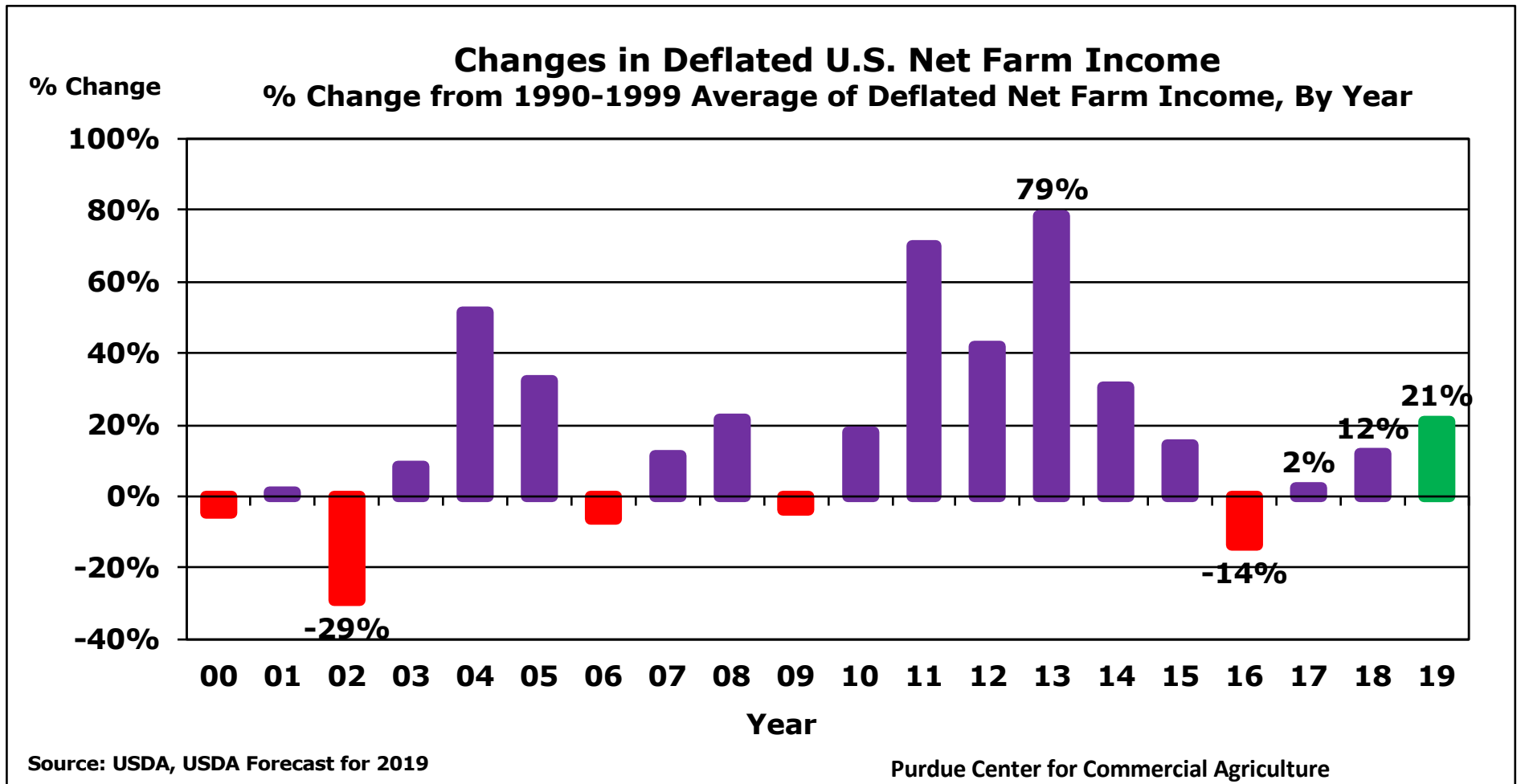
But 2019 Income Would Decline Without An Increase in Government Payments

Inflation Adjusted Government Payments Up 61% in 2019

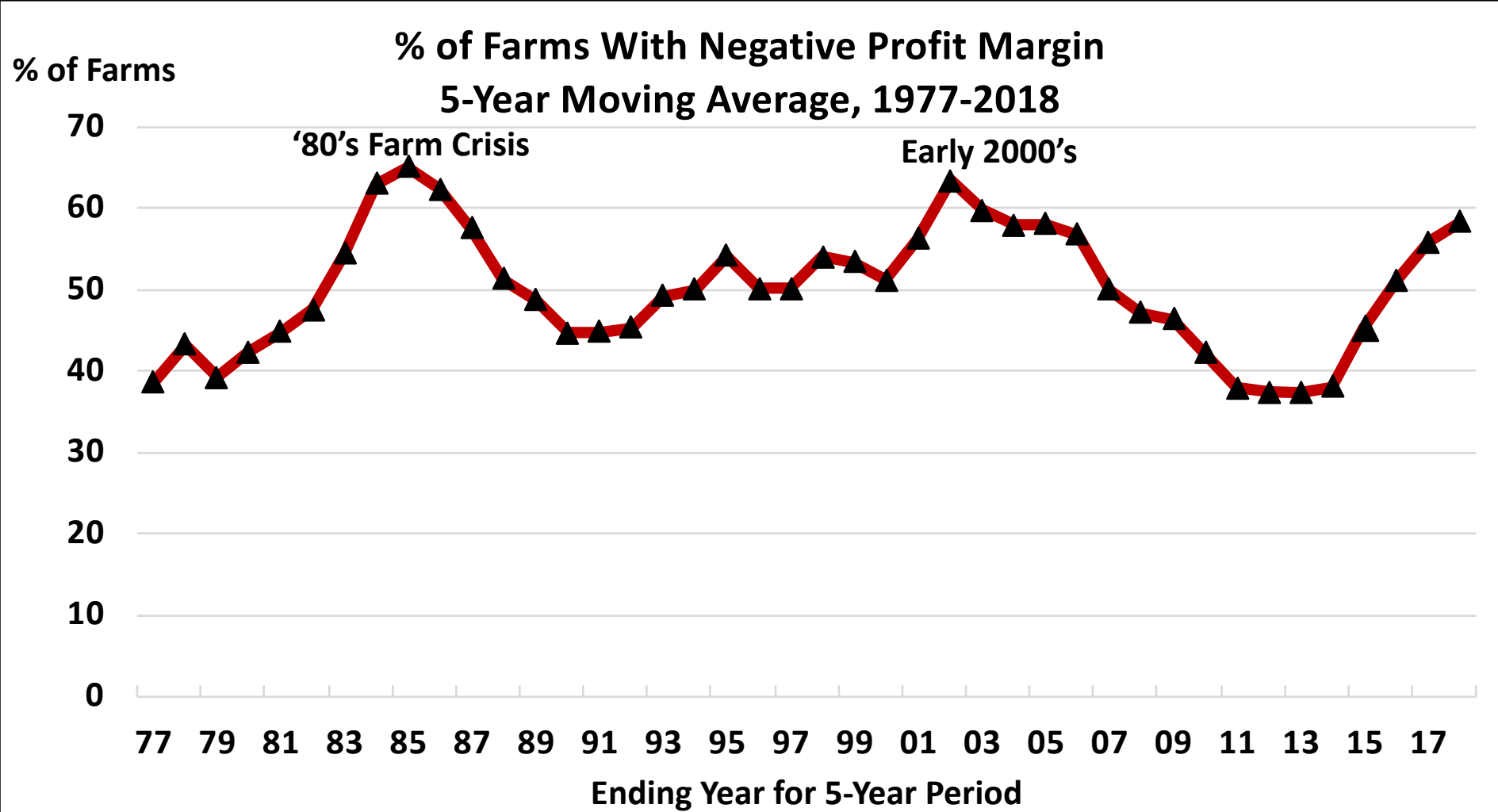


Some Perspective on Farm Income

Comparing the 2000s to the 1990s



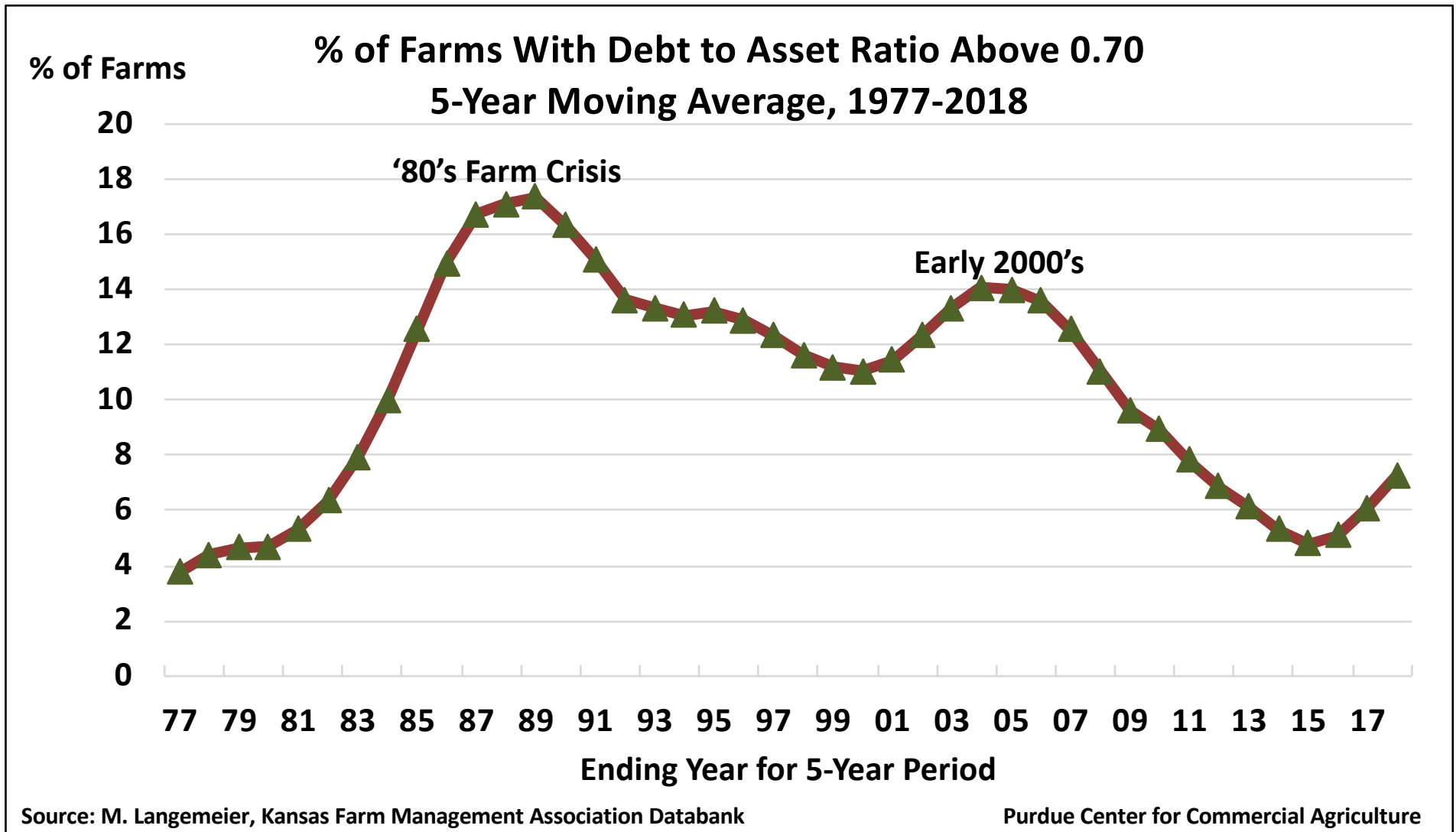
More Farms With Negative Profit Margins



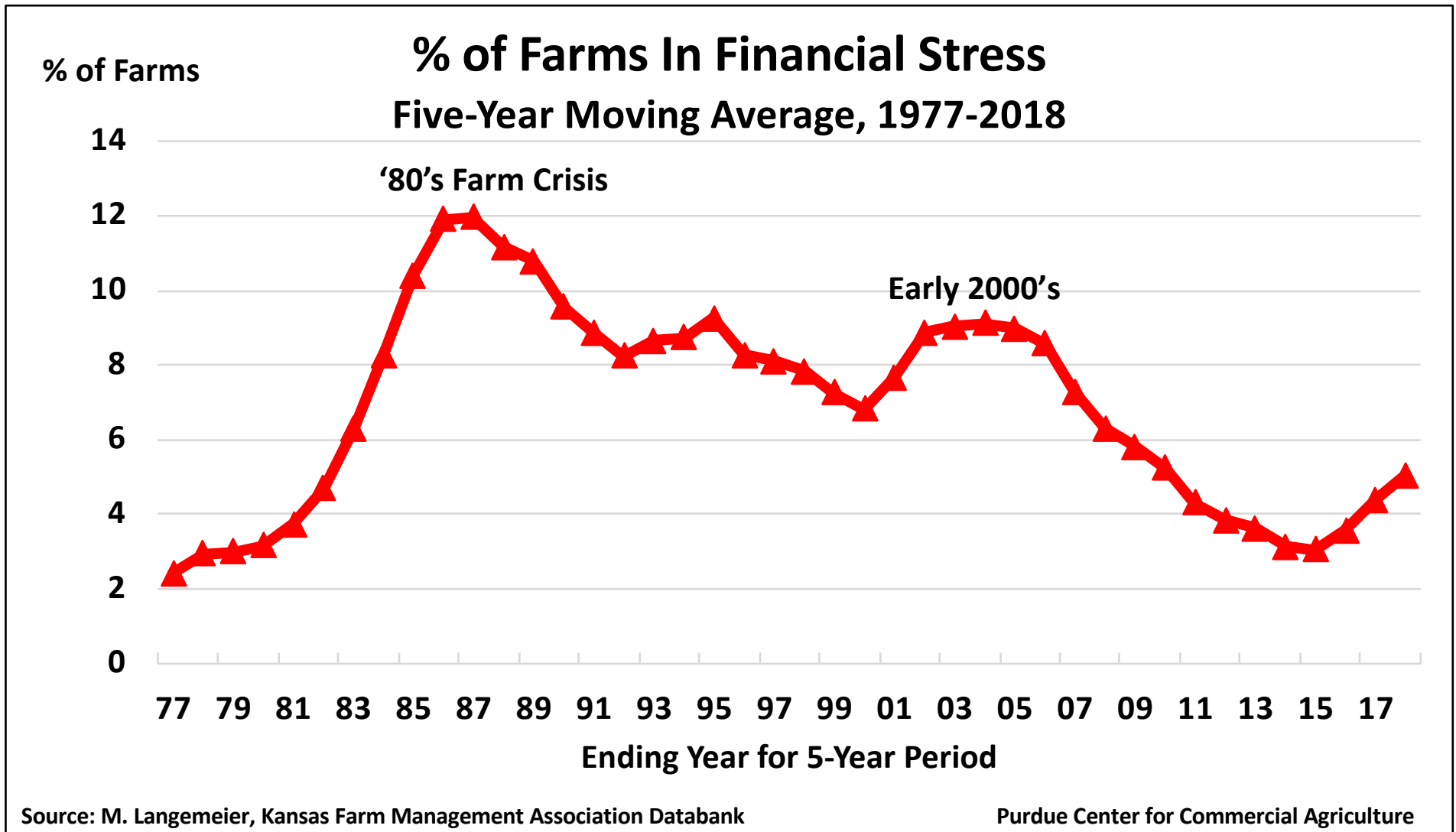
Source: M. Langemeier, Kansas Farm Management Association Databank

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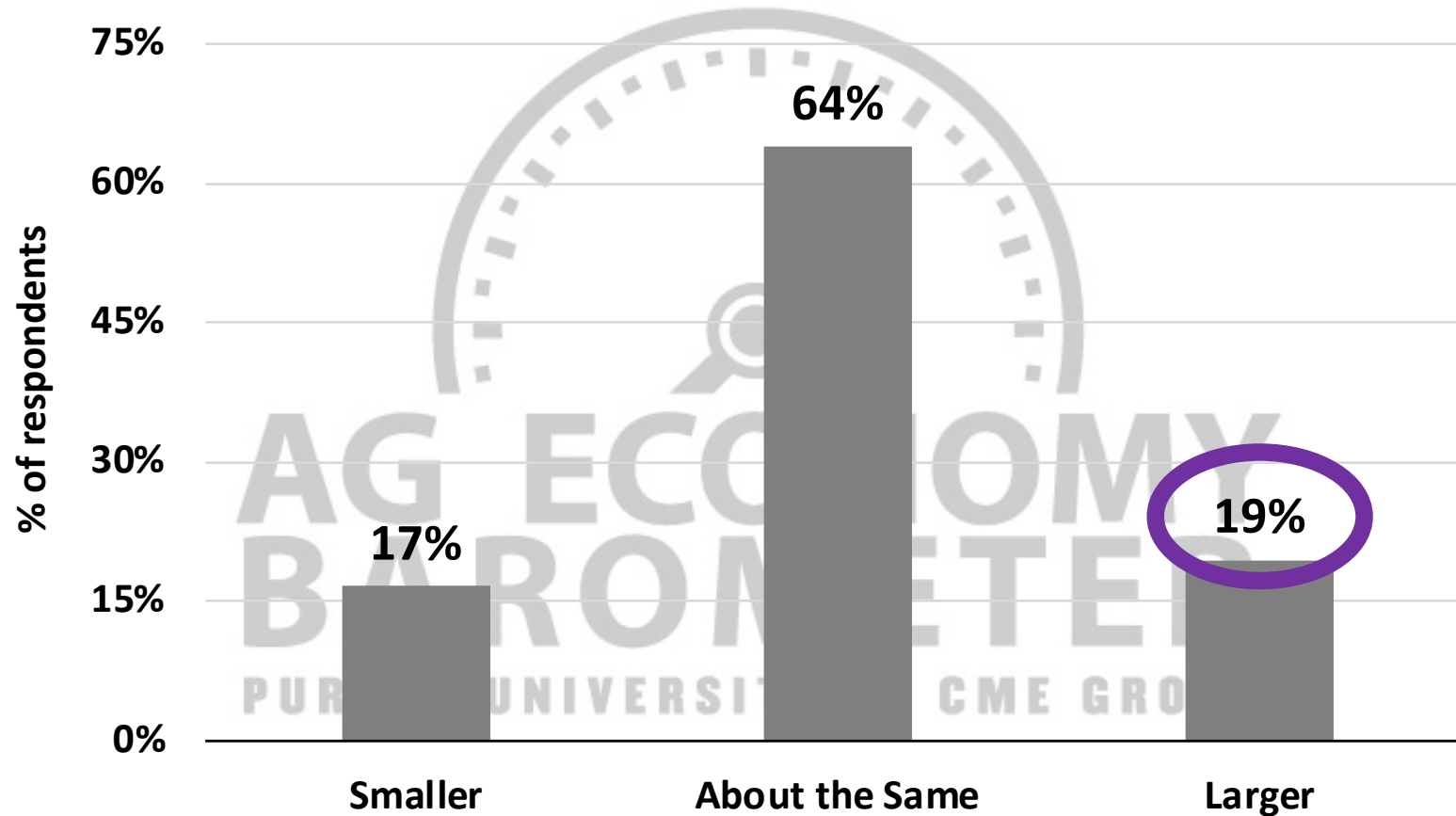
% of Farms With High Debt/Asset Ratios Climbing But Remains Lower Than In The Past



And Farms in Financial Stress Climbing But Remains Below Most of the Last 3 Decades

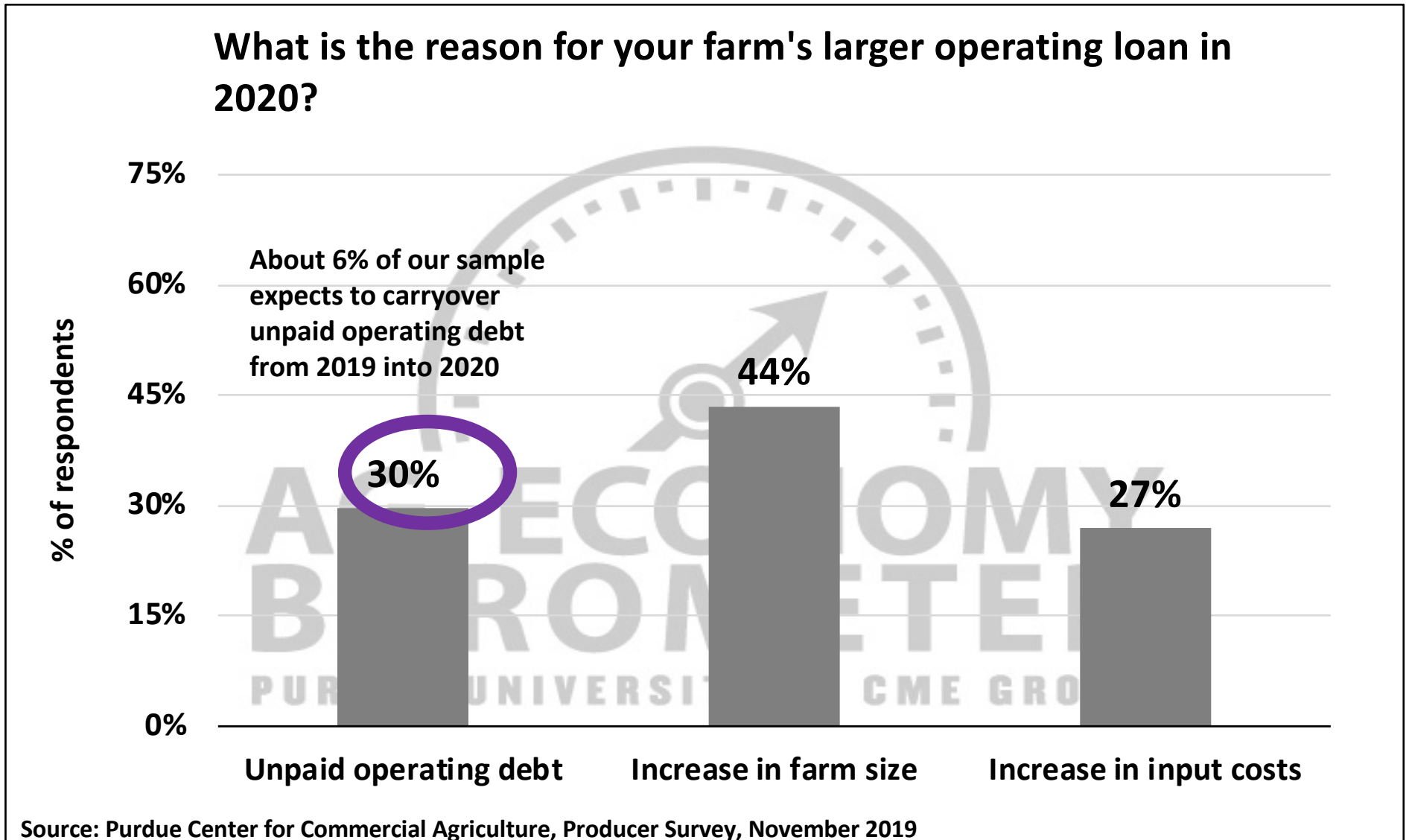


Compared to 2019, do you expect the size of your farm's operating loan to be larger, smaller, or about the same?



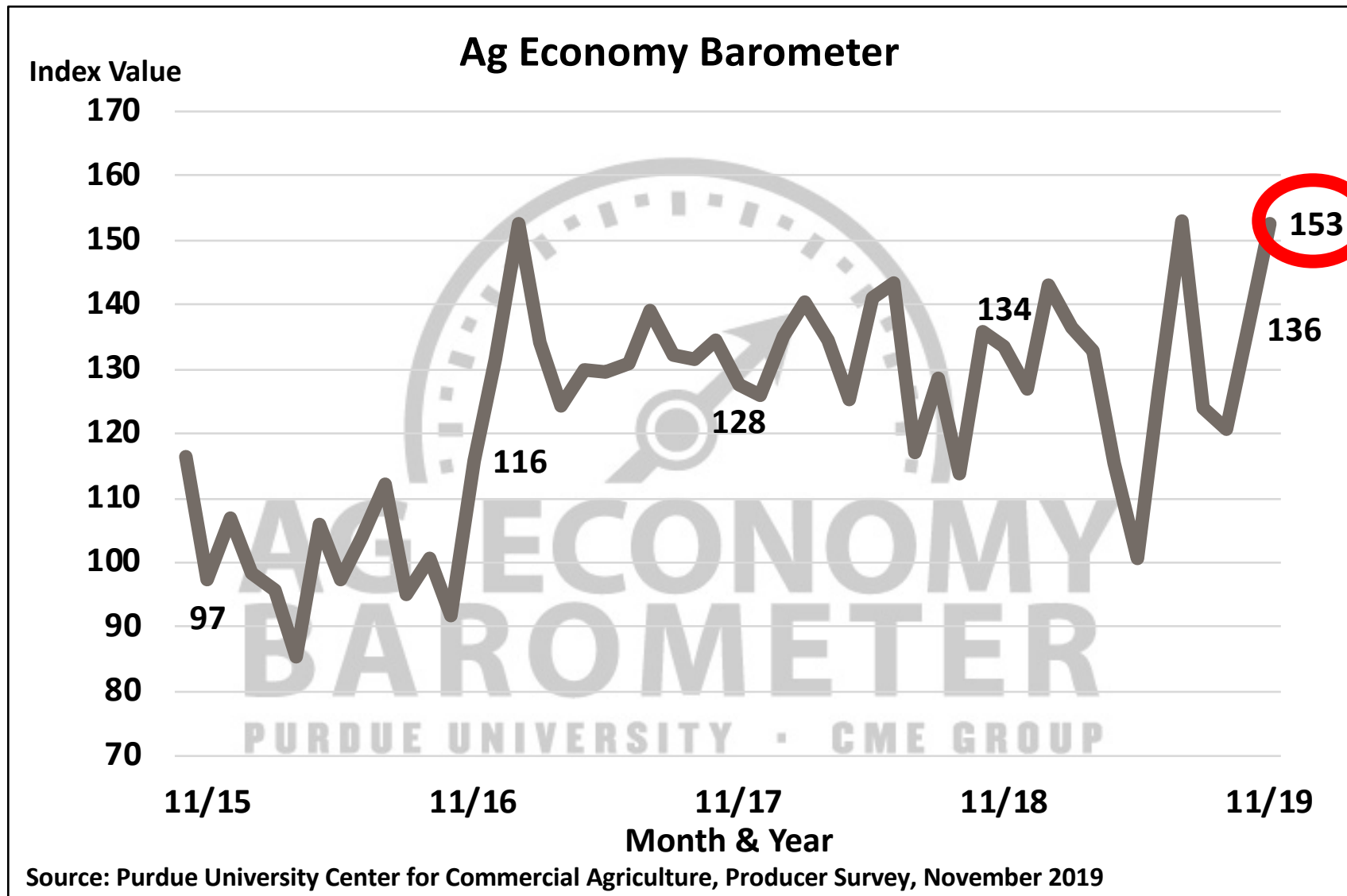
Source: Purdue Center for Commercial Agriculture, Producer Survey, November 2019

Carrying Over Operating Debt Is A Sign of Financial Stress

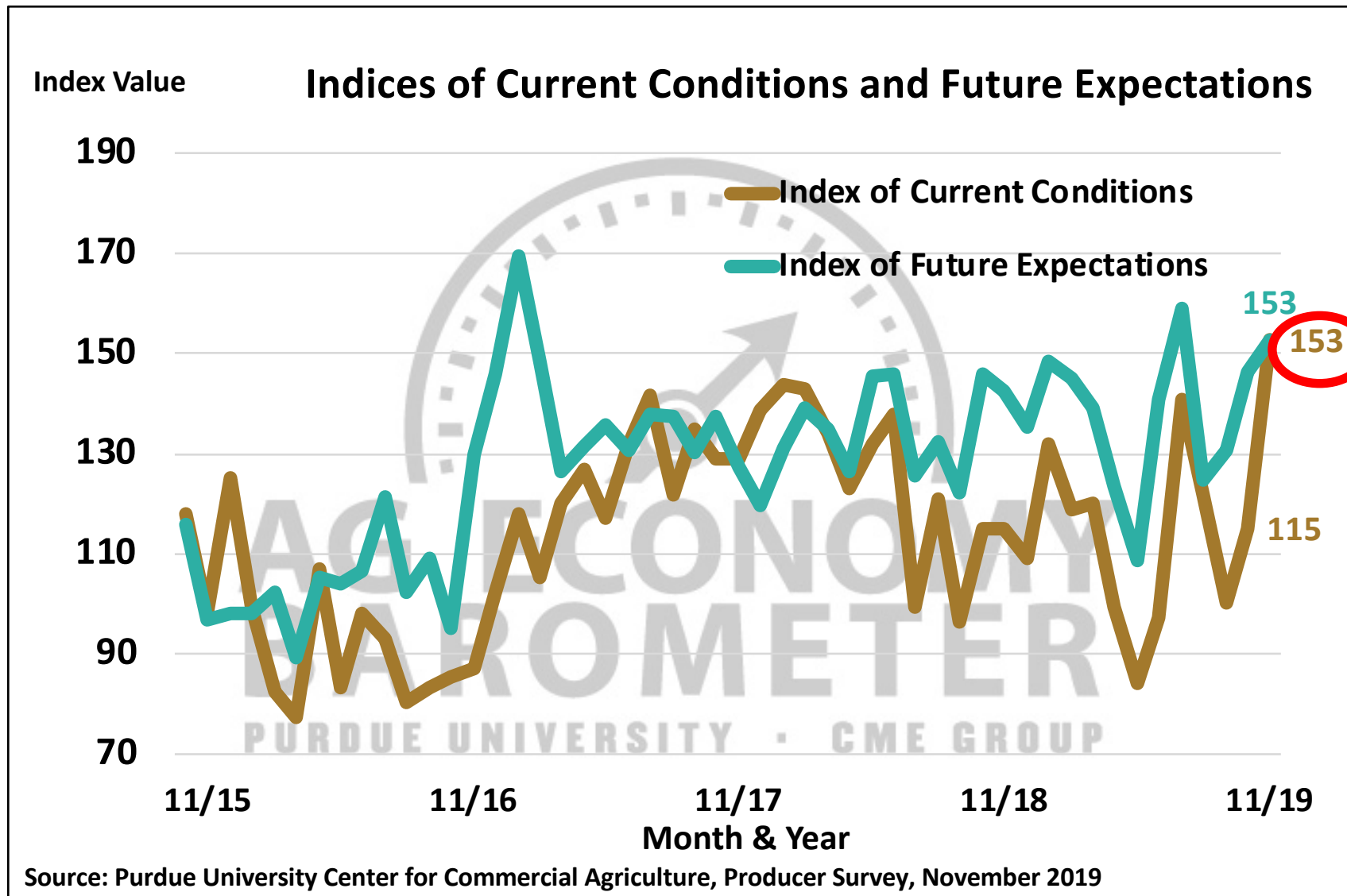


November Purdue-CME Group Ag Economy Barometer

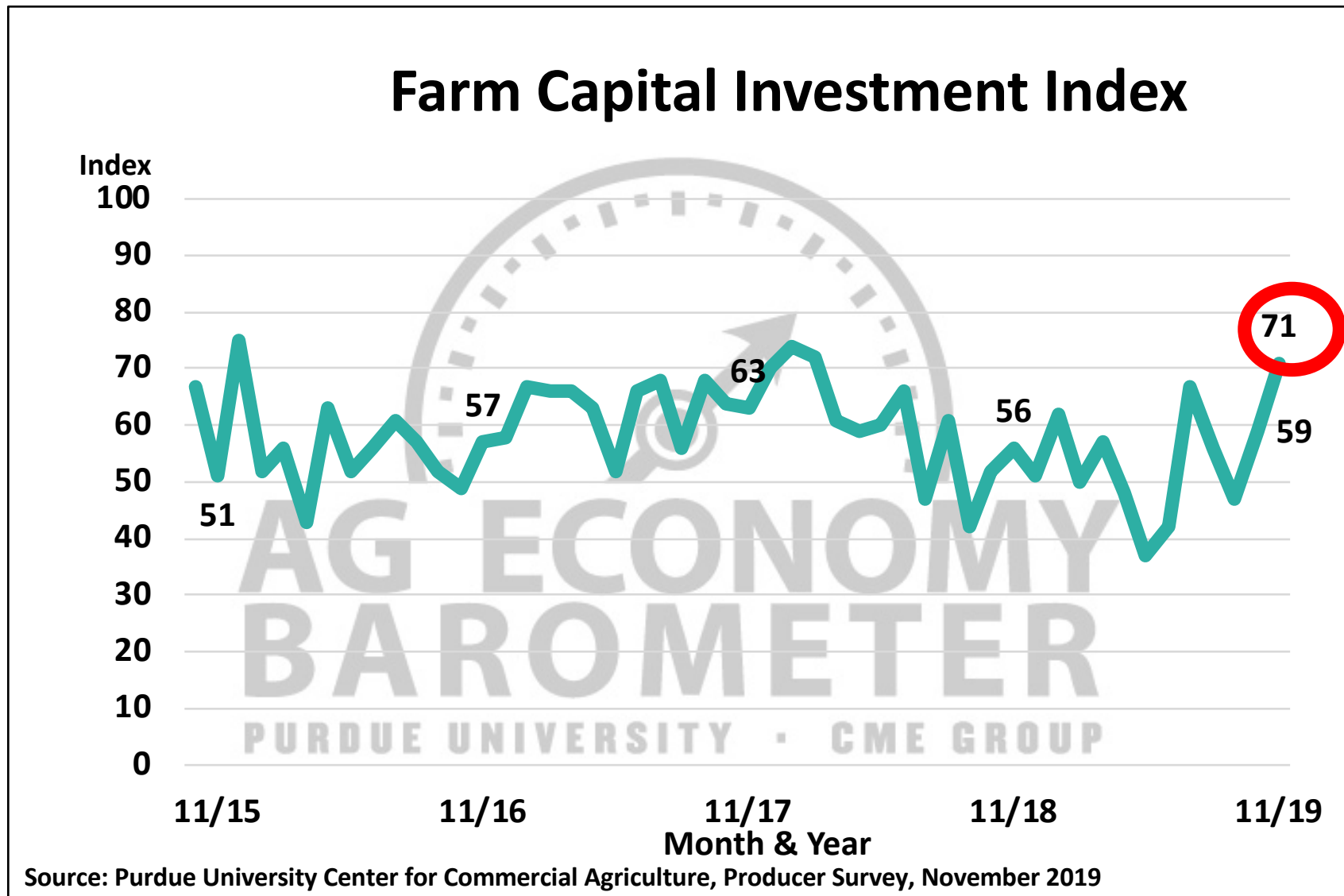
Most Recent Survey Conducted in Mid-November, Report Released on Dec. 3



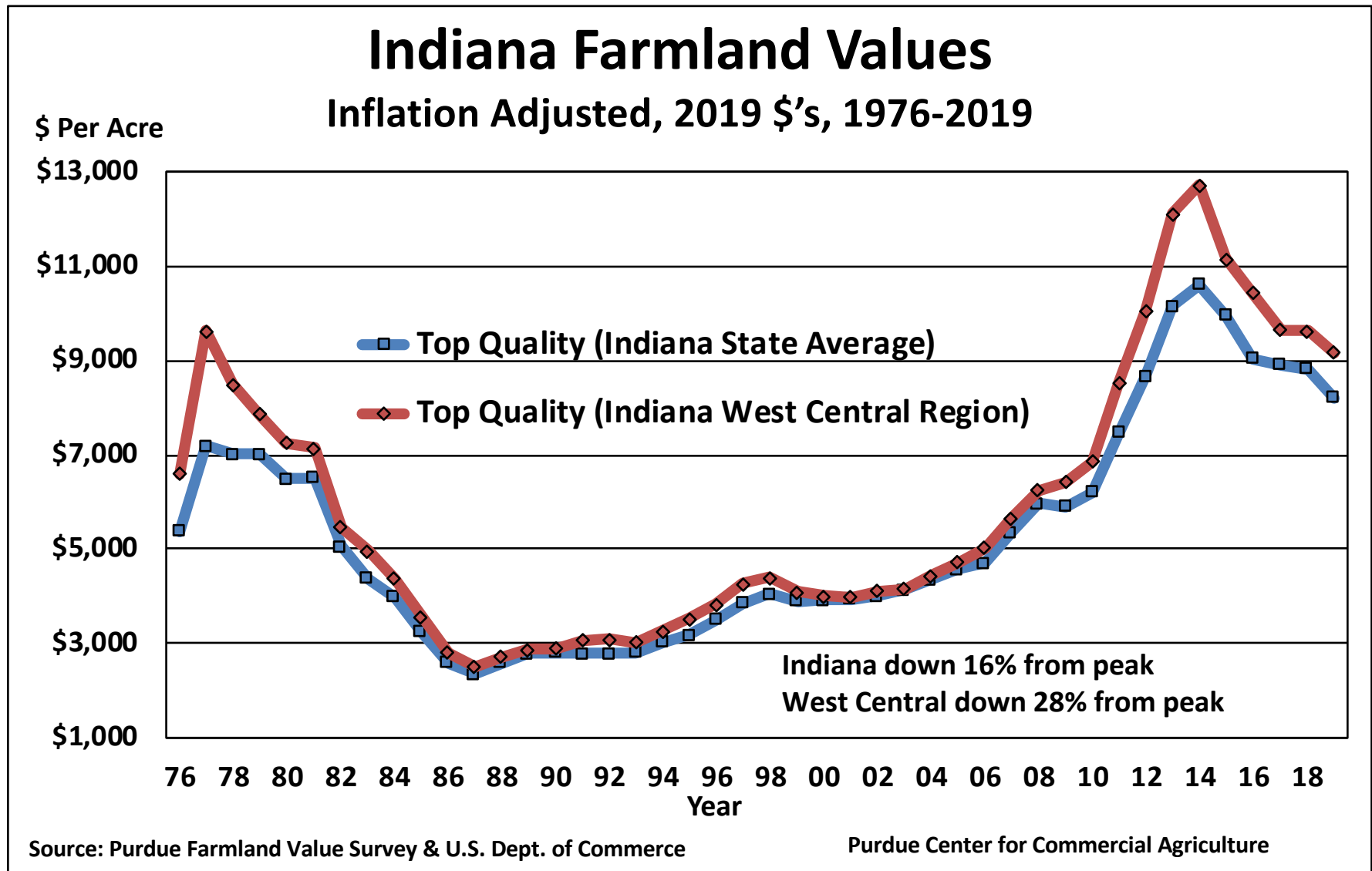
As Fall Harvest Wrapped Up Farmers Became More Optimistic About Both the Future & Especially Current Conditions



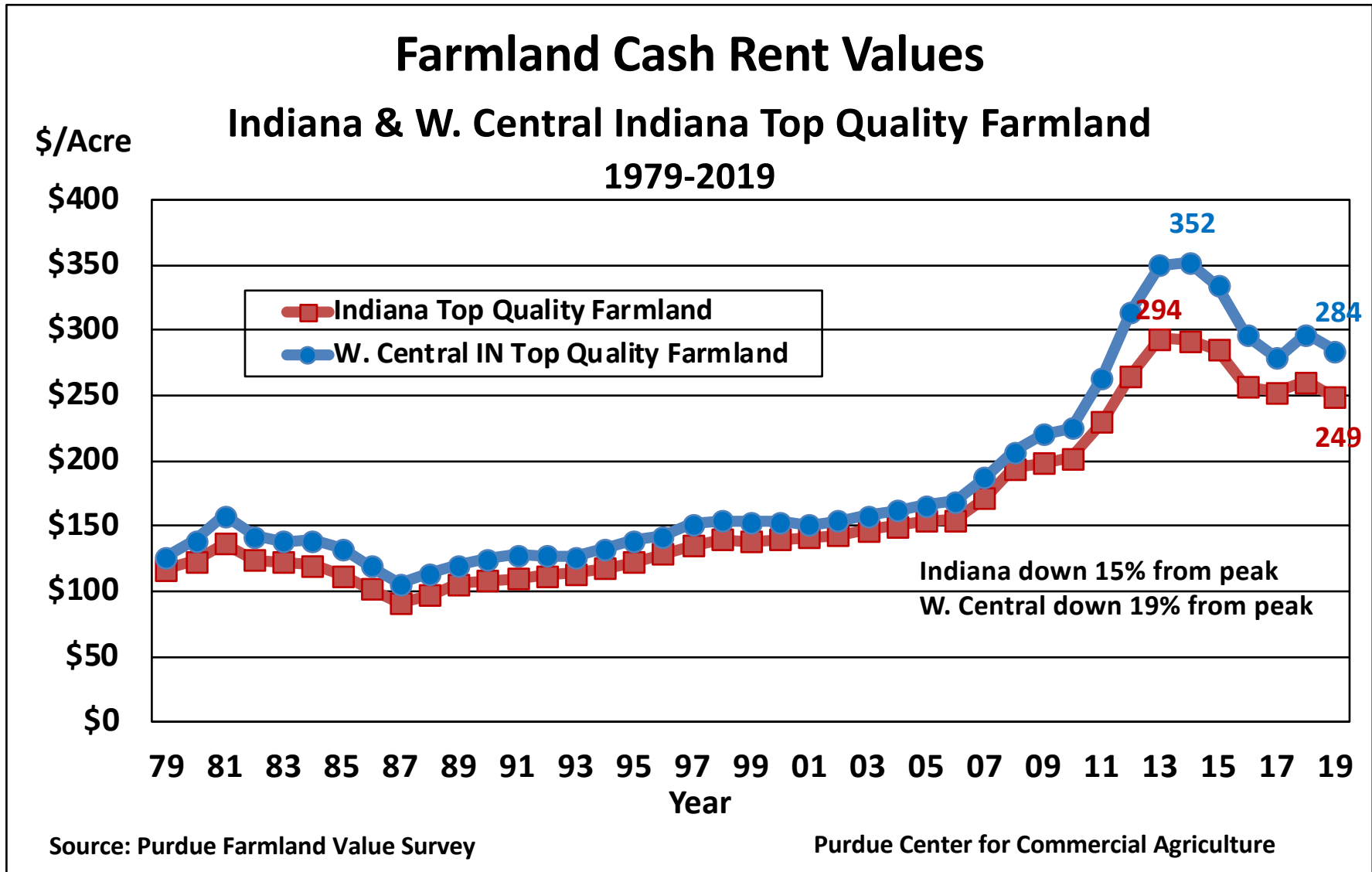
Farmers Interest in Making Capital Investments Improved Again in November



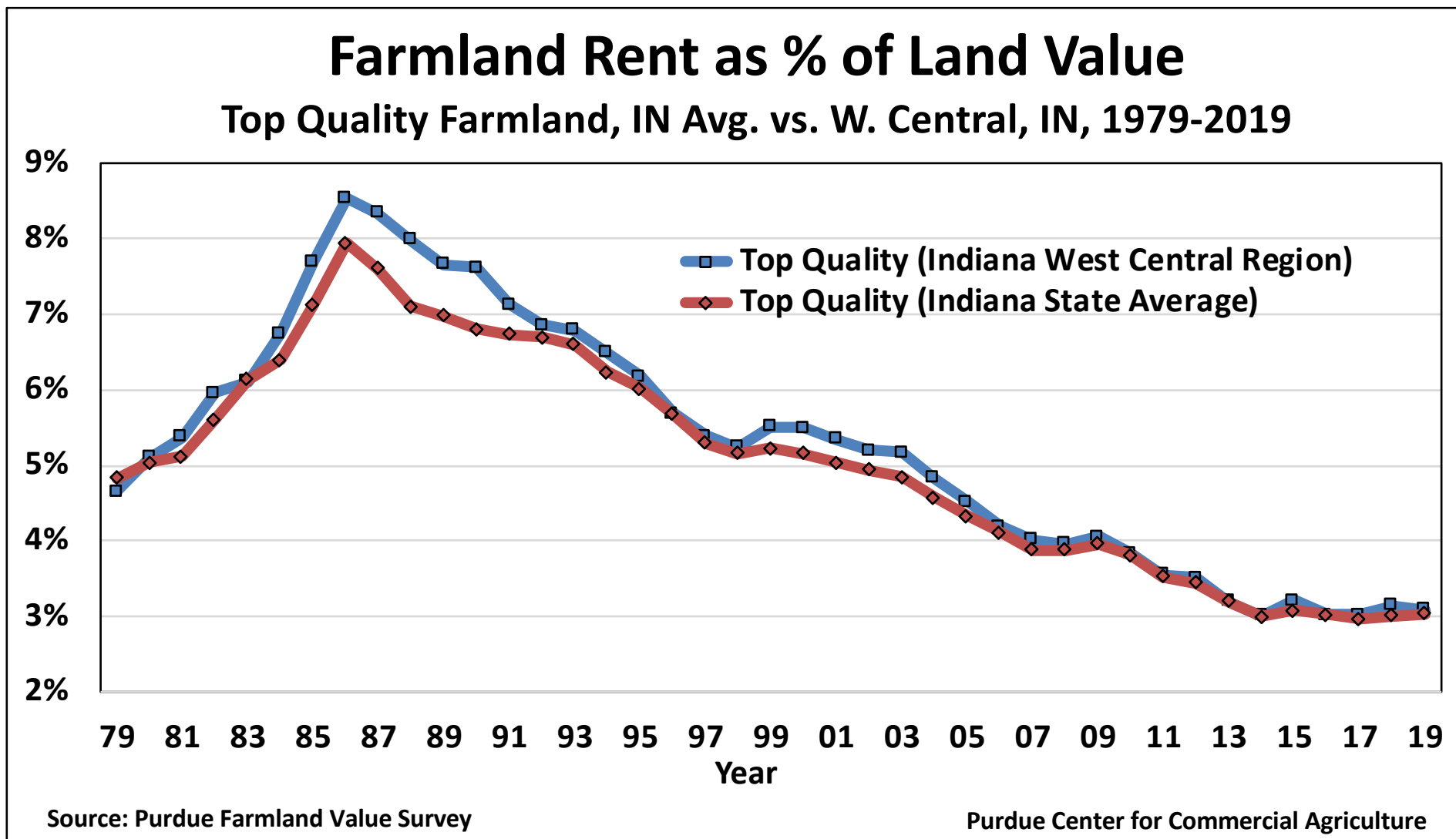
Top Quality Farmland Values Weakened in 2019 vs. 2018



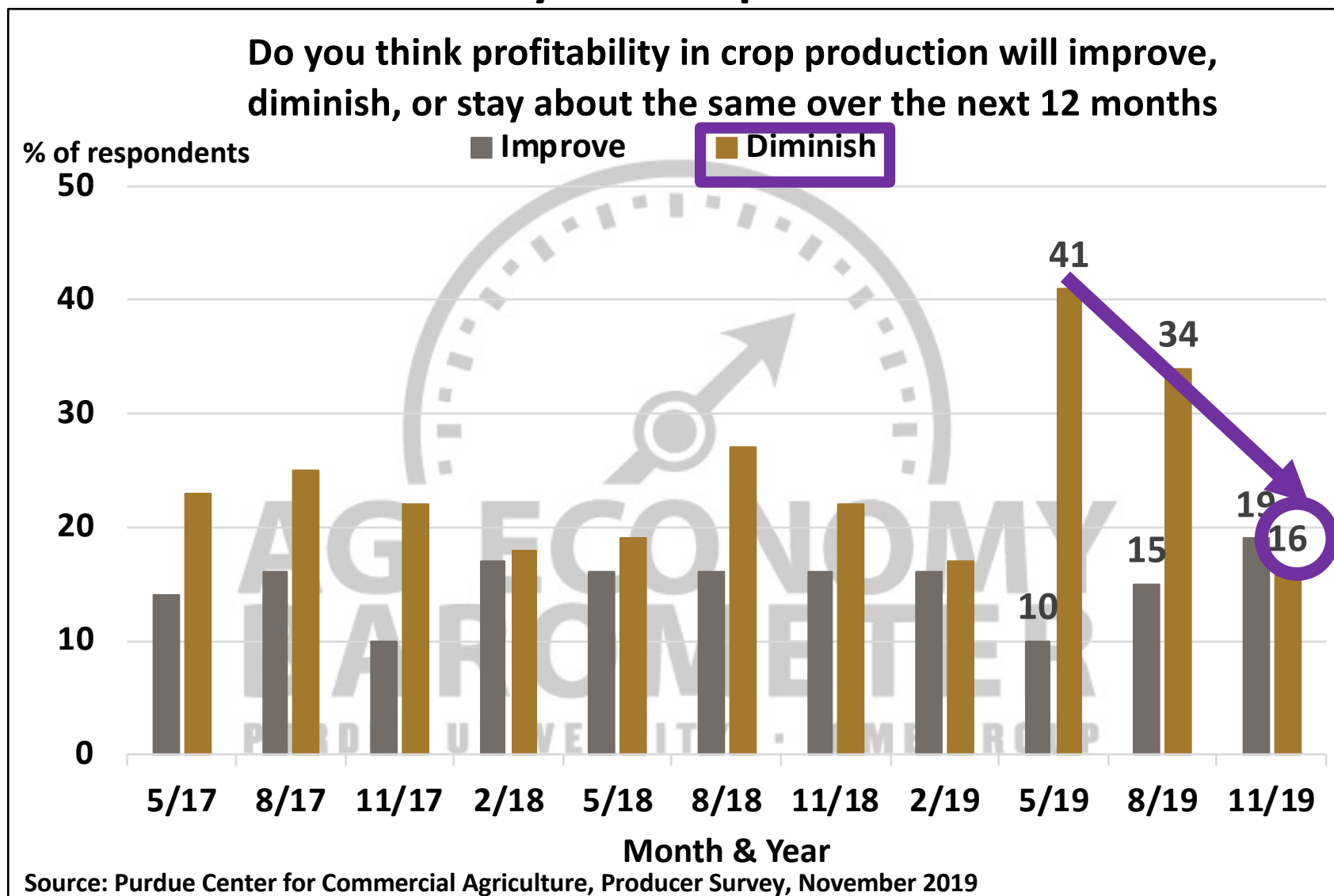
Top Quality Land Cash Rental Rates Declined 4 to 5% in 2019



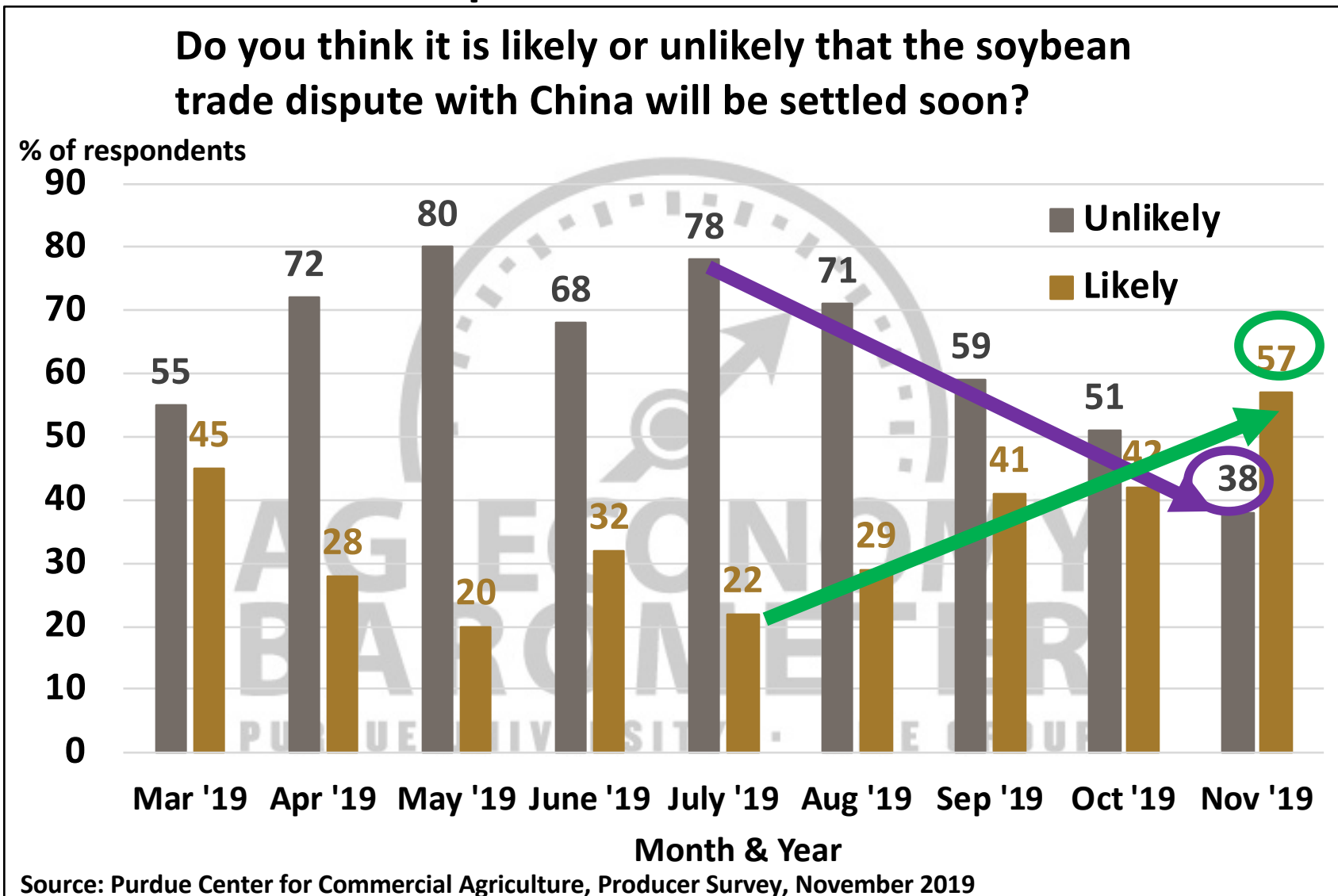
Farmland Cash Rental Rates as % of Value Have Fallen Along With Interest Rates



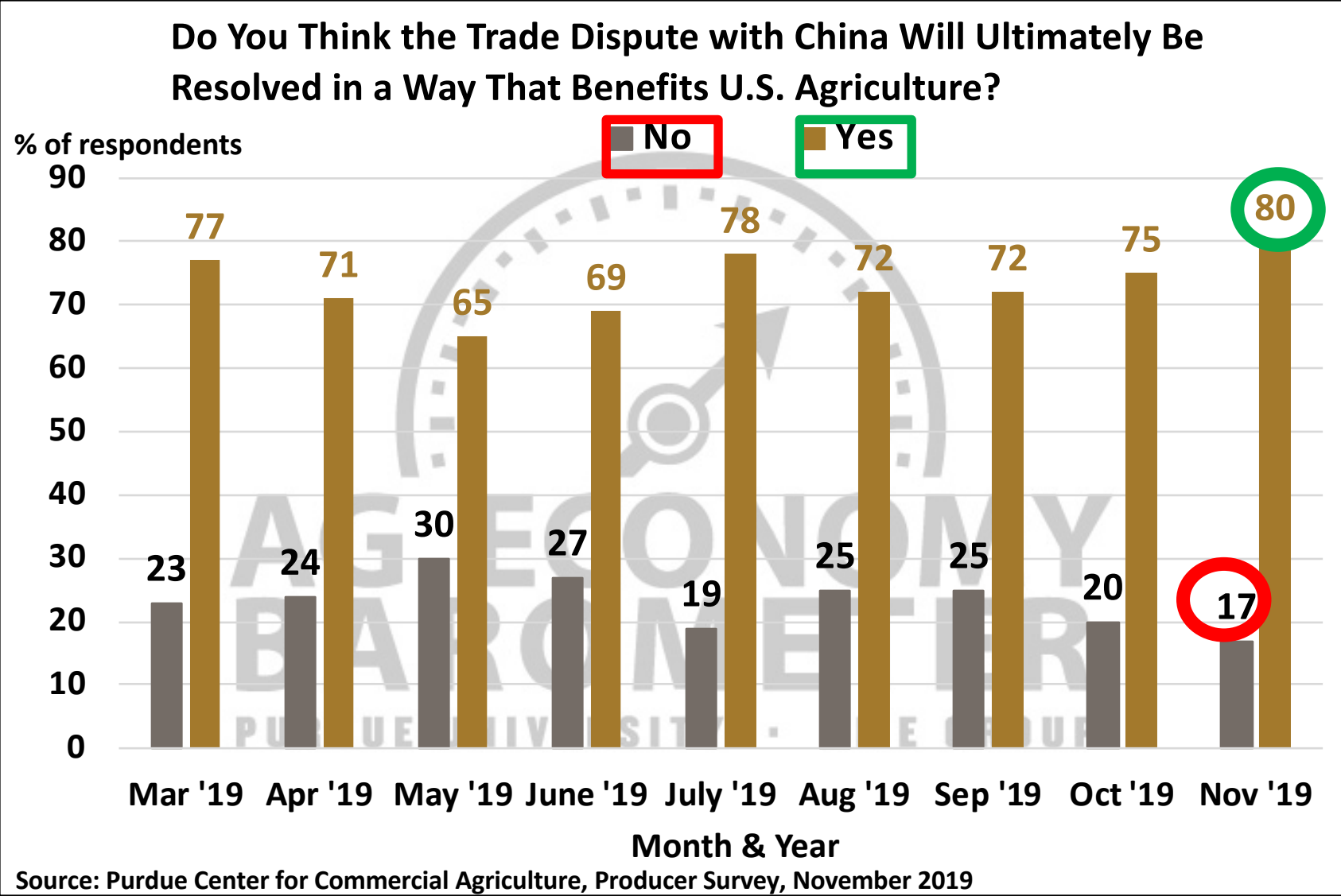
Worries Among Farmers About Crop Profitability Peaked in May But Noticeably More Optimistic This Fall



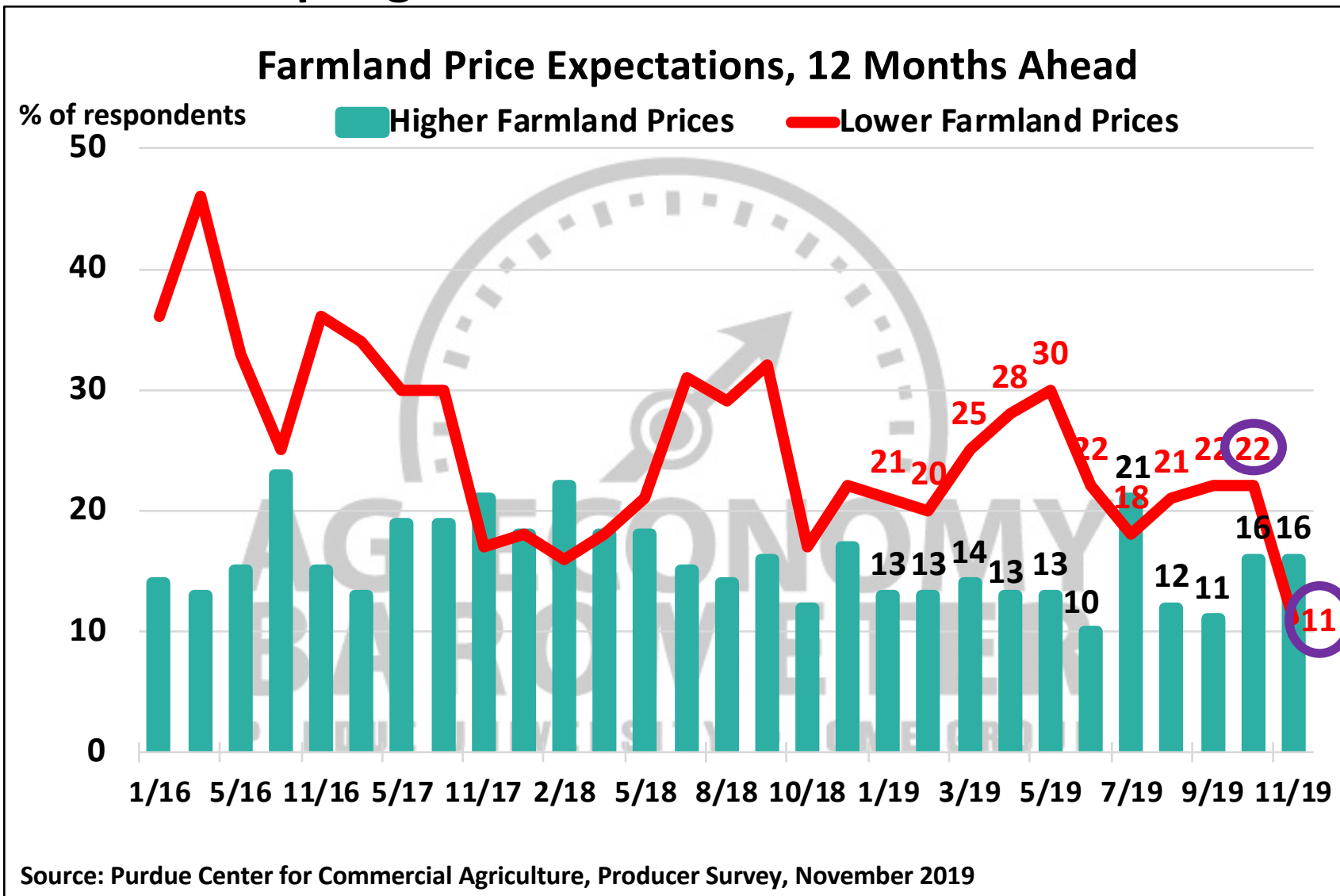
Over the Summer Farmers Became More Optimistic That The Trade Dispute With China Will Be Settled Soon



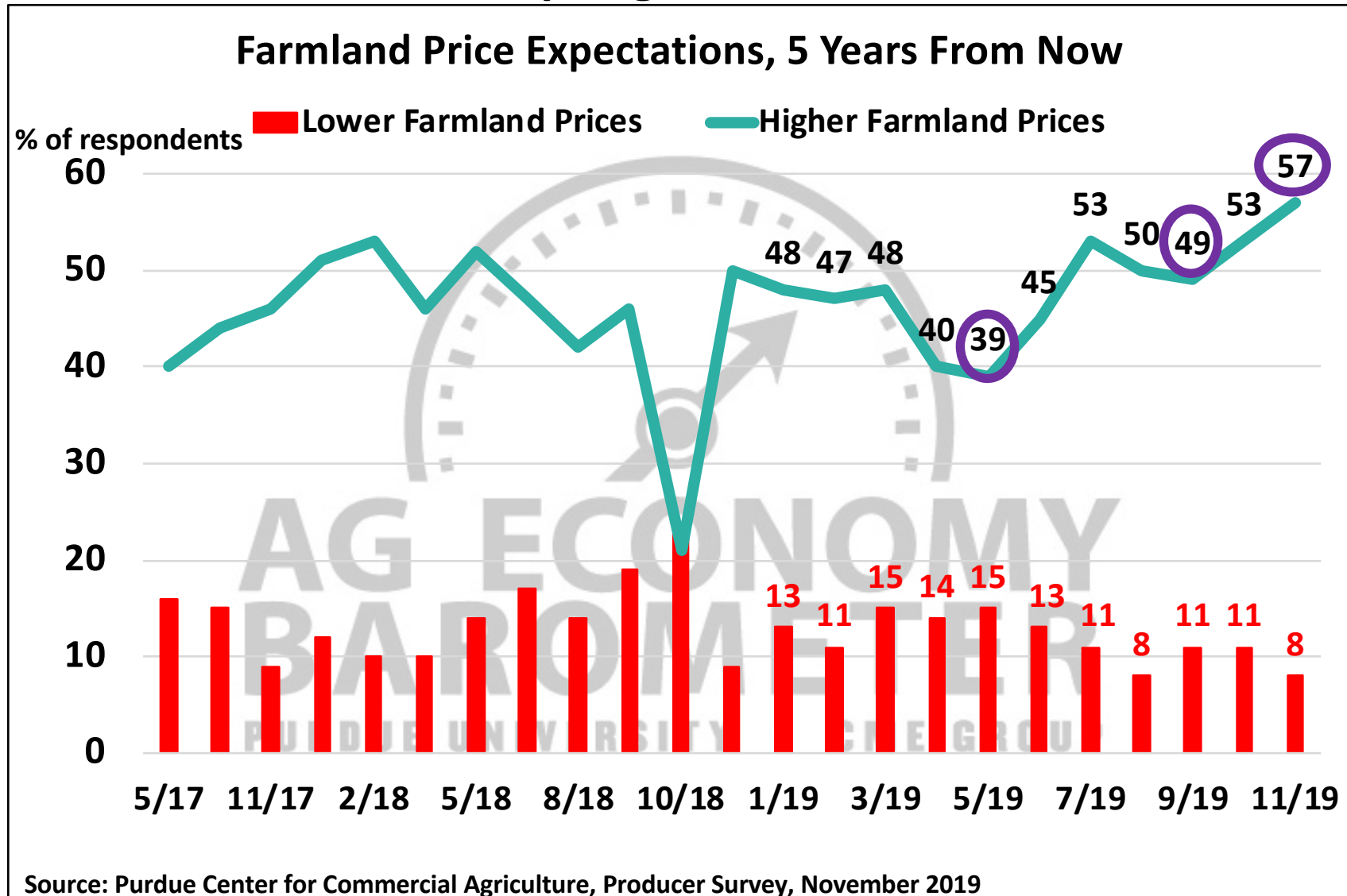
8 out of 10 Farmers Still Expect A Favorable Resolution for Agriculture to Trade Dispute with China



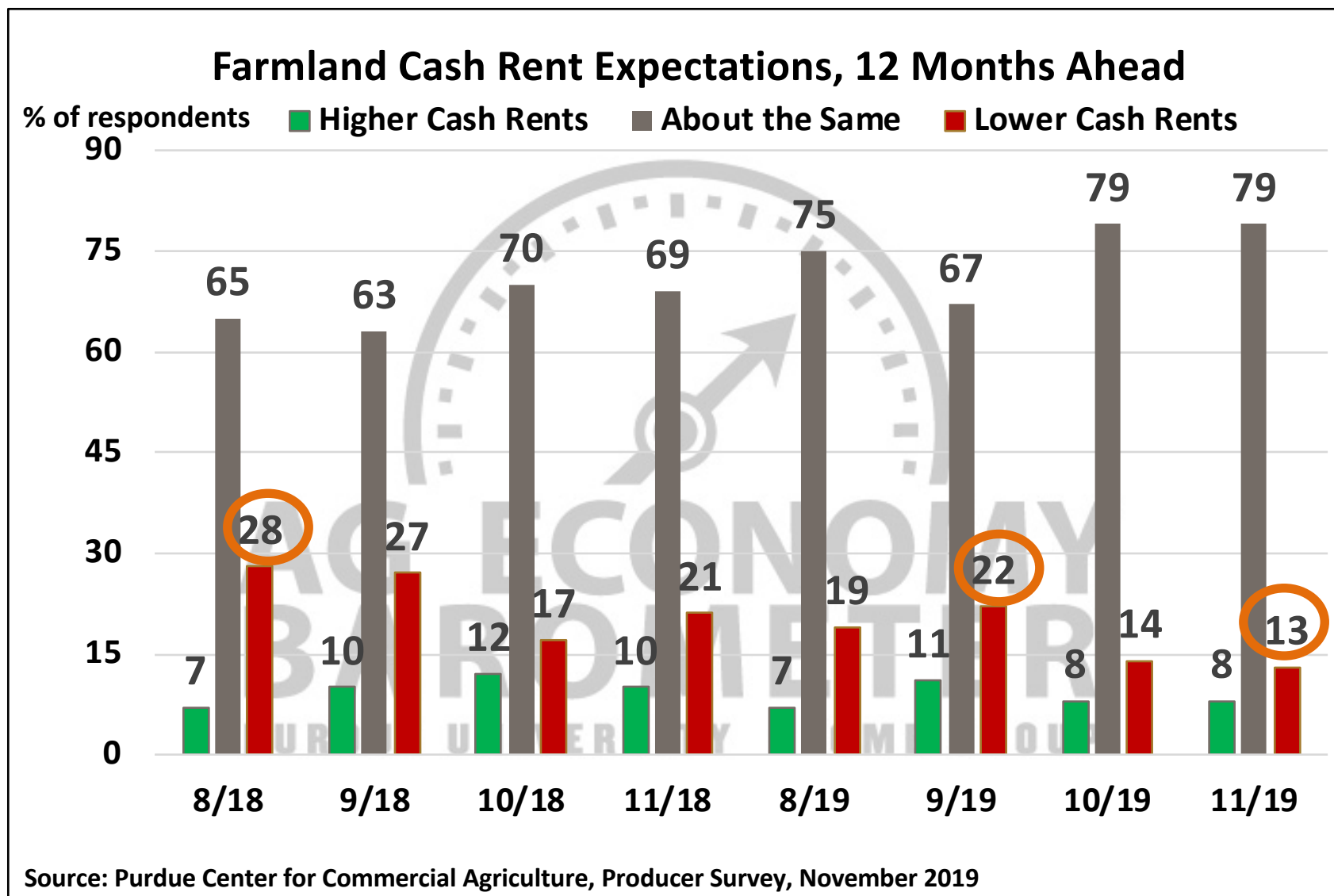
Much Less Pessimism Among Farmers This Fall About Farmland Than Last Spring When Asked to Look 12 Months Ahead



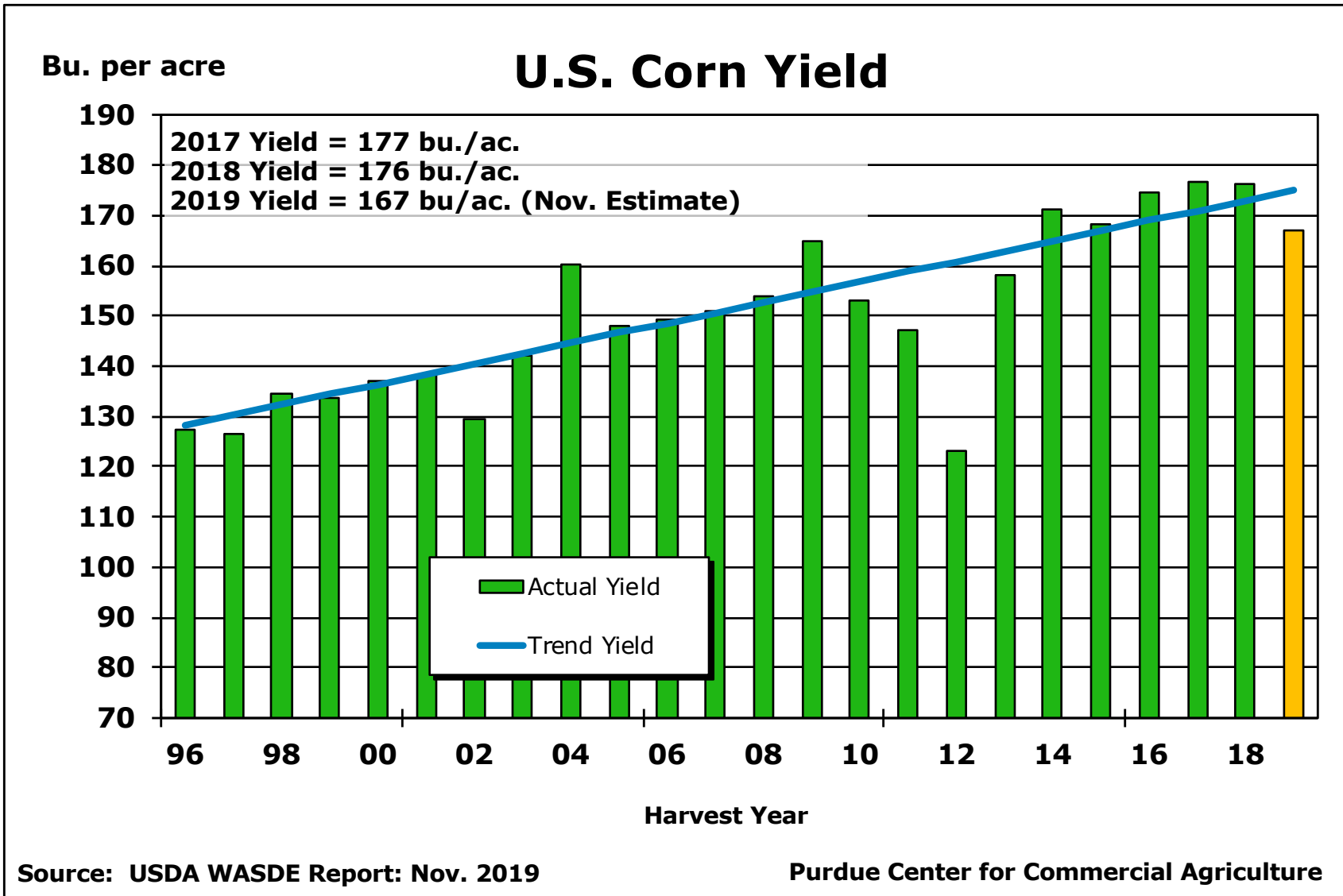
And Much More Optimistic About Longer-Run Outlook for Farmland Than Last Spring and Late Summer



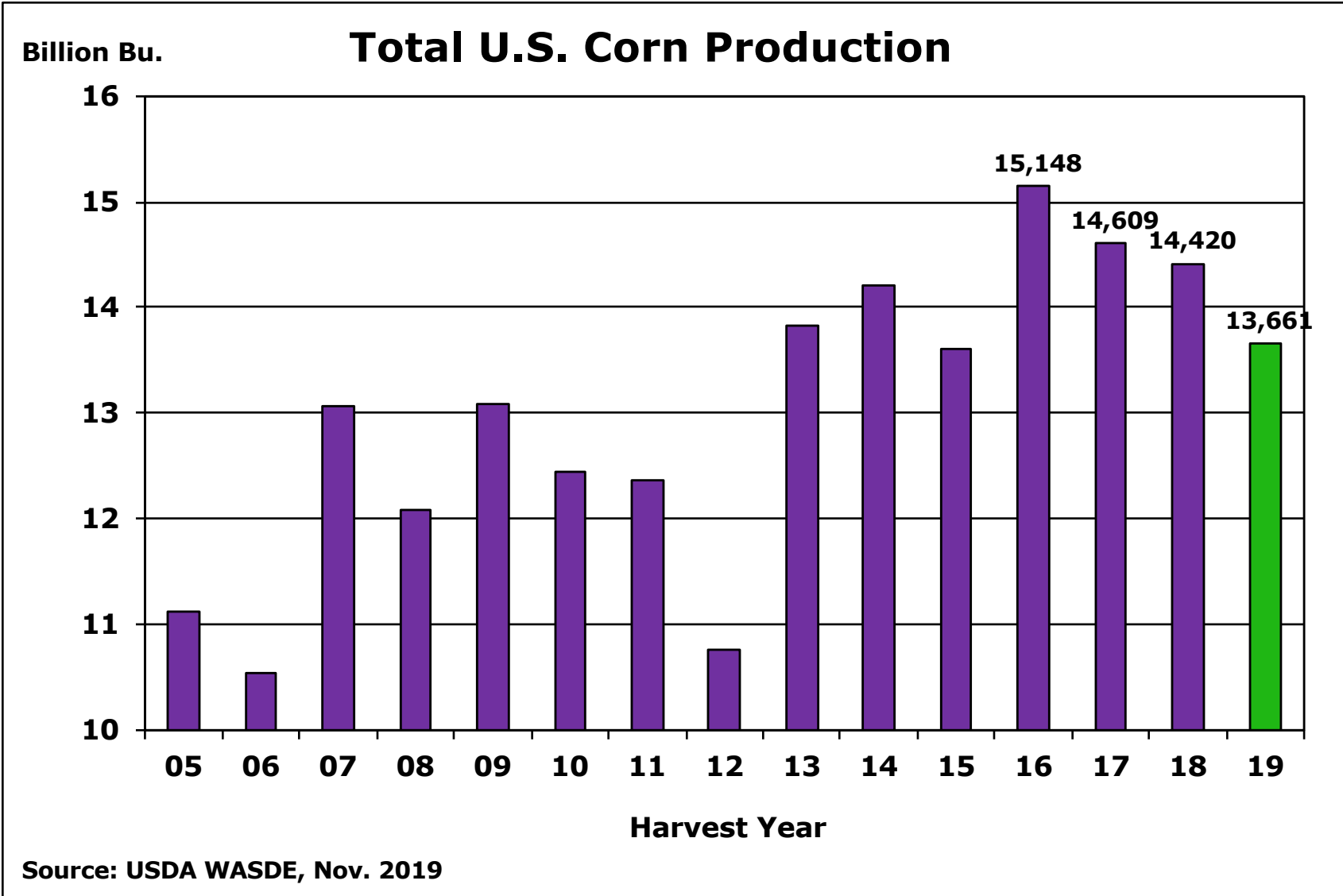
Fewer Farmers Expect Cash Rents to Decline in 2020



Surprisingly Good Yields This Fall

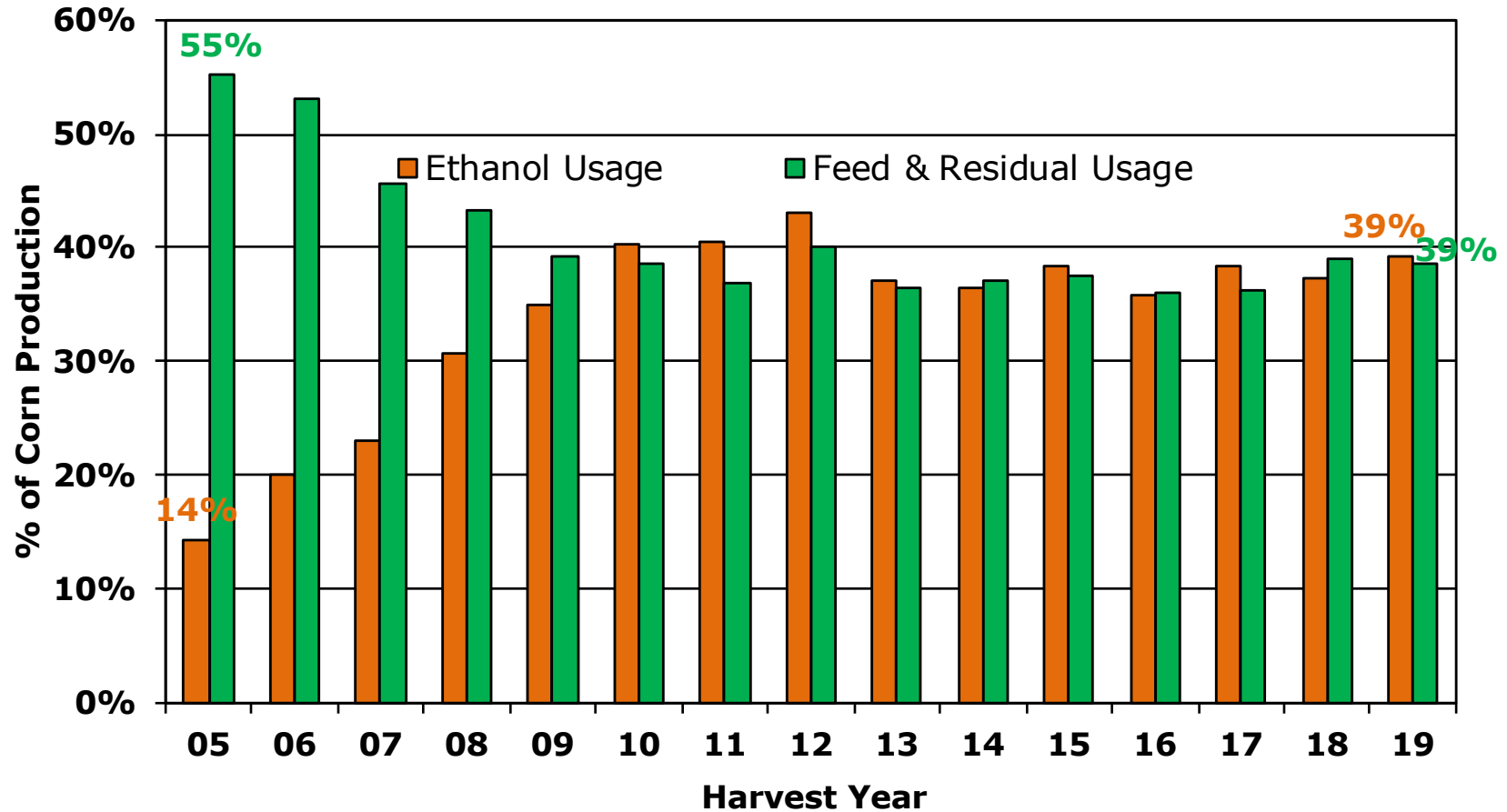


But Still Was 3rd Year in A Row for Corn Production Decline



Ethanol Usage Has Plateaued

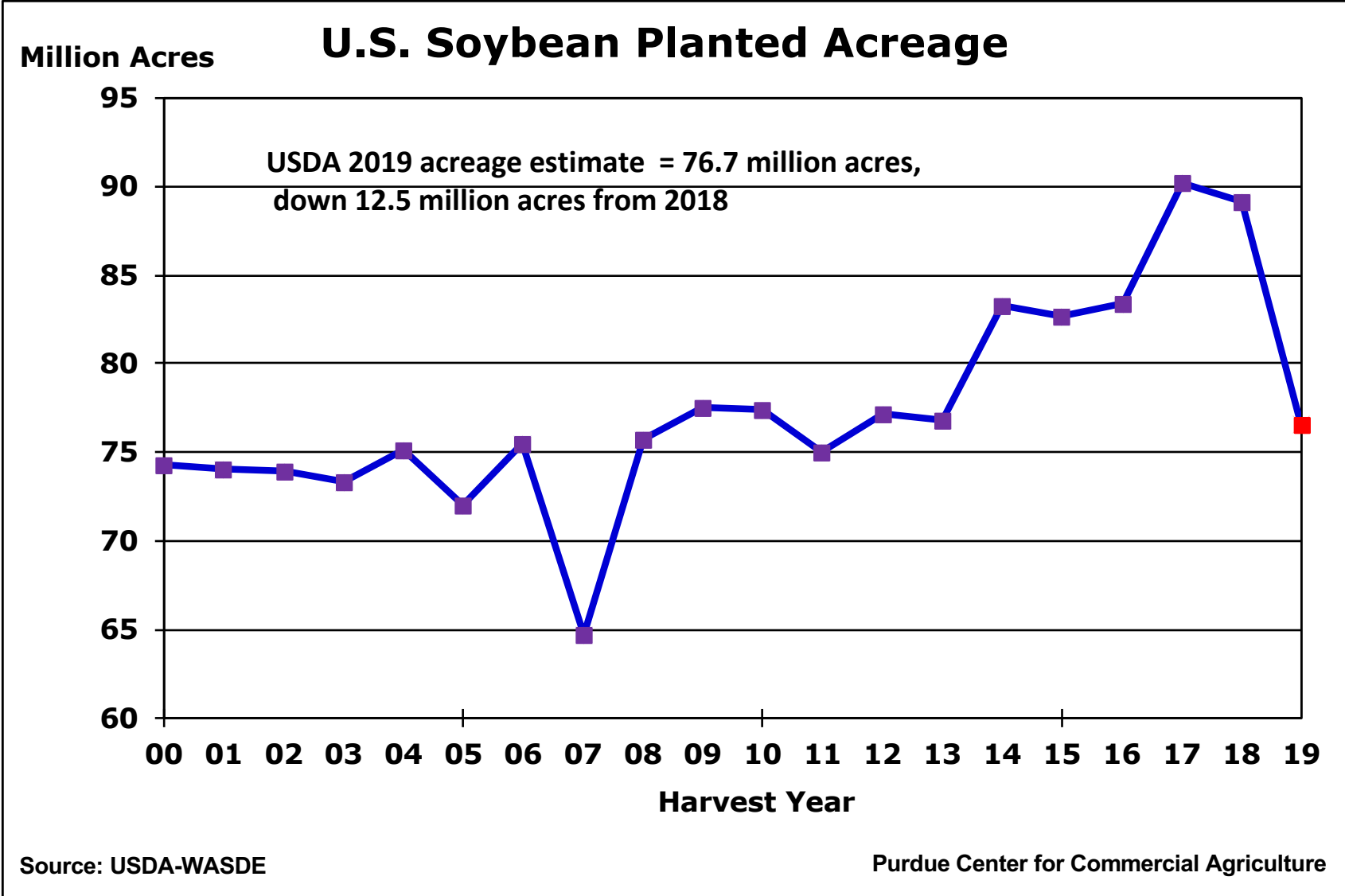
Corn Used for Ethanol Production & Feed Consumption
% of U.S. Corn Production



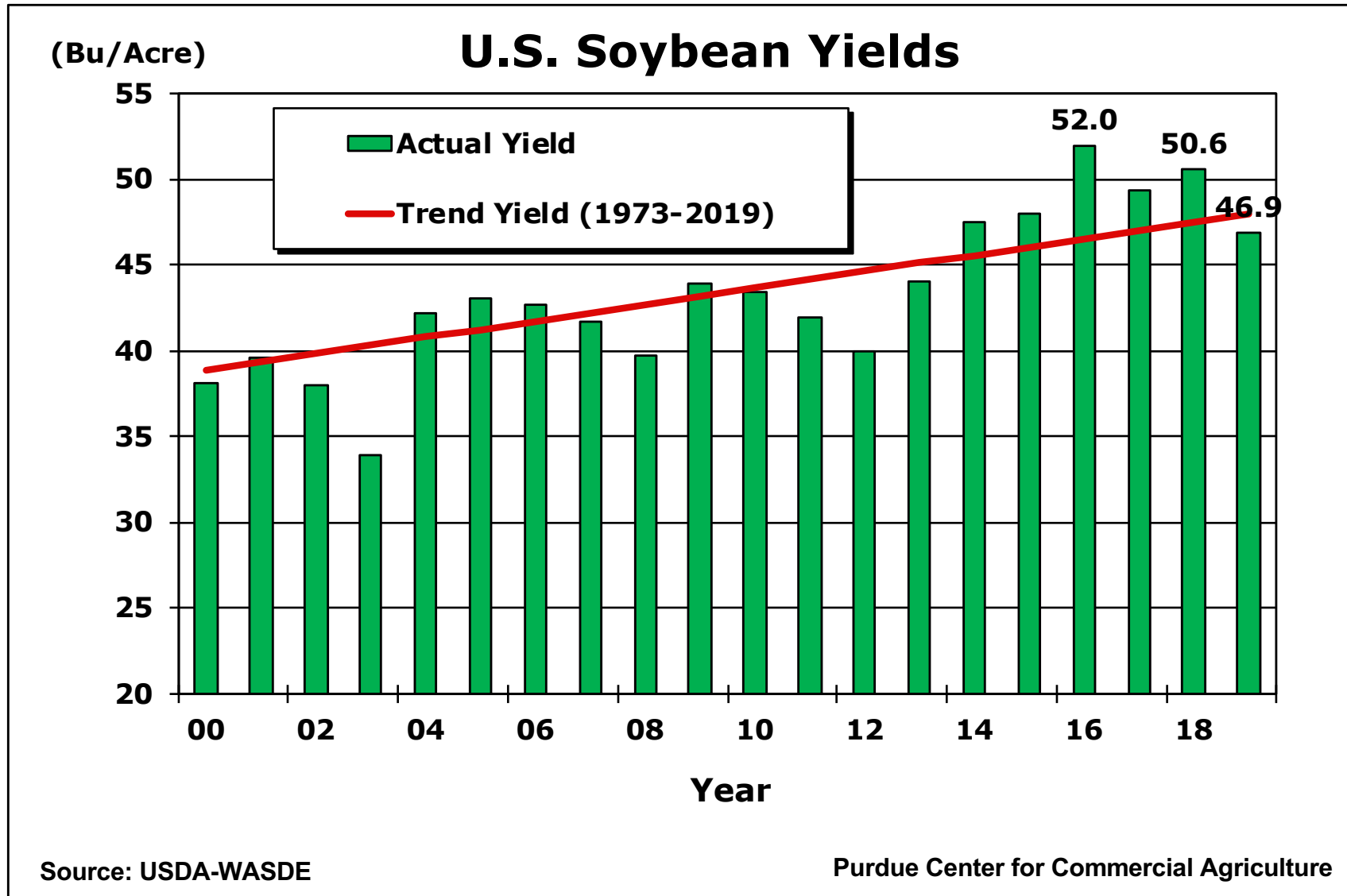
Source: USDA-WASDE

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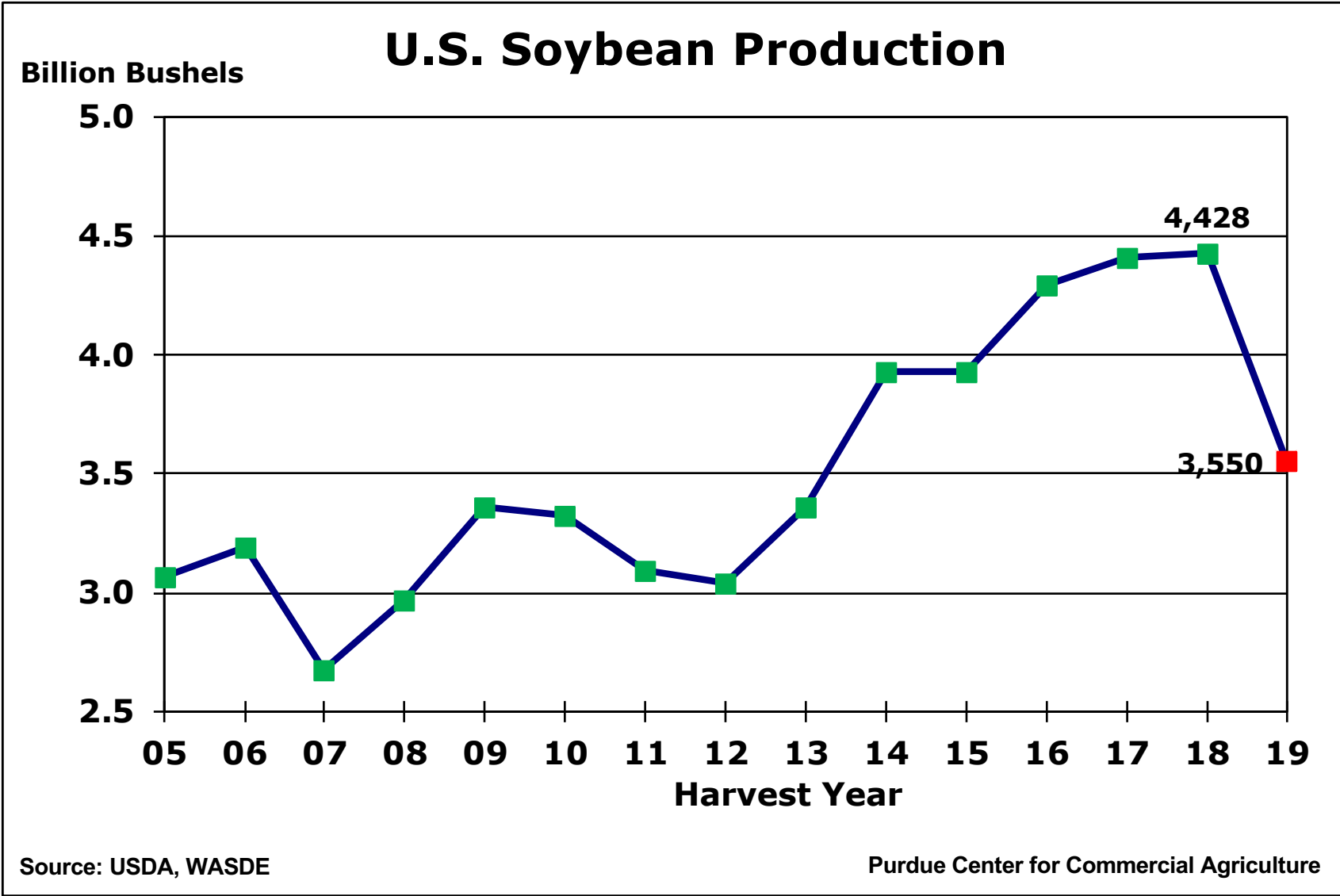
Soybean Acreage Plummeted As Prevented Plantings Soared



Lower Yields...But Not As Much As Expected

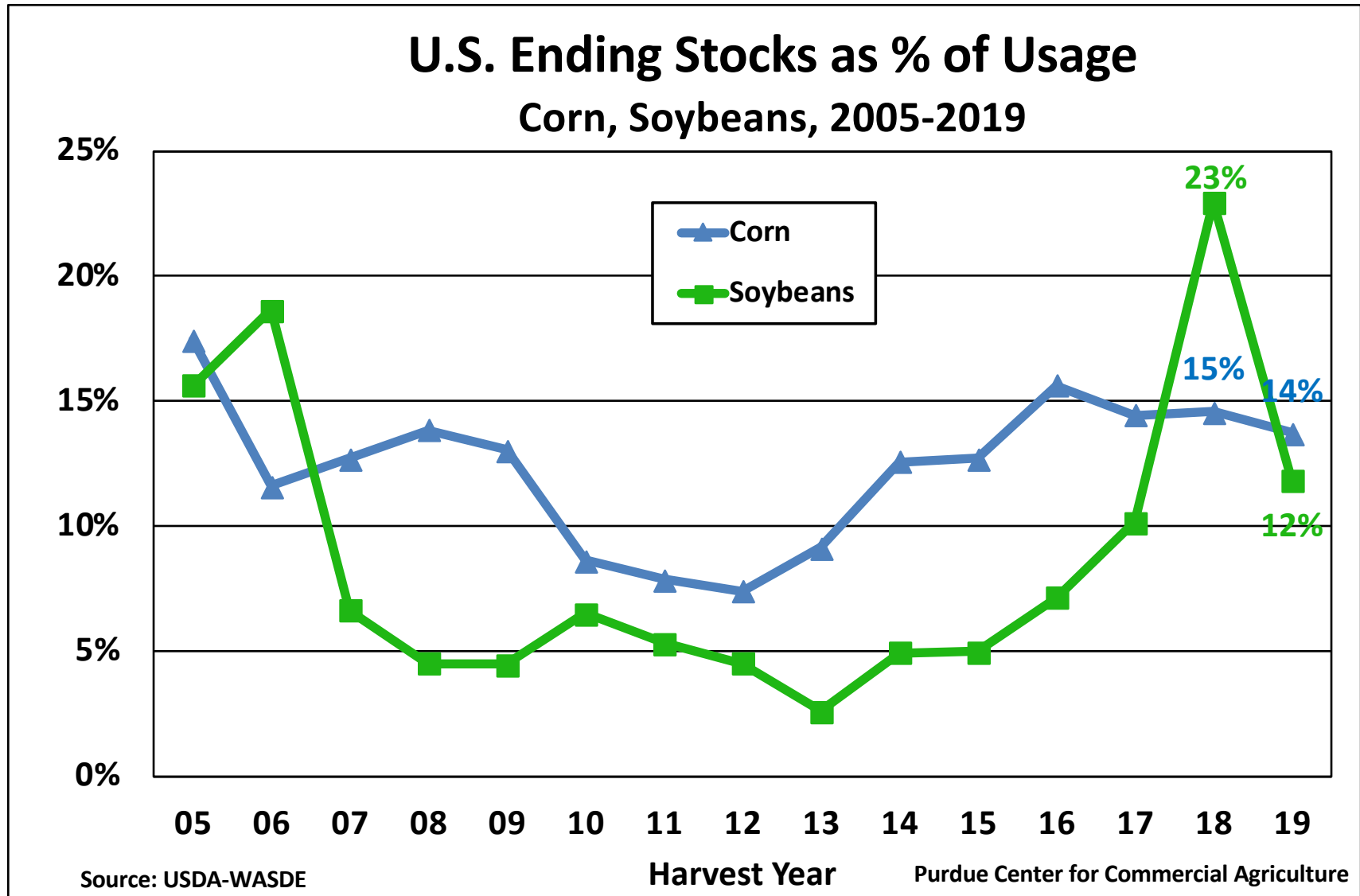


Soybean Production Down 20%



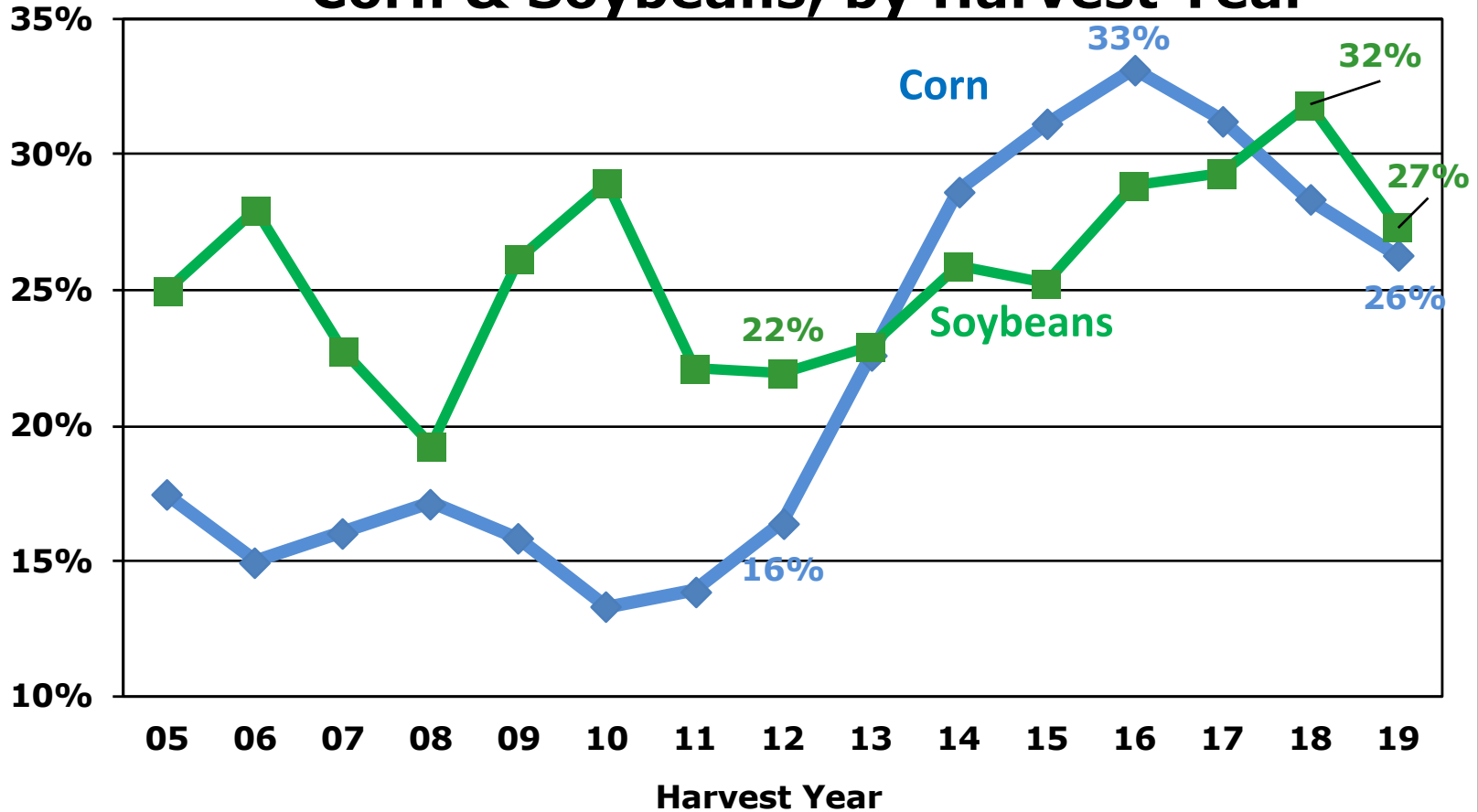
U.S. Ending Stocks Tightening

Could Tighten More If Actual Production Falls Below USDA's Projections



World Stocks Are Tightening, But Remain Large

World Stocks-to-Use Ratios Corn & Soybeans, by Harvest Year

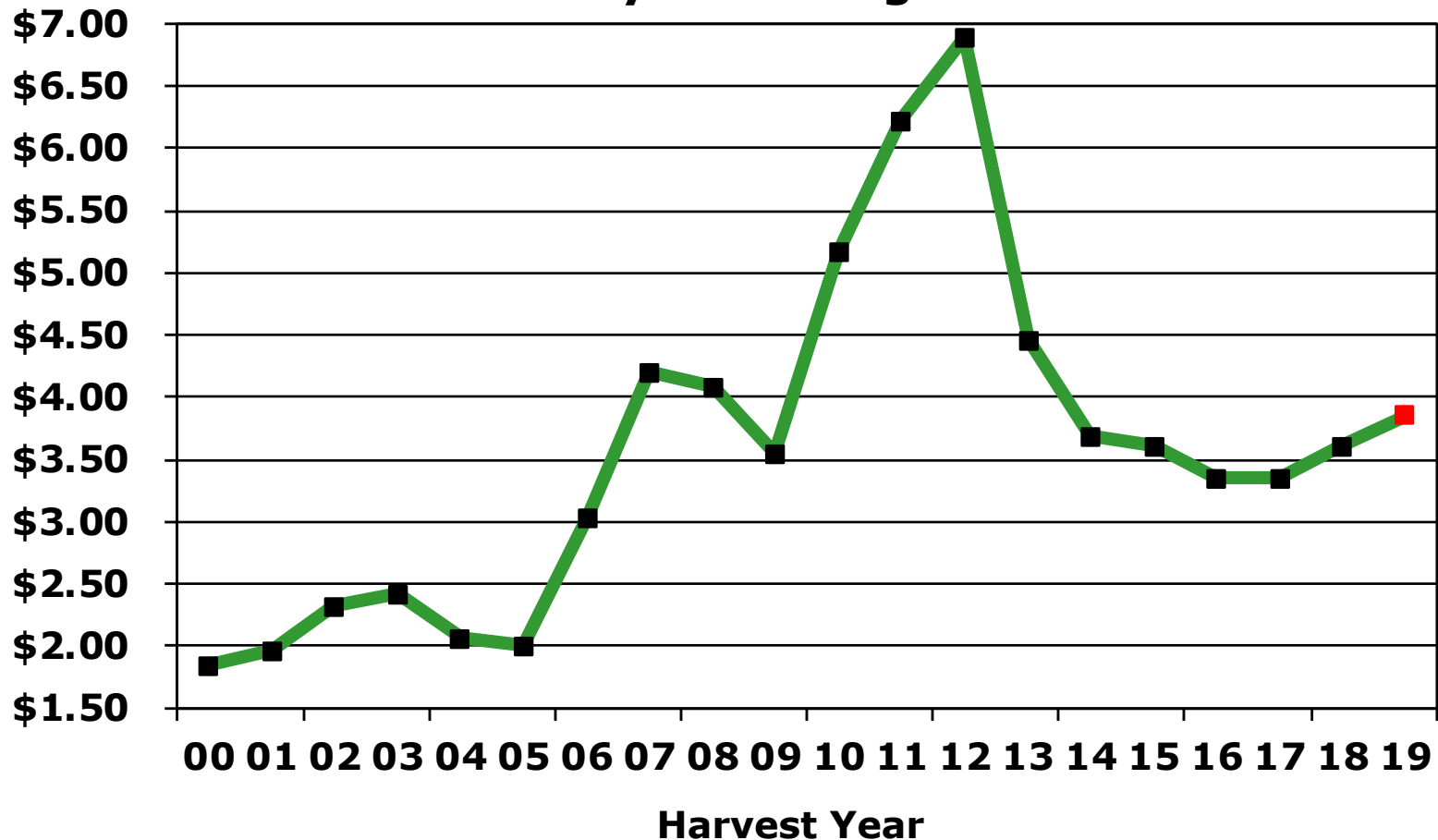


Source: USDA-FAS, 2019 Forecast

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U.S. National Average Cash Corn Prices By Marketing Year

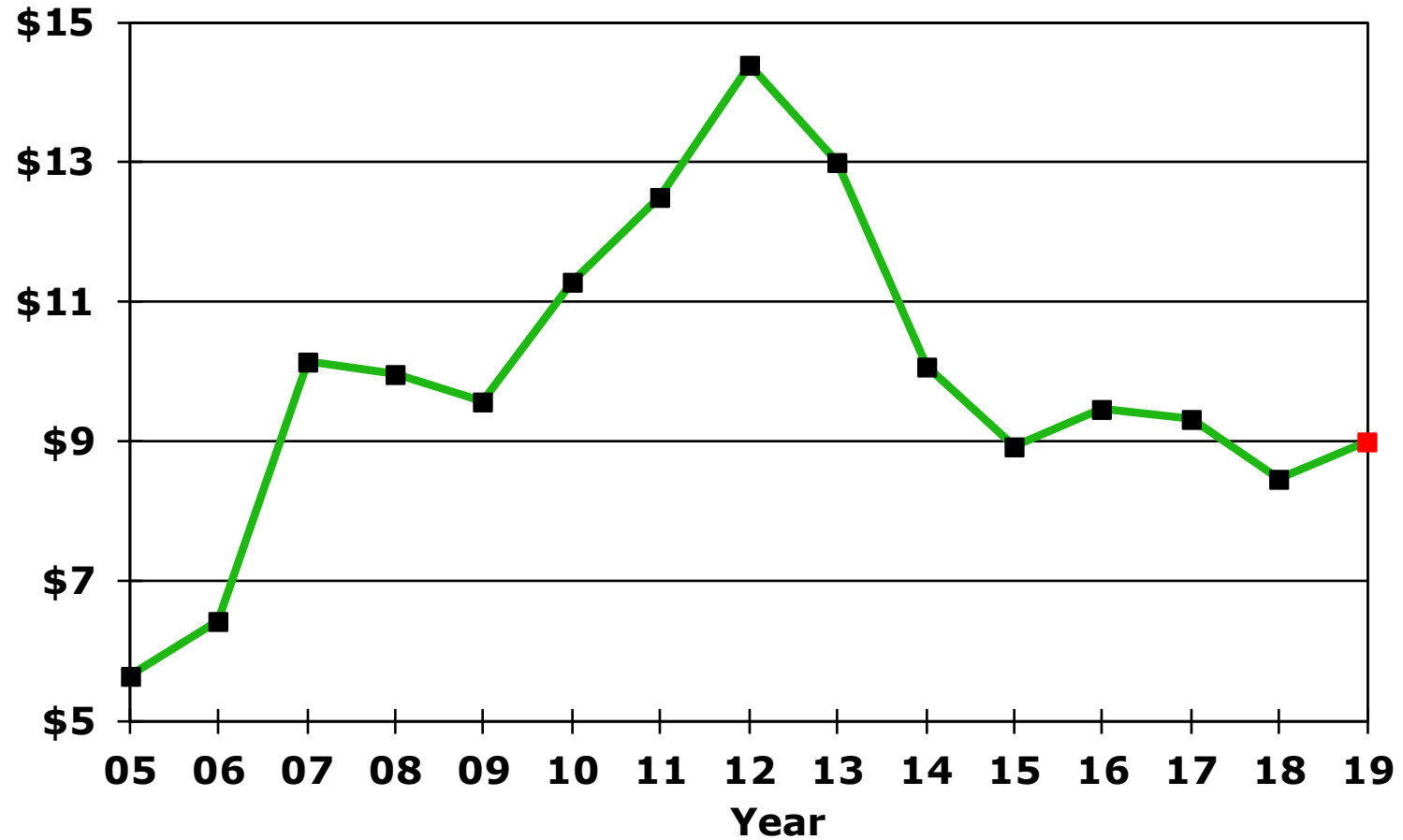
\$ per bushel



Source: USDA WASDE Report
USDA Forecast for 2019

U.S. National Average Soybean Price

\$/Bu.



Source: USDA ,WASDE

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Fall Corn Basis Very Positive...Implies Weak Corn Storage Returns



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Home User's Guide

State

Indiana

Region

Knox (SW)

Crop

Corn

Futures Contract

July

Crop Year(s)

Select Historical Year(s) to Average Across

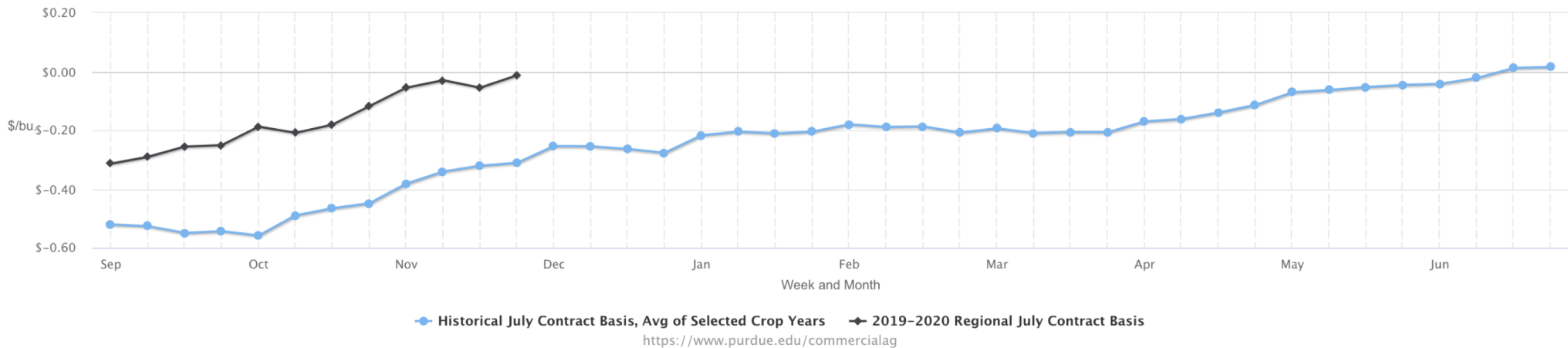
2018-2019 × 2017-2018 ×
2016-2017 ×

Fall Basis \$0.30/bu. above average

Submit

Purdue Center for Commercial Agriculture Crop Basis Tool

Corn: IN SW Region, July Contract Basis, Weekly
Avg. of Selected Historical Crop Years [2016-2017,2017-2018,2018-2019]
vs. Current Crop Year



Center for Commercial Agriculture

December, 2019

Looking Ahead to the 2020 Corn Crop

Dec. 2020 Corn Futures Settled @ \$3.90/bu.

Late Sept. Southwest IN Basis Forecast = \$-0.22/bu.

\$3.90 + (\$-0.22) = \$3.68/bu. Expected Sale Price, if hedged

History suggests opportunity to roll this hedge forward at harvest time to take advantage of increase in futures market carry

May 2021 Corn Futures Settled @ \$4.01/bu.

Late April Southwest IN Basis Forecast = \$-0.01/bu.

\$4.01 + (\$-0.01) = \$4.00 Expected Sale Price, if hedged

Strong Nearby Soybean Basis Implies Weak Storage Returns



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State

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Crop

Soybeans

Futures Contract

January

Crop Year(s)

Select Historical Year(s) to Average Across

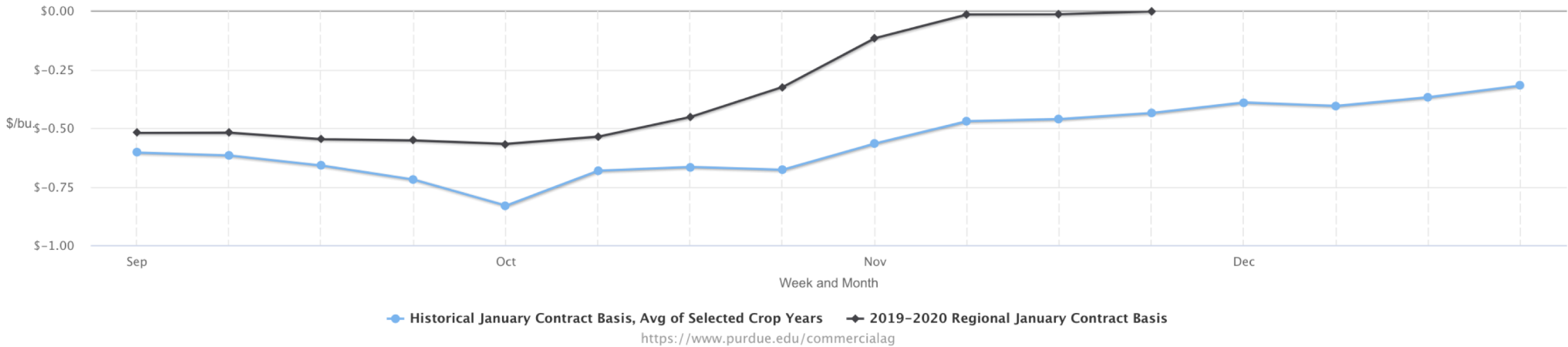
2018-2019 2017-2018

Recent nearby Basis \$0.40/bu. above average

Submit

Purdue Center for Commercial Agriculture Crop Basis Tool

Soybeans: IN SW Region, January Contract Basis, Weekly
Avg. of Selected Historical Crop Years [2017-2018,2018-2019]
vs. Current Crop Year



Center for Commercial Agriculture

December, 2019

Looking Ahead to the 2020 Soybean Crop

Nov. 2020 Soybean Futures Settled @ \$9.32/bu.

Late Sept. Southwest IN Basis Forecast = \$-0.40/bu.

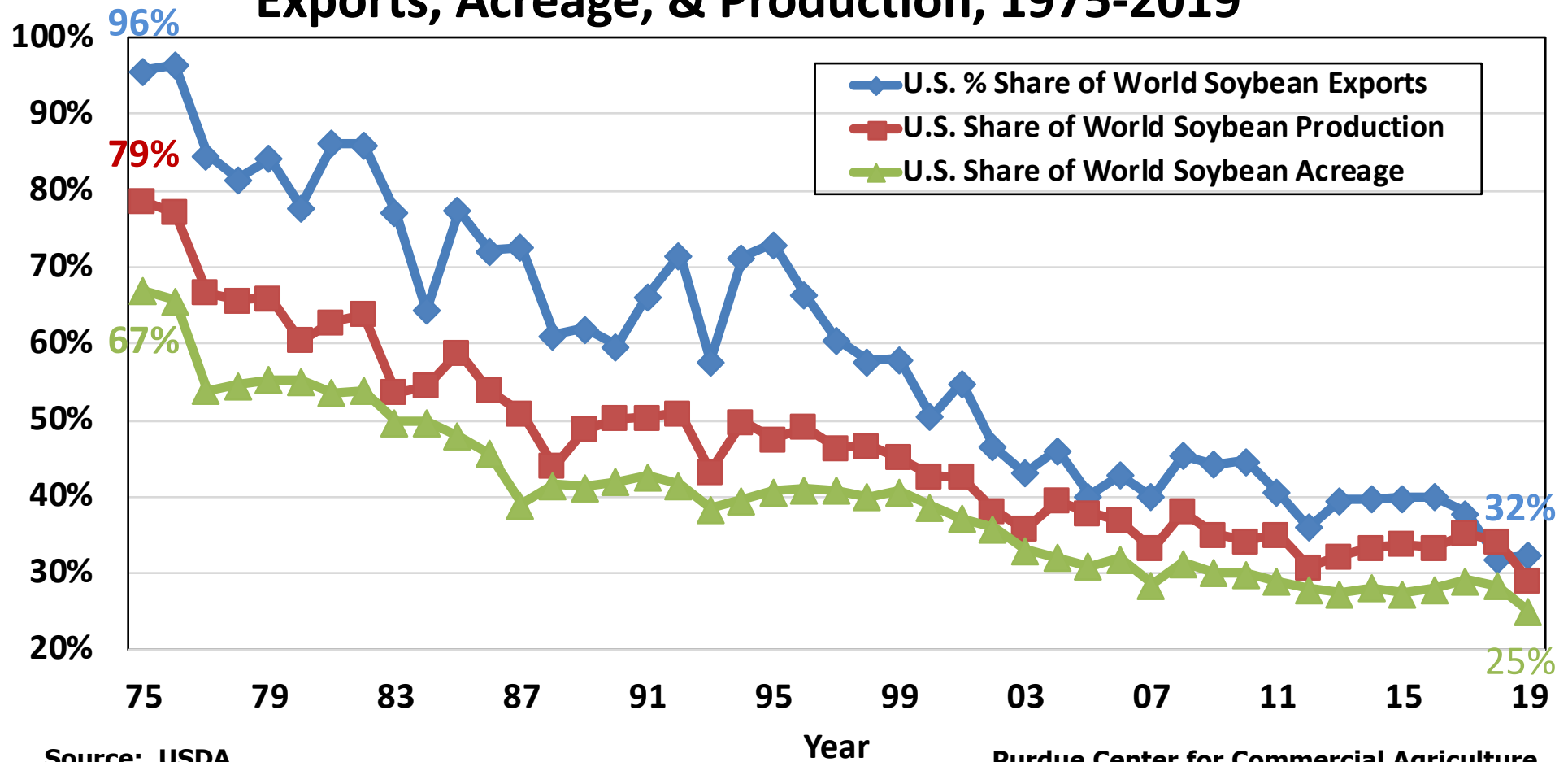
\$9.32 + (\$-0.40) = \$8.92/bu. Expected Sale Price, if hedged

History suggests opportunity to roll this hedge forward at harvest time to take advantage of increase in futures market carry

Ongoing Erosion of U.S. Market Share

U.S. Share of World Soybean

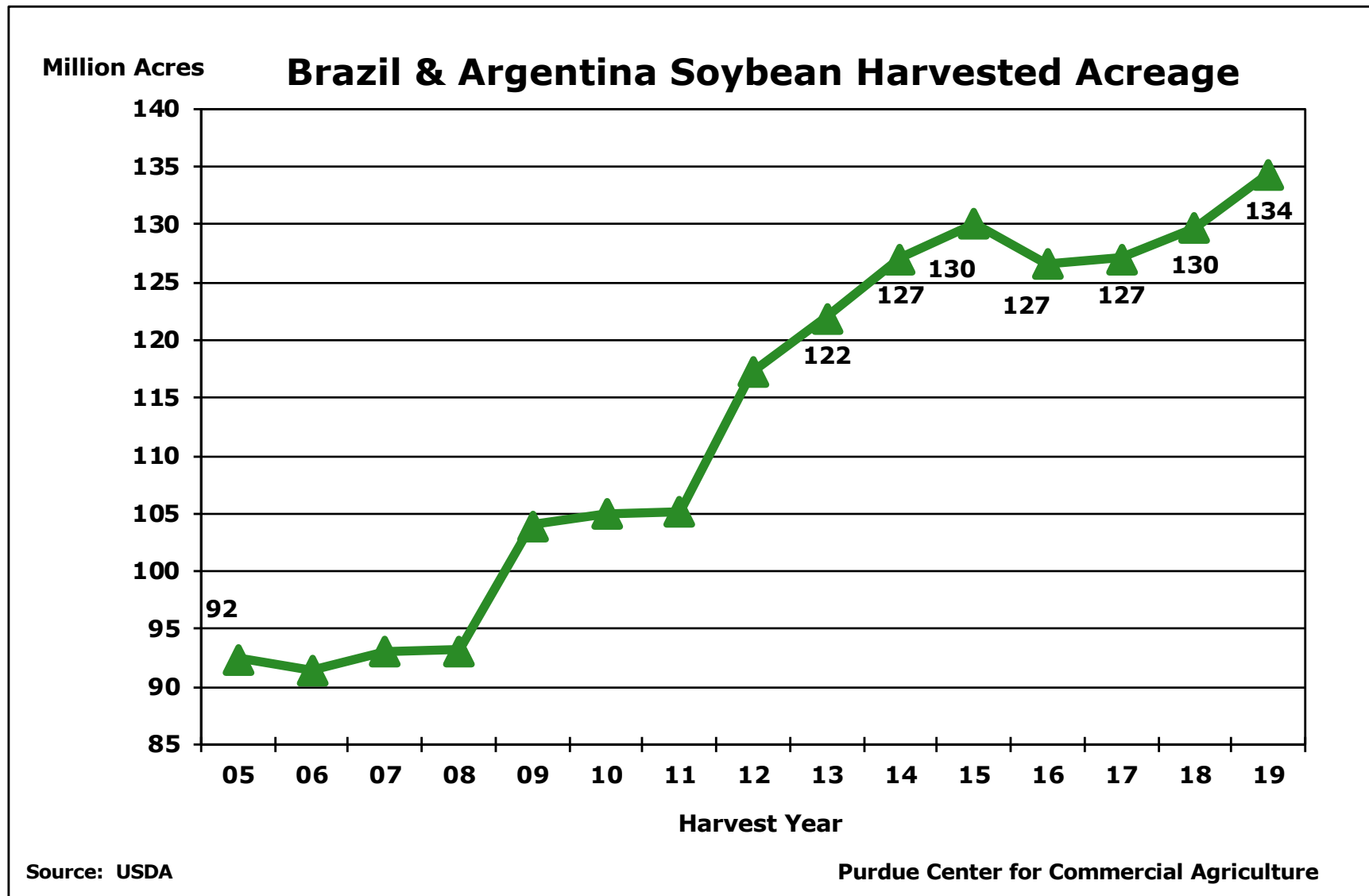
Exports, Acreage, & Production, 1975-2019



Source: USDA

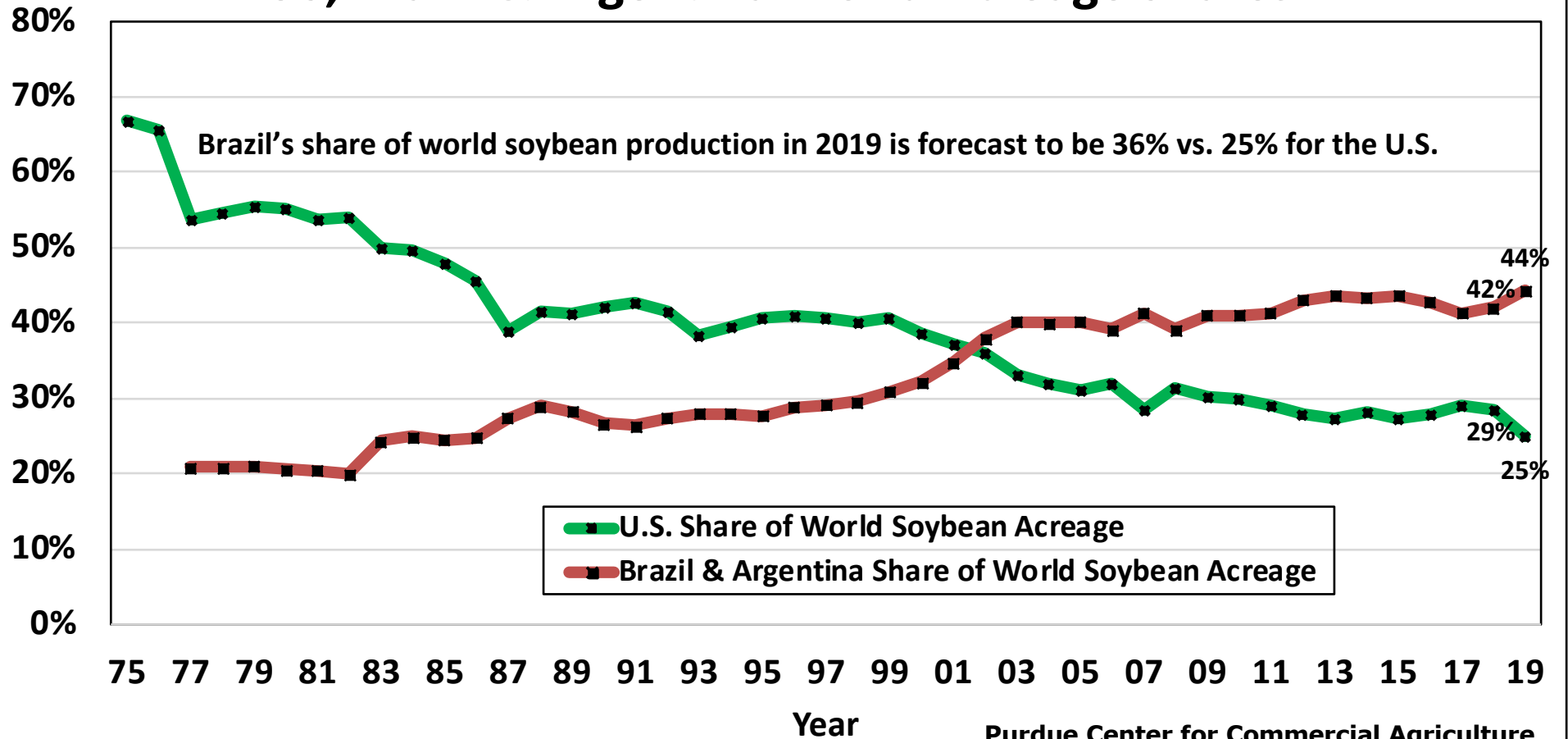
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Acreage Expansion Continues in South America



And South America Continues to Gain Market Share

Soybean Acreage Market Shares US, Brazil & Argentina World Acreage Shares



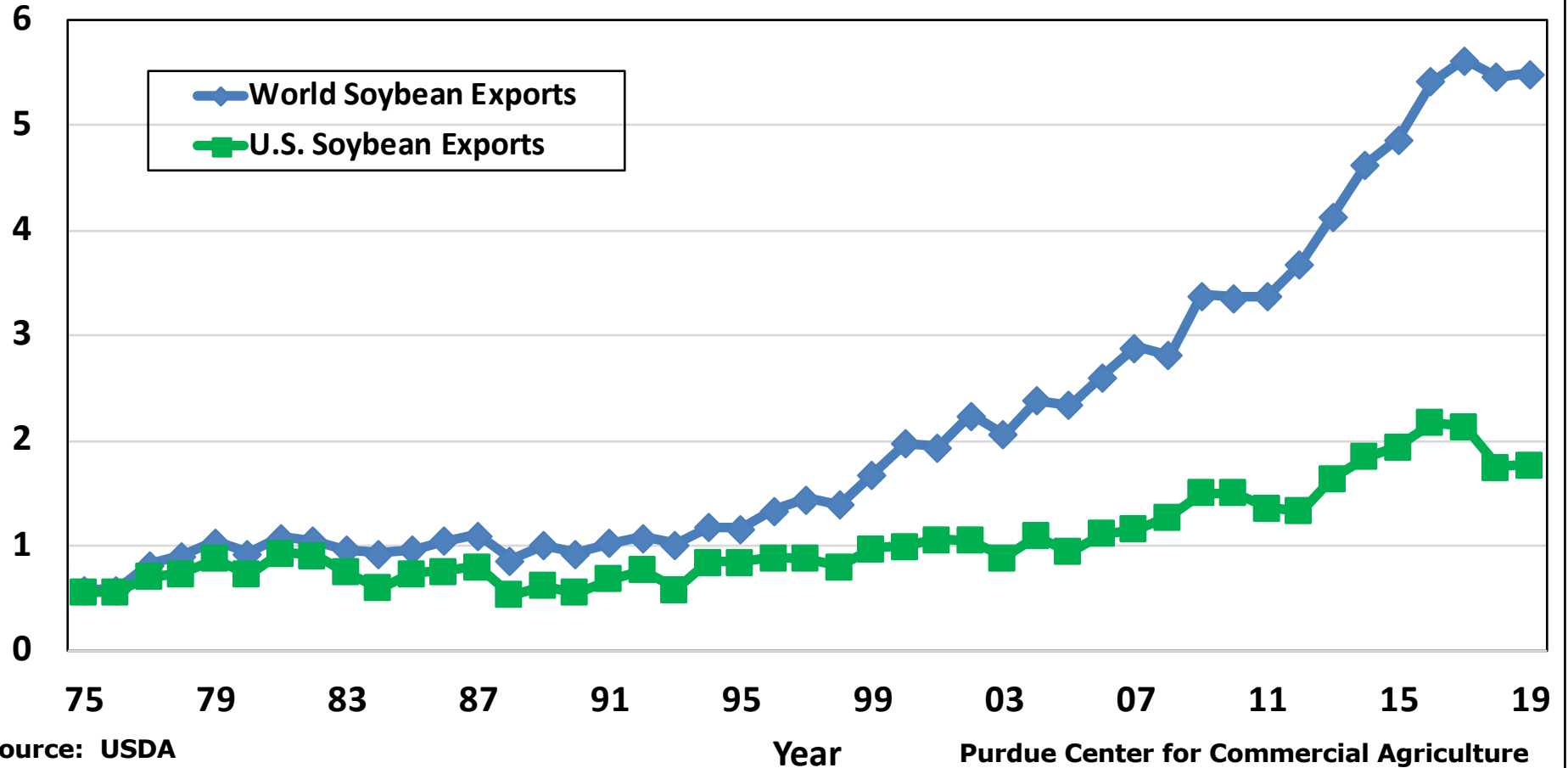
Source: USDA

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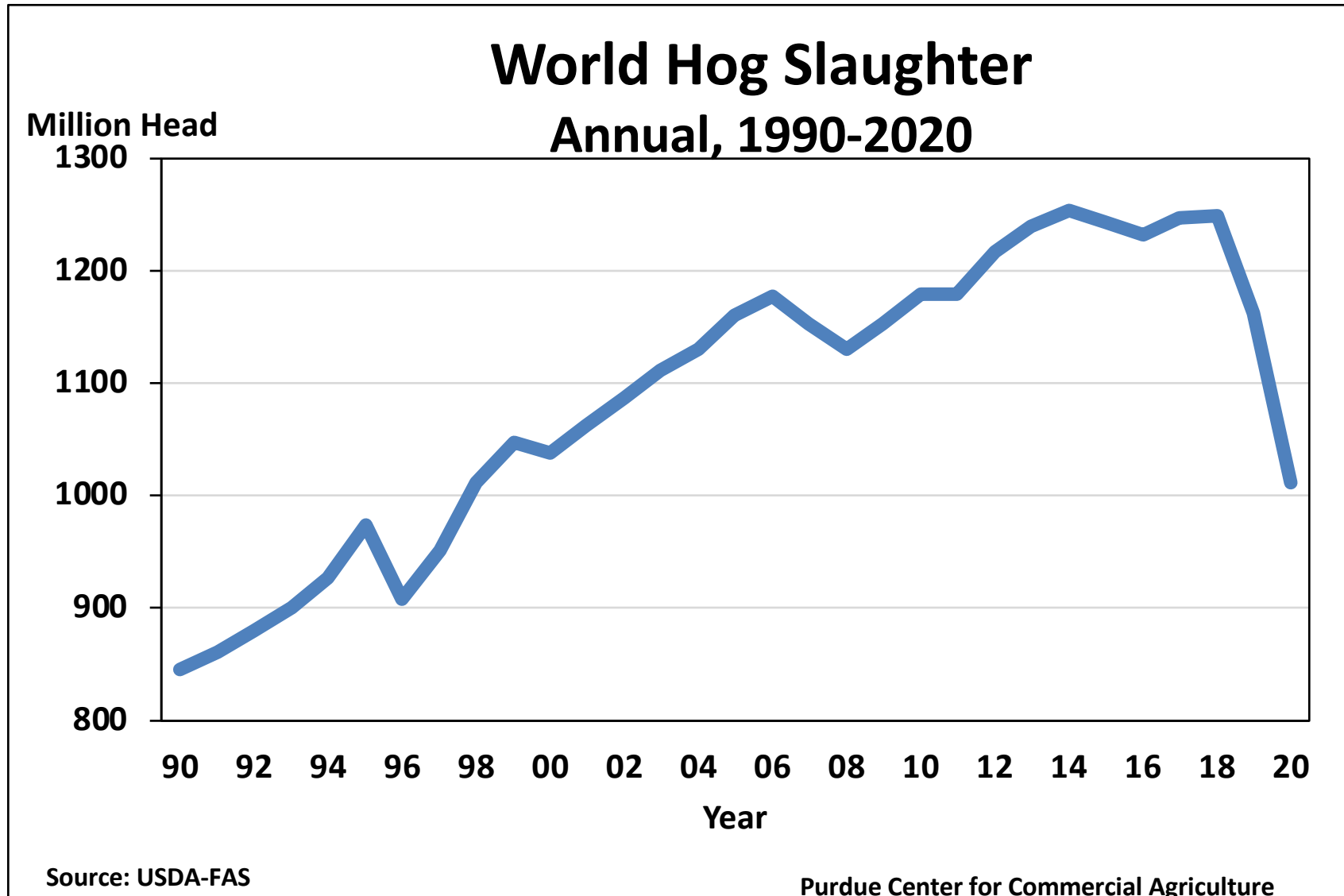
World Soybean Exports Down 3% in 2018 vs. 2017 While U.S. Exports Declined by 18%

Total Soybean Exports World vs. U.S., 1975-2019

Billion Bu.



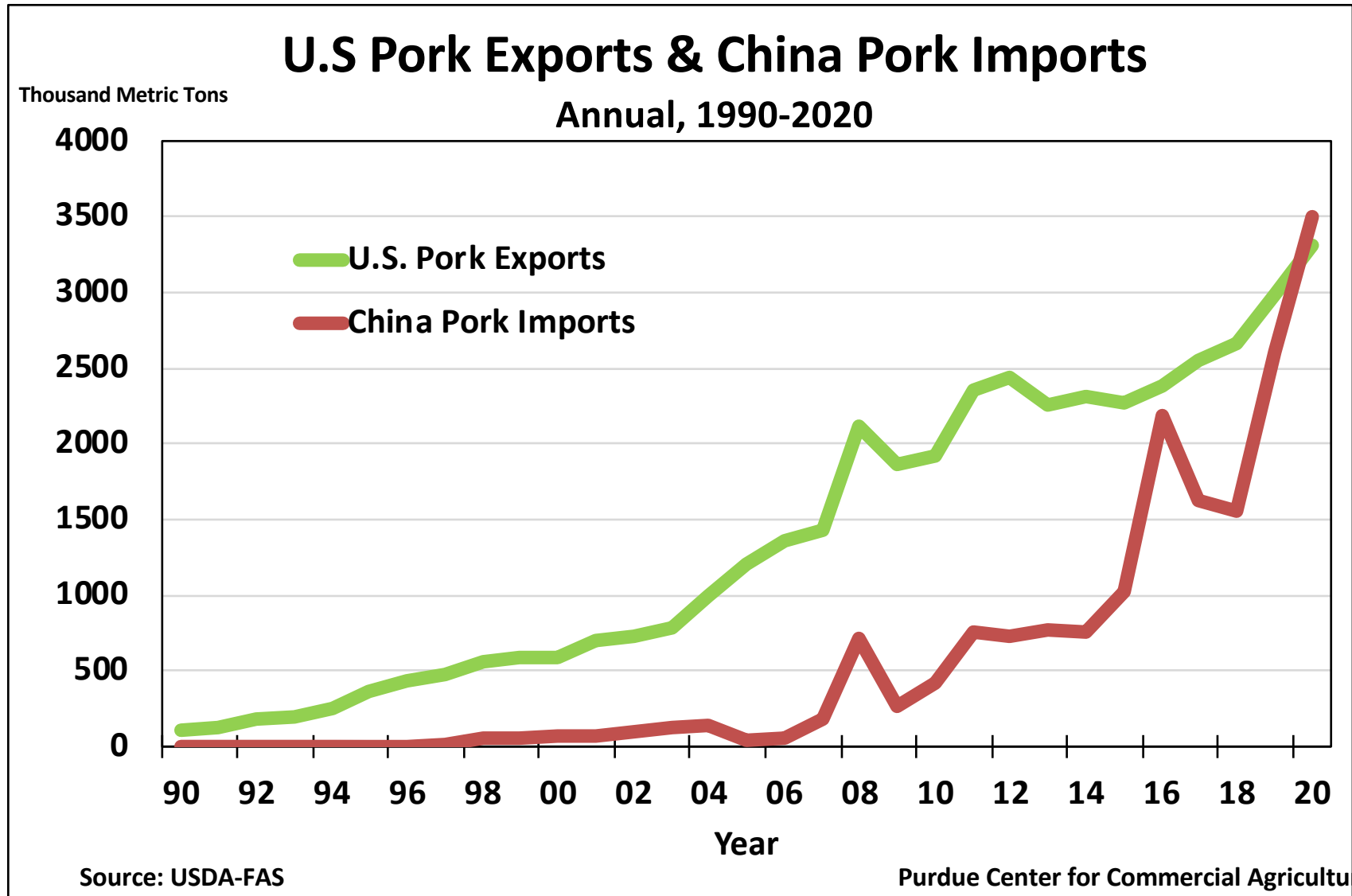
World Pork Supplies Dropping



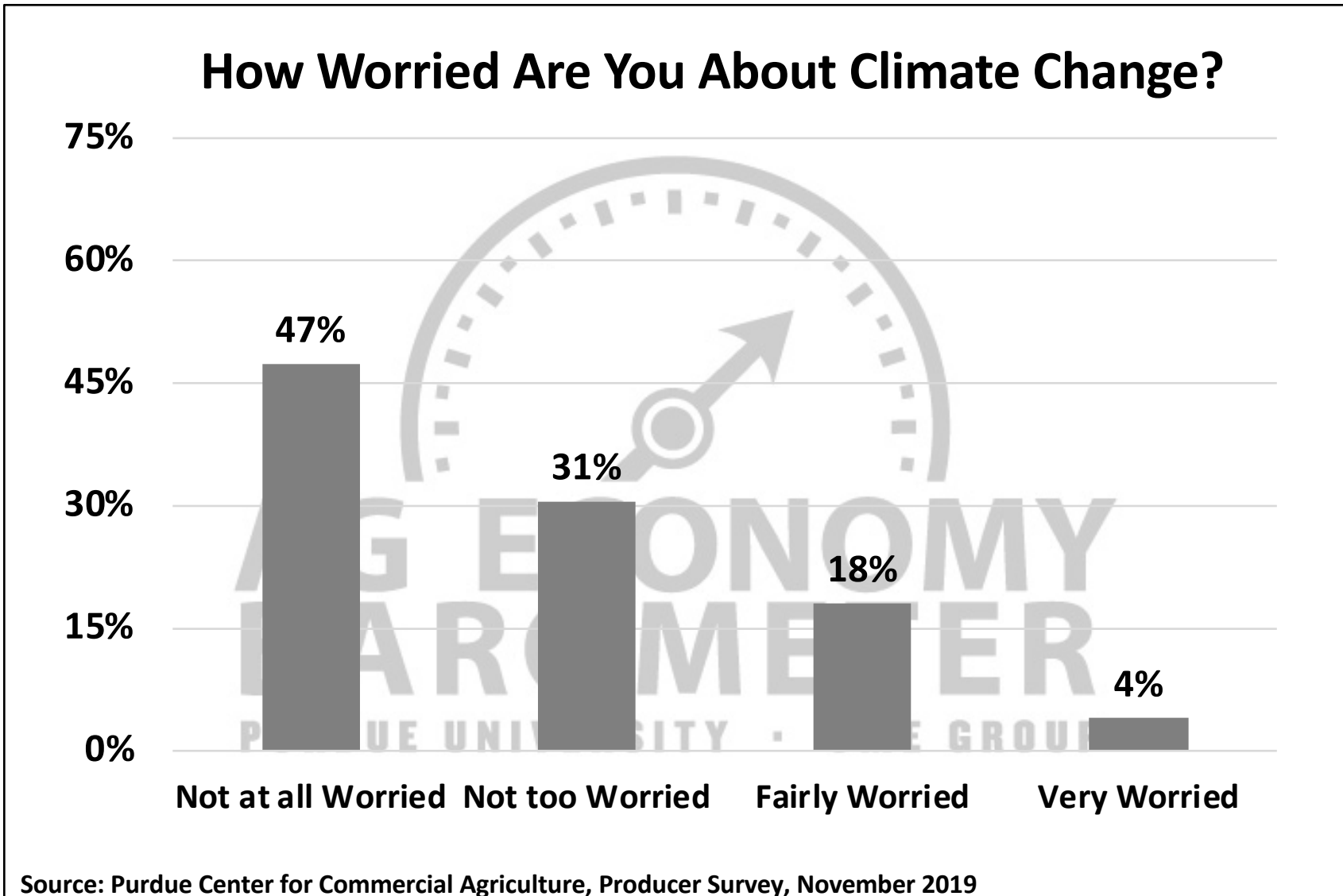
ASF in China Is The Reason



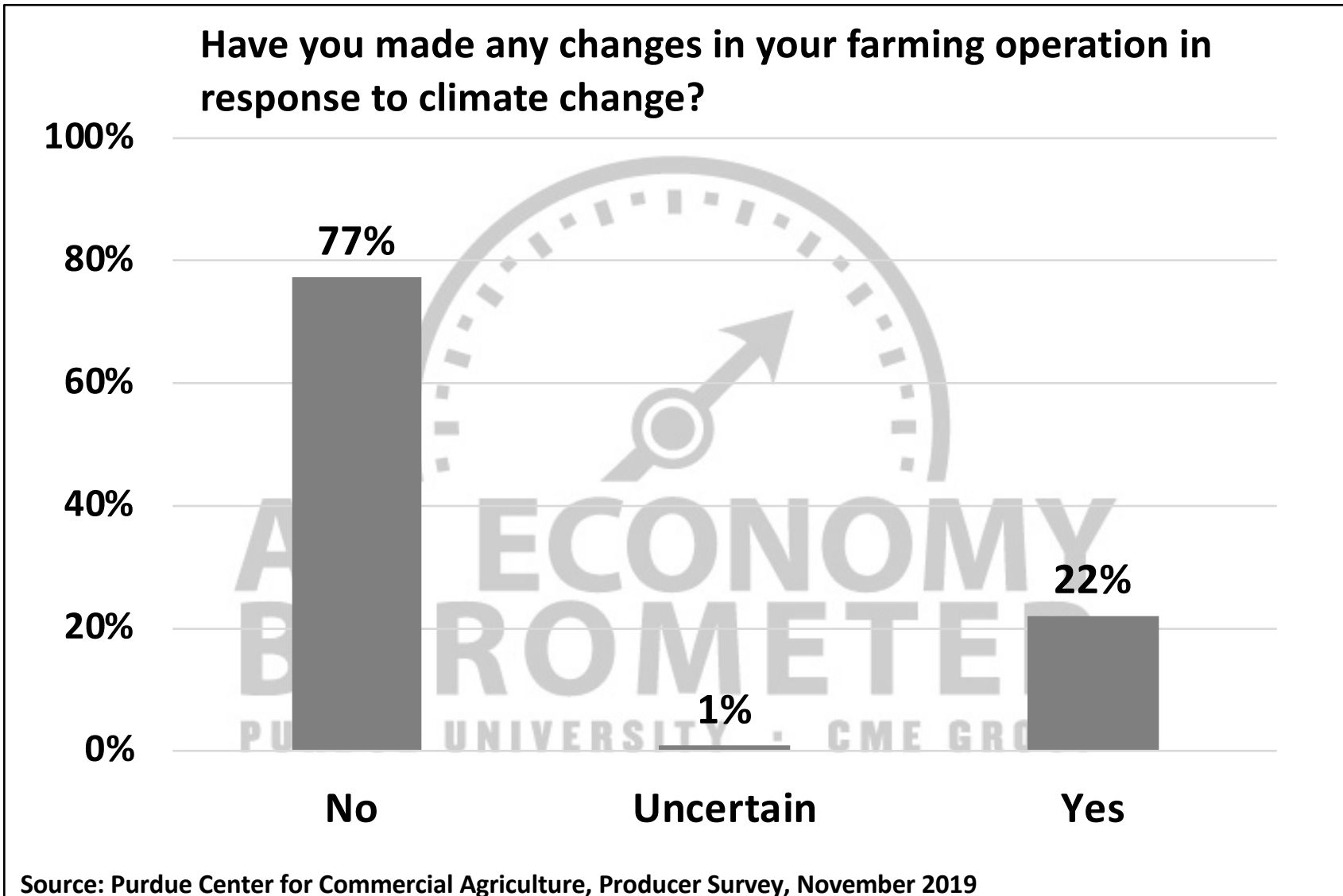
China's Pork Imports Rising Rapidly Opportunity for the U.S.?



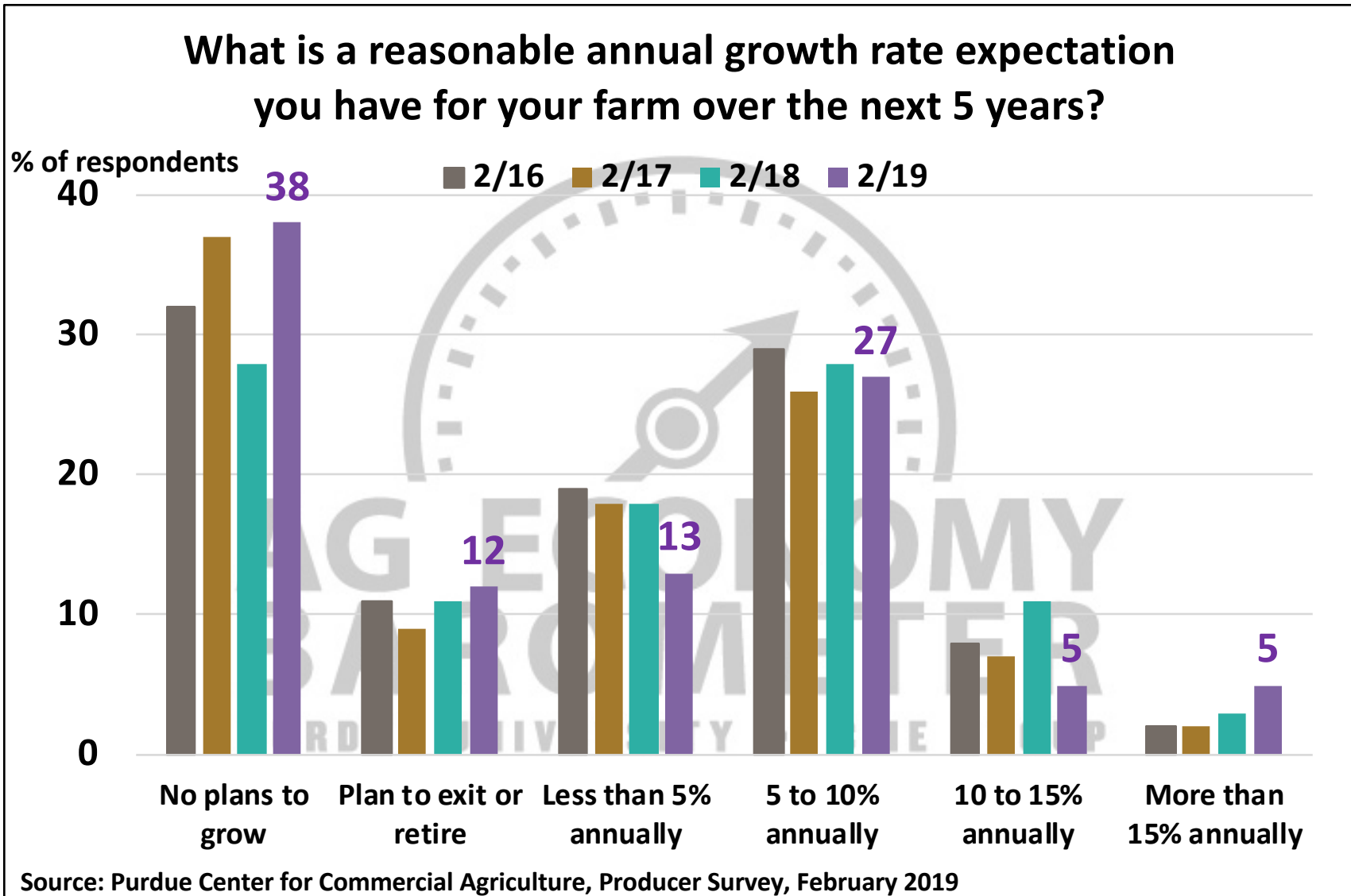
How Do Farmers Feel About Climate Change?



1 out of 5 Farmers Say They Are Already Adapting to Climate Change



Thinking About Your Farming Operation



Growth Questions to Consider

1. Consider Your Options for Growth

- Expand?; Diversify?; Replicate?

2. Look at Options Strategically

- Internally: Your resources?; Comparative advantage?

3. Evaluate Options Carefully

- Expected returns?; Ease of entry (and exit)?; Risks?; Management requirements & skills required

4. Financing Considerations

- Sources of funds: Retained earnings?; Debt?; Partners?

5. What's Your Sustainable Growth Rate

- How much growth can you sustain without increasing financial leverage?
- What's sustainable from a managerial perspective

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TOP FARMER CONFERENCE

Take part in one of the most successful and longest-running management programs geared specifically for farmers at the Beck Agricultural Center, in West Lafayette, IN, on **January 9-10, 2020**. Surrounded by farm management, farm policy, agricultural finance and marketing experts, and a group of your peers, the conference will stimulate your thinking about agriculture's future and how you can position your farm to be successful in the years ahead.

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- 2009: Digital harvest data
 - FarmWorks – manage & archive in house
 - Trimble GPS systems
 - Baby steps...
- 2010: Digital planting data
- 2011: Grain cart scales
 - Harvest data became more accurate → Volume not flow!
- 2012: RTK Active Guidance
 - In-season field operations w/ implement

Purdue Top Farmer 2019



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Crop Basis Tool



Ag Barometer