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Agricultural Economics

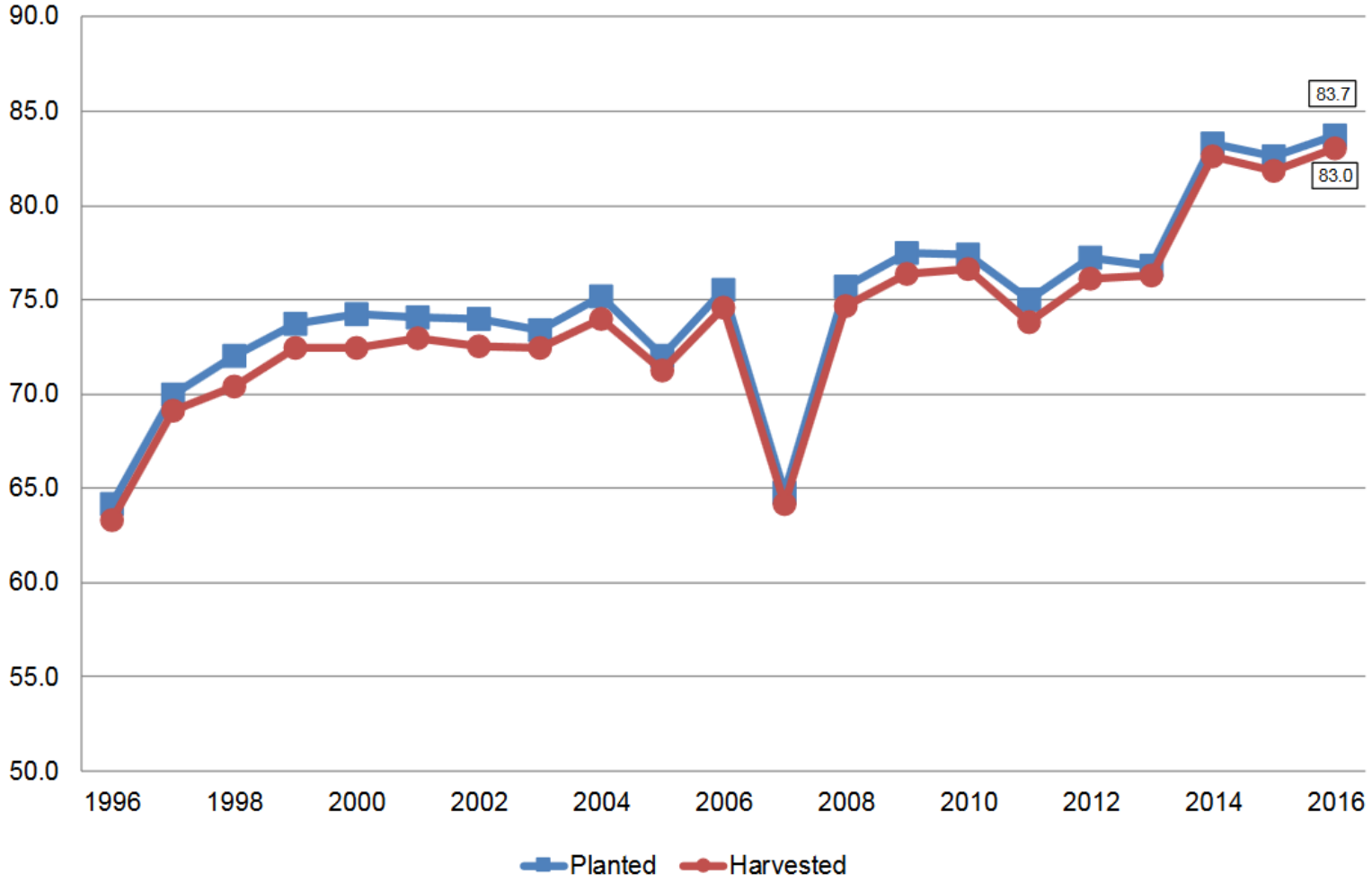
Soybean Situation and Outlook

Brian R. Williams
Department of Agricultural Economics
Mississippi State University
September 27, 2016

Soybeans

- An economist is an expert who will know tomorrow why the things he predicted yesterday didn't happen today.
  - Laurance J. Peter

Soybean Acres
United States



USDA-NASS

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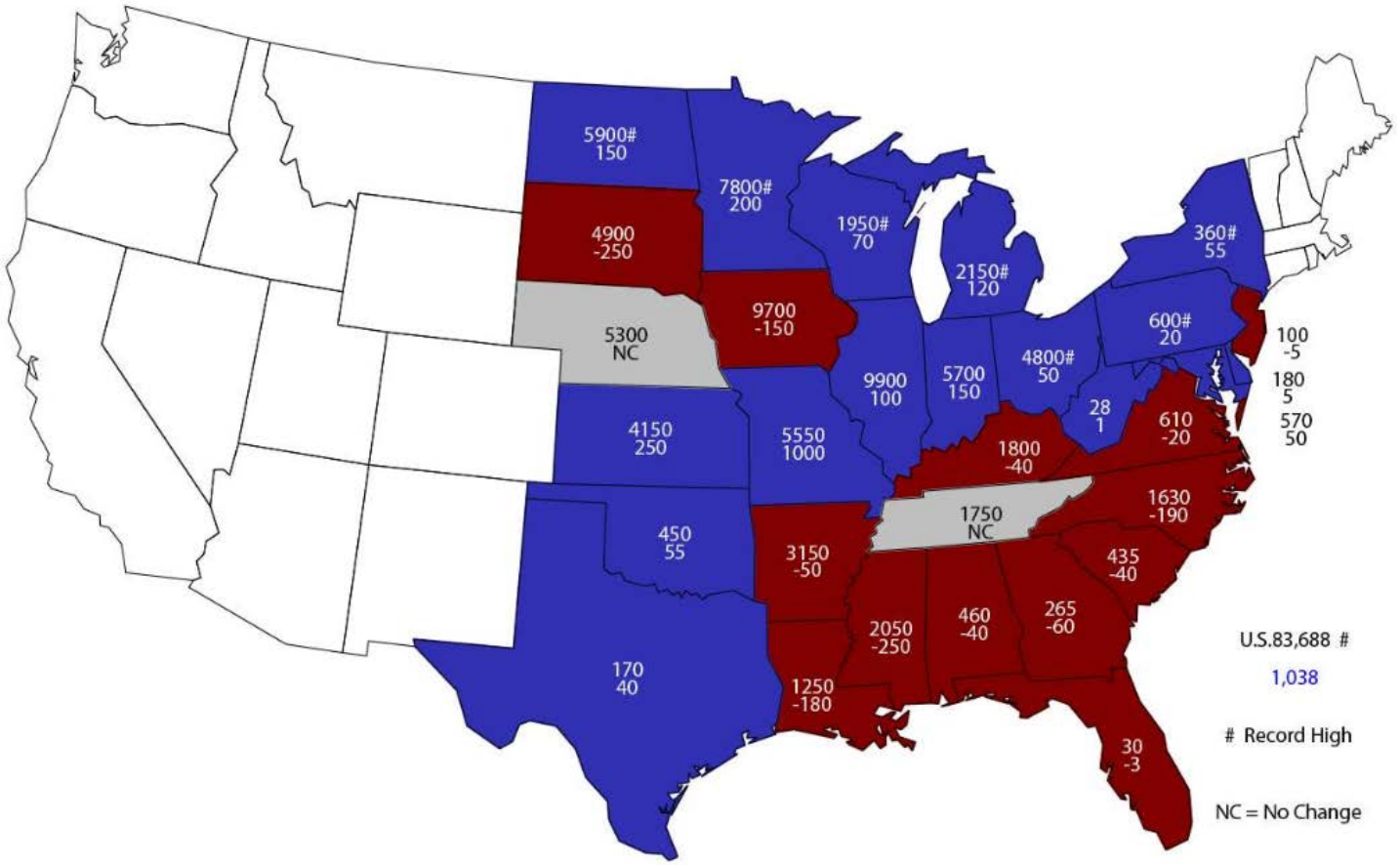
Source: USDA NASS

2016 Soybean Planted Area

(000) Acres and Change From Previous Year



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6-30-16

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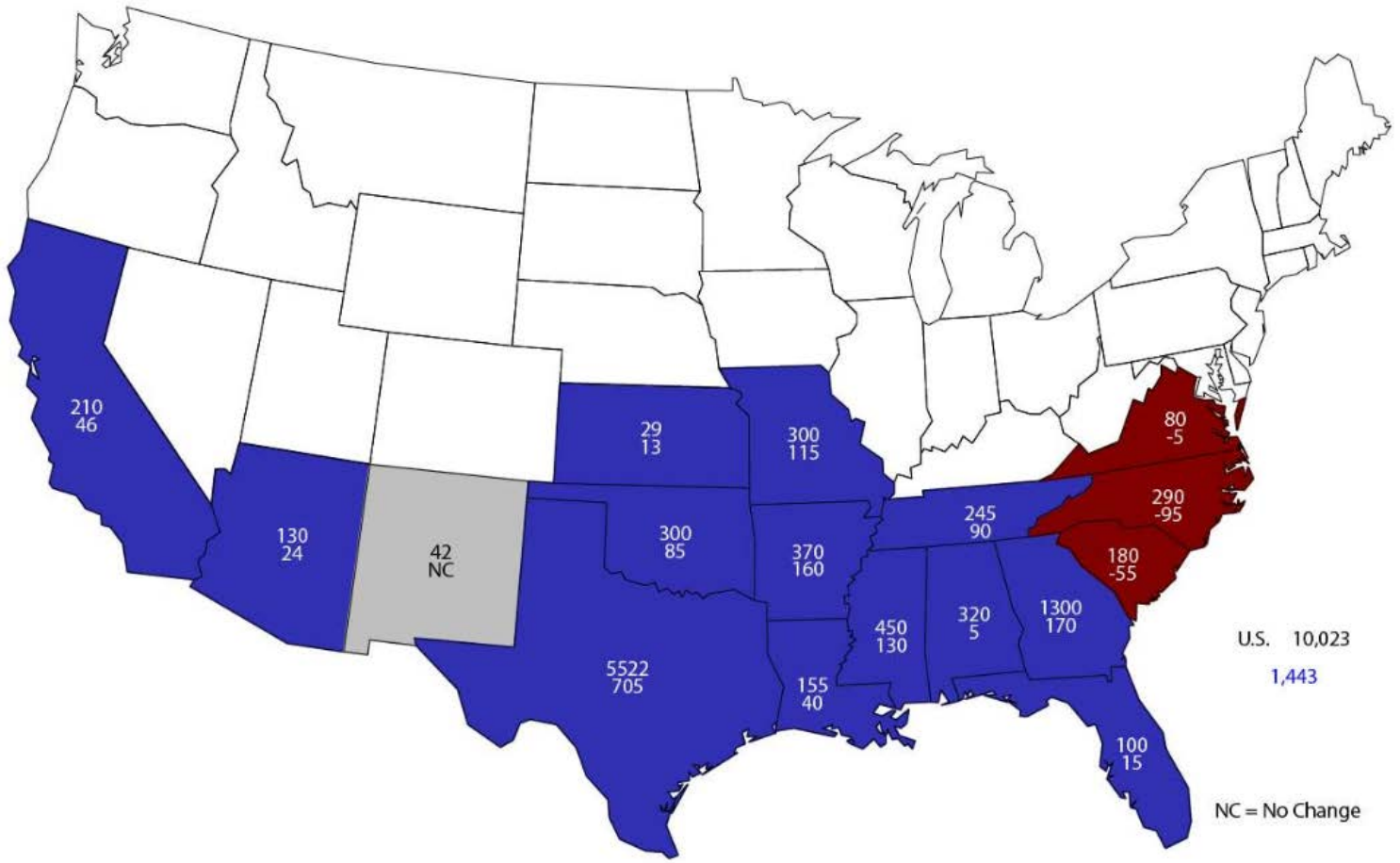
2016 All Cotton Planted Area

Acres (000) and Change From Previous Year



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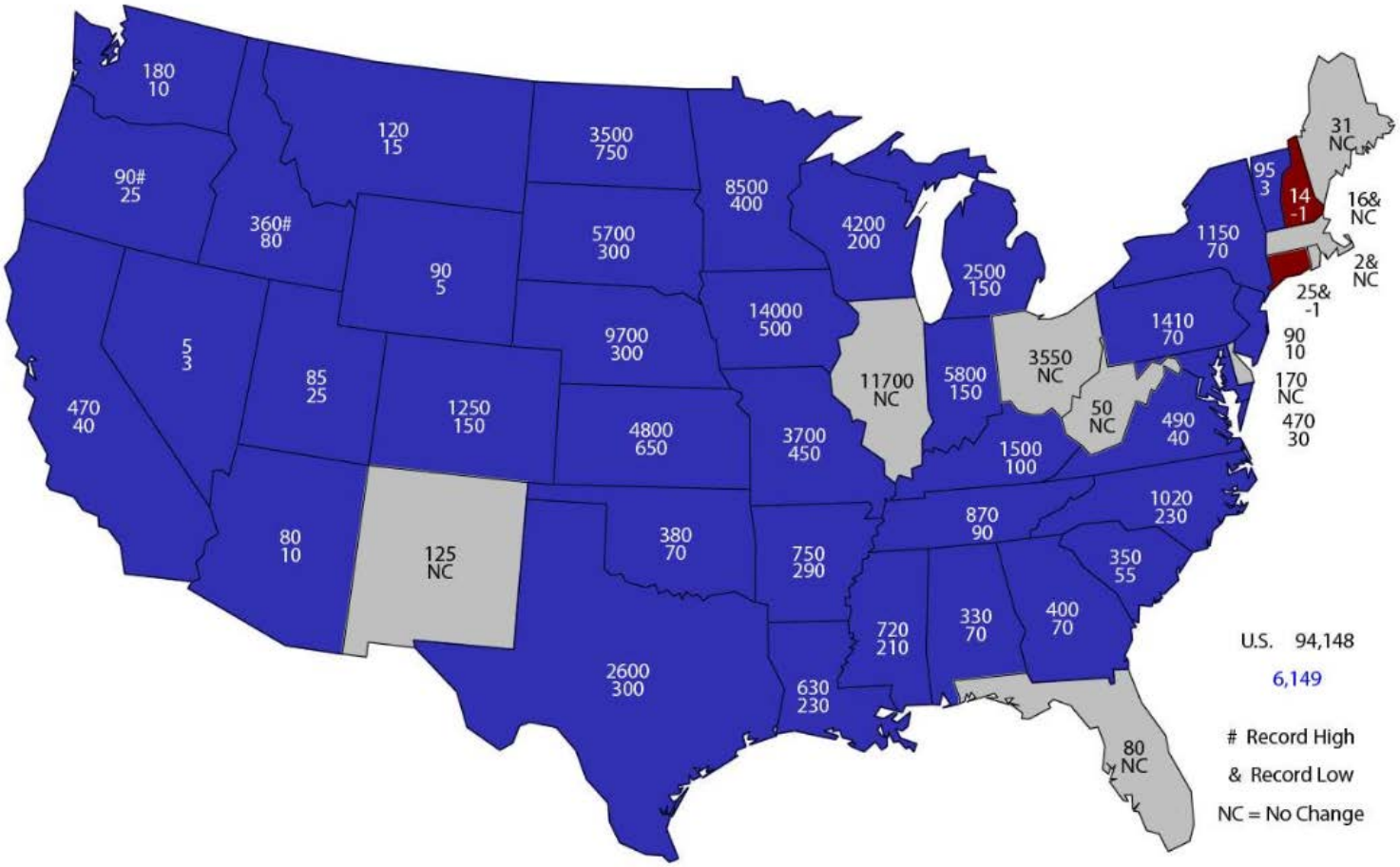
2016 Corn Planted Area

(000) Acres and Change From Previous Year



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Net Return on Irrigated Soybeans in Mississippi Delta

	$7.00	$7.50	$8.00	$8.50	$9.00	$9.50	$10.00	$10.50	$11.00	$11.50	$12.00
35	($256.68)	($239.18)	($221.68)	($204.18)	($186.68)	($169.18)	($151.68)	($134.18)	($116.68)	($99.18)	($81.68)
40	($221.68)	($201.68)	($181.68)	($161.68)	($141.68)	($121.68)	($101.68)	($81.68)	($61.68)	($41.68)	($21.68)
45	($186.68)	($164.18)	($141.68)	($119.18)	($96.68)	($74.18)	($51.68)	($29.18)	($6.68)	$15.82	$38.32
50	($151.68)	($126.68)	($101.68)	($76.68)	($51.68)	($26.68)	($1.68)	$23.32	$48.32	$73.32	$98.32
55	($116.68)	($89.18)	($61.68)	($34.18)	($6.68)	$20.82	$48.32	$75.82	$103.32	$130.82	$158.32
60	($81.68)	($51.68)	($21.68)	$8.32	$38.32	$68.32	$98.32	$128.32	$158.32	$188.32	$218.32
65	($46.68)	($14.18)	$18.32	$50.82	$83.32	$115.82	$148.32	$180.82	$213.32	$245.82	$278.32
70	($11.68)	$23.32	$58.32	$93.32	$128.32	$163.32	$198.32	$233.32	$268.32	$303.32	$338.32

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Net Return on Dryland Soybeans in Mississippi Delta

	$7.00	$7.50	$8.00	$8.50	$9.00	$9.50	$10.00	$10.50	$11.00	$11.50	$12.00
30	($187.20)	($172.20)	($157.20)	($142.20)	($127.20)	($112.20)	($97.20)	($82.20)	($67.20)	($52.20)	($37.20)
35	($152.20)	($134.70)	($117.20)	($99.70)	($82.20)	($64.70)	($47.20)	($29.70)	($12.20)	$5.30	$22.80
40	($117.20)	($97.20)	($77.20)	($57.20)	($37.20)	($17.20)	$2.80	$22.80	$42.80	$62.80	$82.80
45	($82.20)	($59.70)	($37.20)	($14.70)	$7.80	$30.30	$52.80	$75.30	$97.80	$120.30	$142.80
50	($47.20)	($22.20)	$2.80	$27.80	$52.80	$77.80	$102.80	$127.80	$152.80	$177.80	$202.80
55	($12.20)	$15.30	$42.80	$70.30	$97.80	$125.30	$152.80	$180.30	$207.80	$235.30	$262.80
60	$22.80	$52.80	$82.80	$112.80	$142.80	$172.80	$202.80	$232.80	$262.80	$292.80	$322.80
65	$57.80	$90.30	$122.80	$155.30	$187.80	$220.30	$252.80	$285.30	$317.80	$350.30	$382.80

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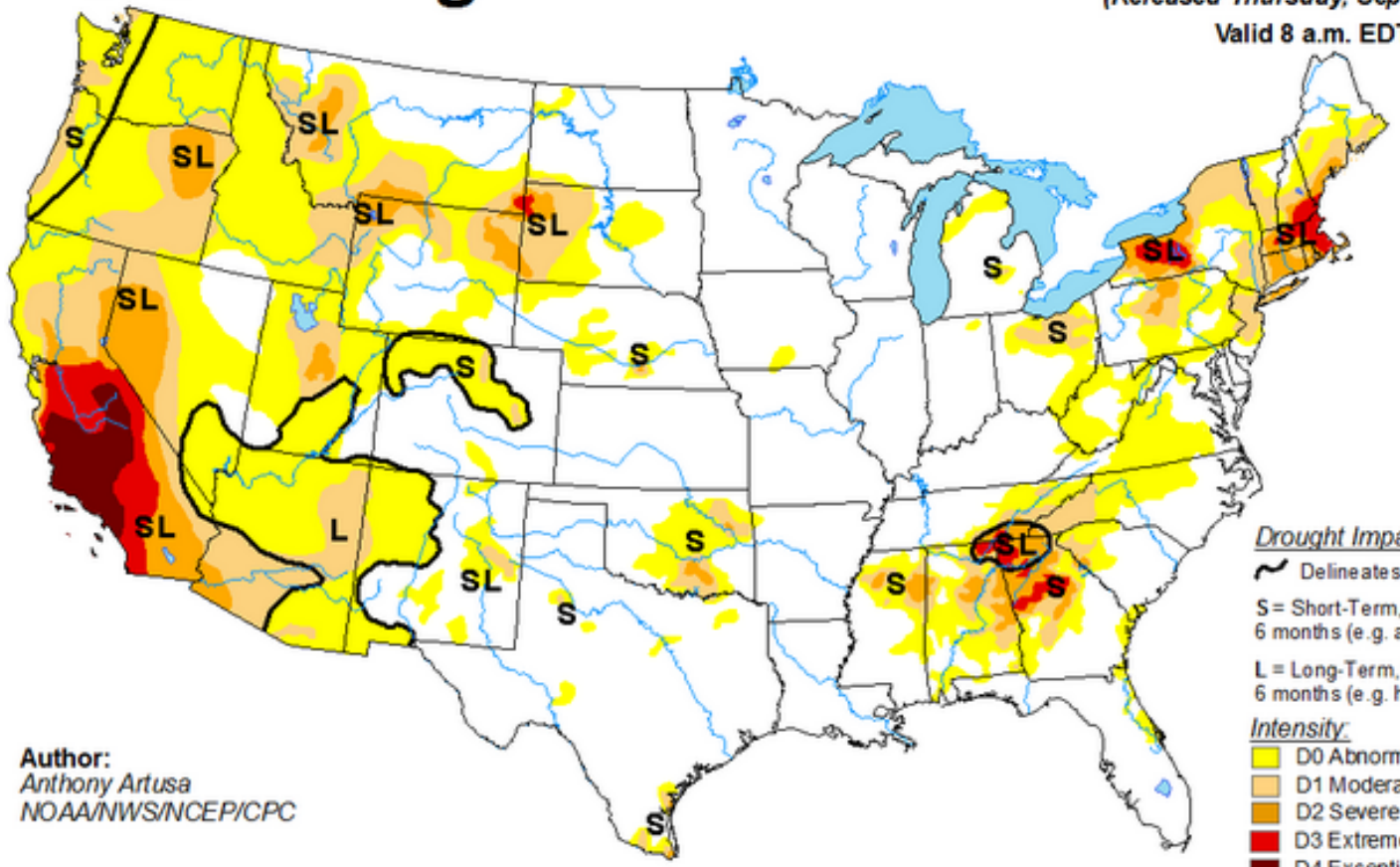
U.S. Drought Monitor

September 20, 2016

(Released Thursday, Sep. 22, 2016)

Valid 8 a.m. EDT



Author:
Anthony Artusa
NOAA/NWS/NCEP/CPC

Drought Impact Types:

Delineates dominant impacts

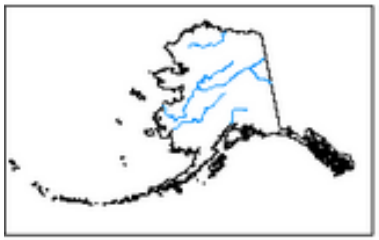
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

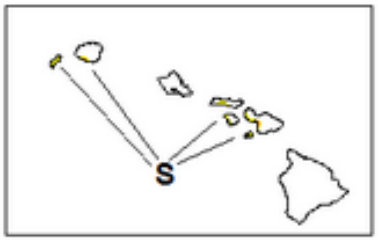
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

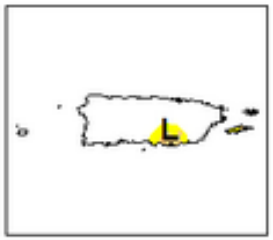
Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.







USDA

National Drought Mitigation Center

http://droughtmonitor.unl.edu/

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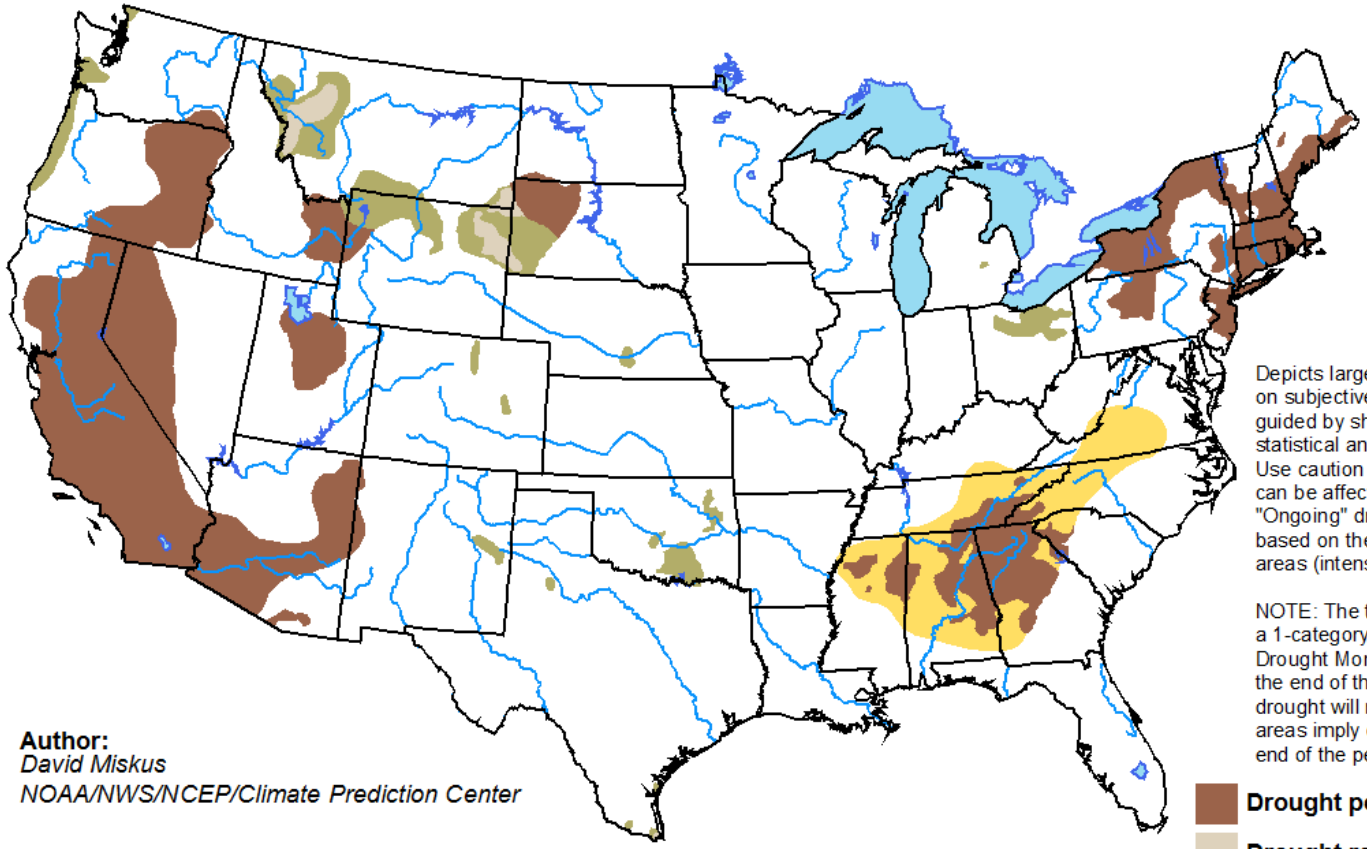
U.S. Seasonal Drought Outlook

Valid for September 15 - December 31, 2016

Released September 15, 2016

Drought Tendency During the Valid Period

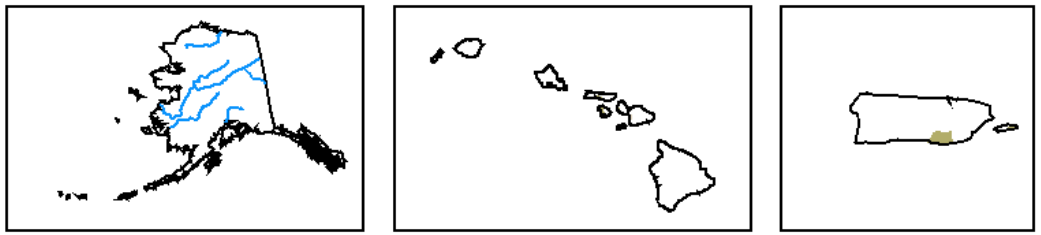


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- **Drought persists**
- **Drought remains but improves**
- **Drought removal likely**
- **Drought development likely**

Author:
David Miskus
NOAA/NWS/NCEP/Climate Prediction Center



http://go.usa.gov/3eZ73

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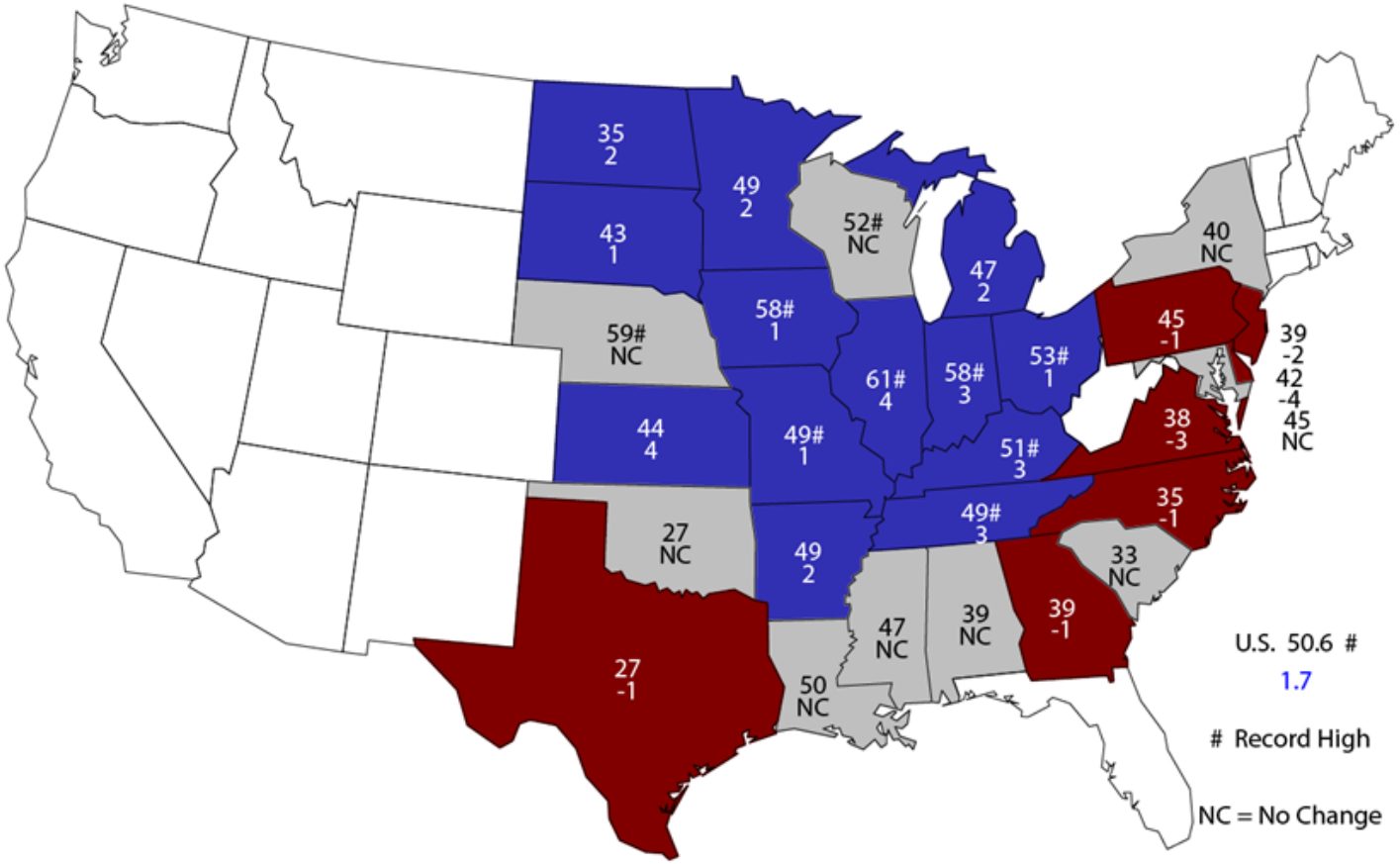
September 1, 2016 Soybean Yield

Bushels and Change From Previous Month



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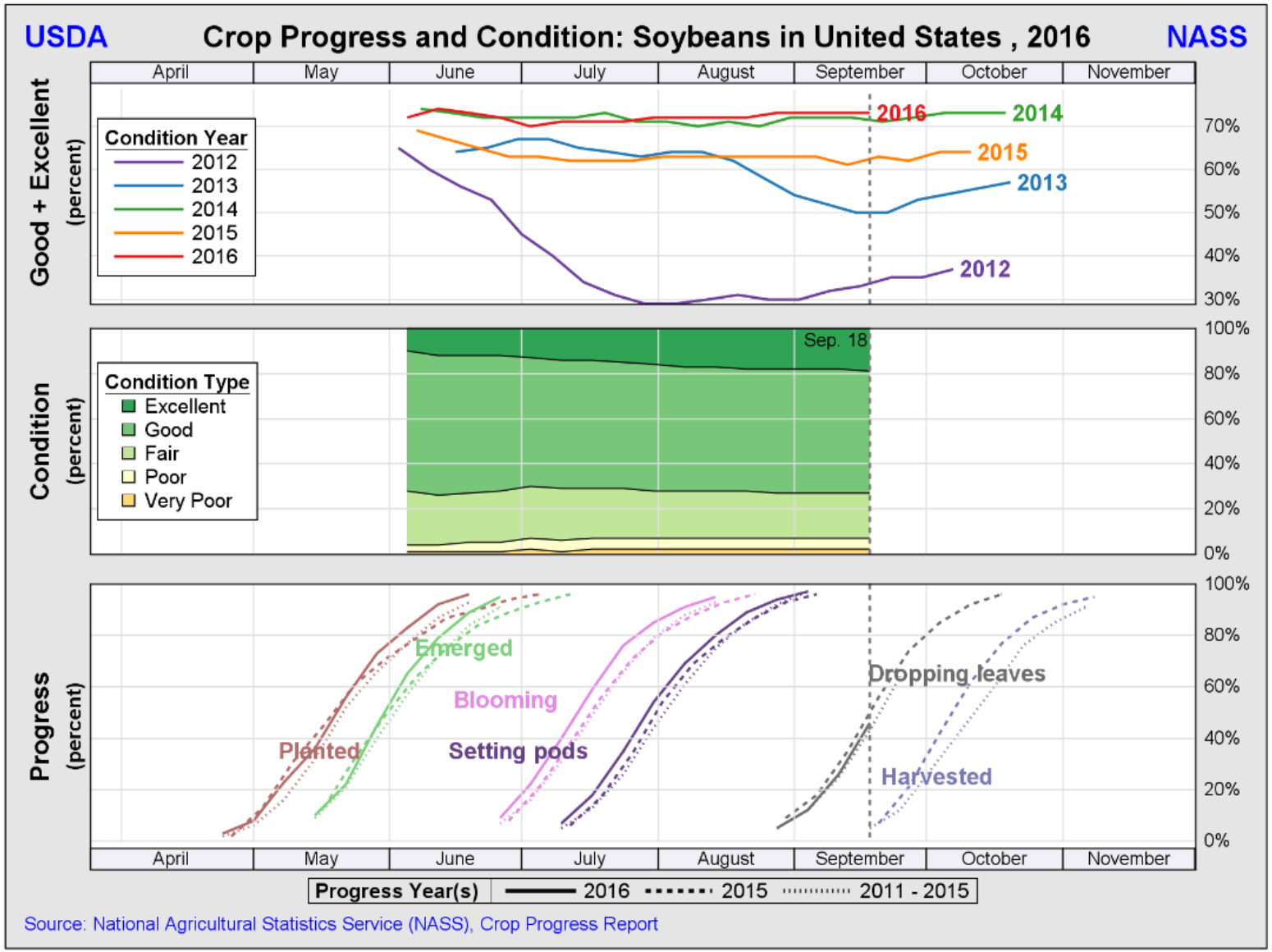

Source: National Agricultural Statistics Service (NASS), Crop Progress Report

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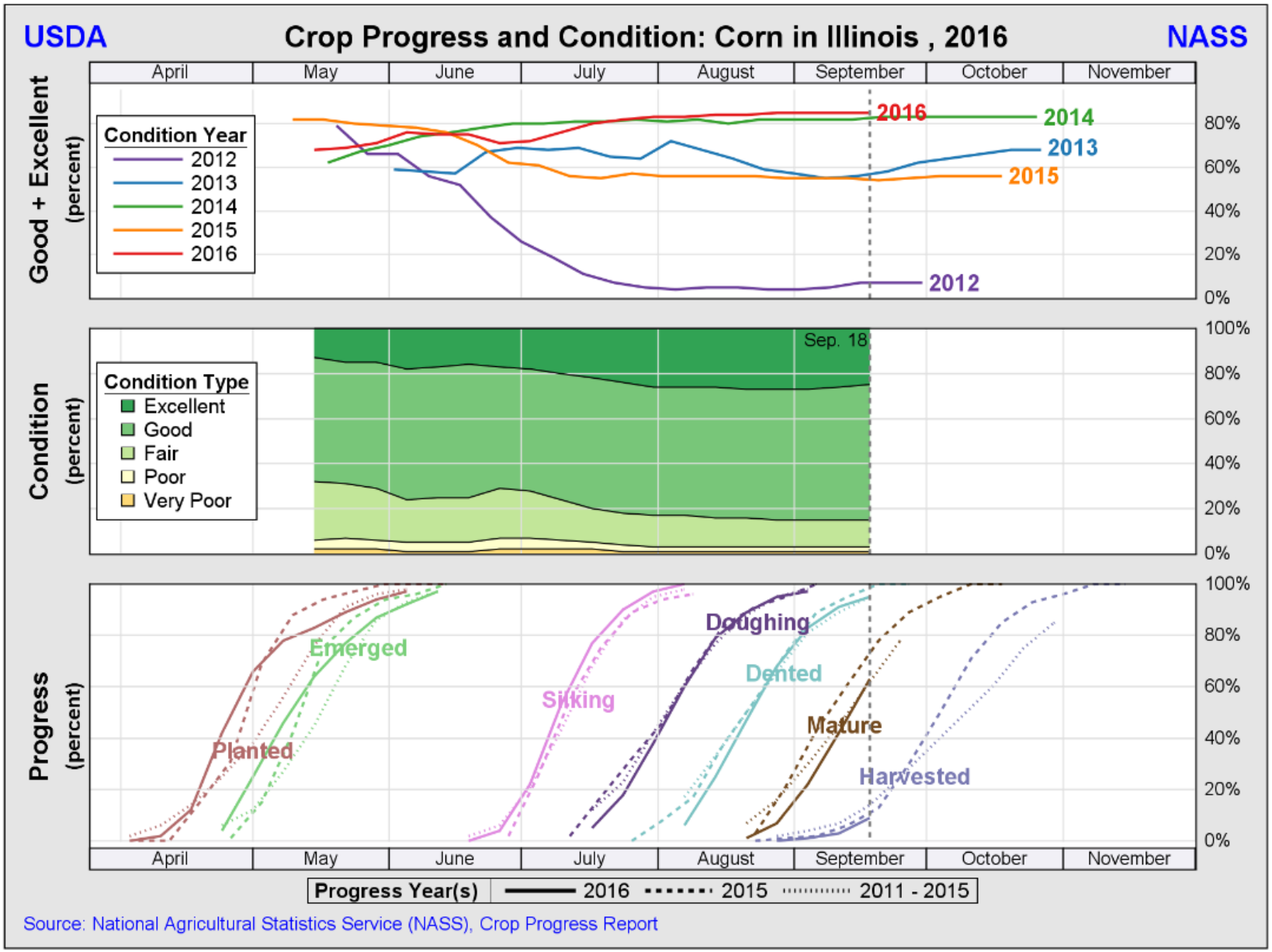

Source: National Agricultural Statistics Service (NASS), Crop Progress Report

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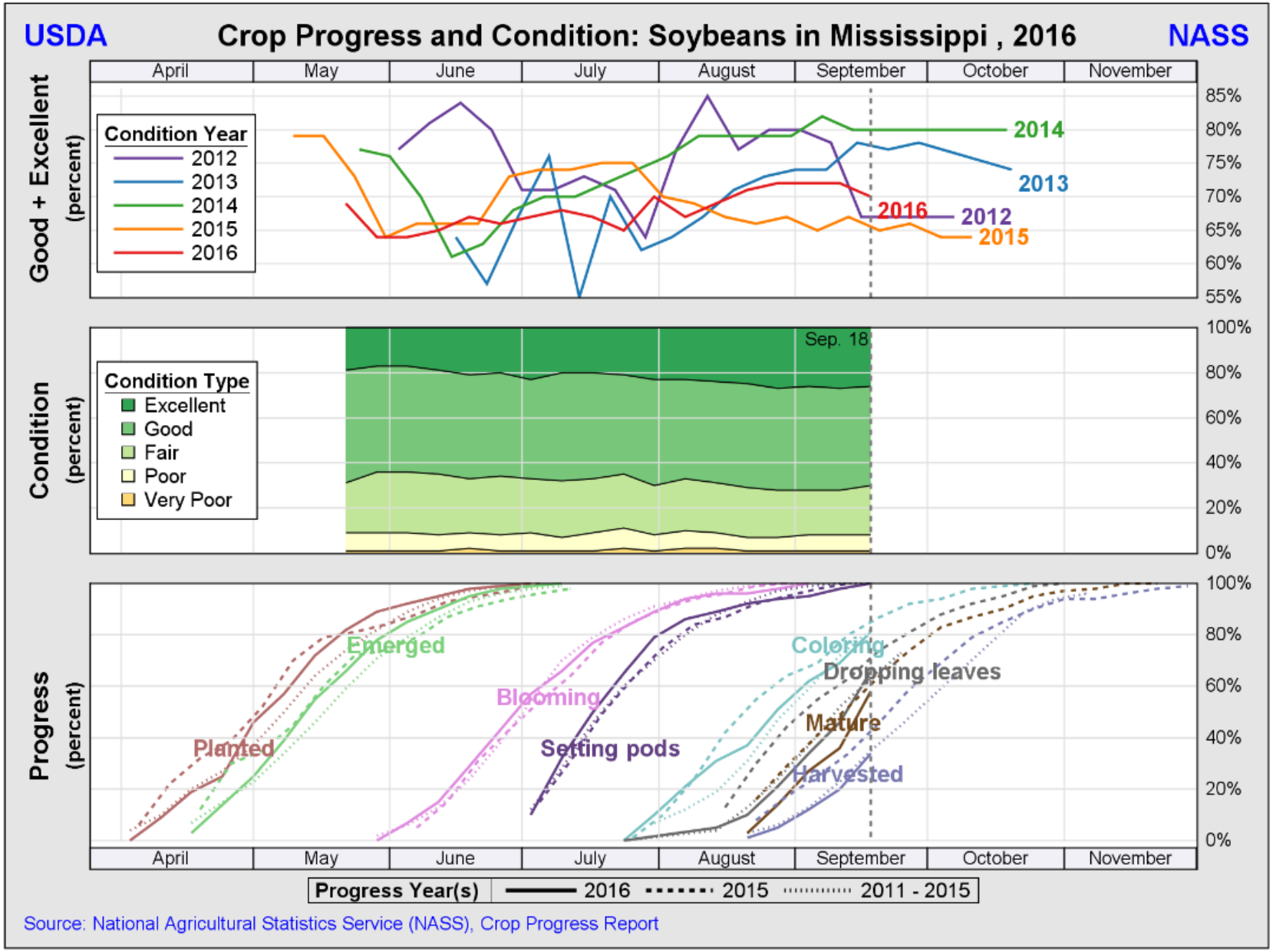

Source: National Agricultural Statistics Service (NASS), Crop Progress Report

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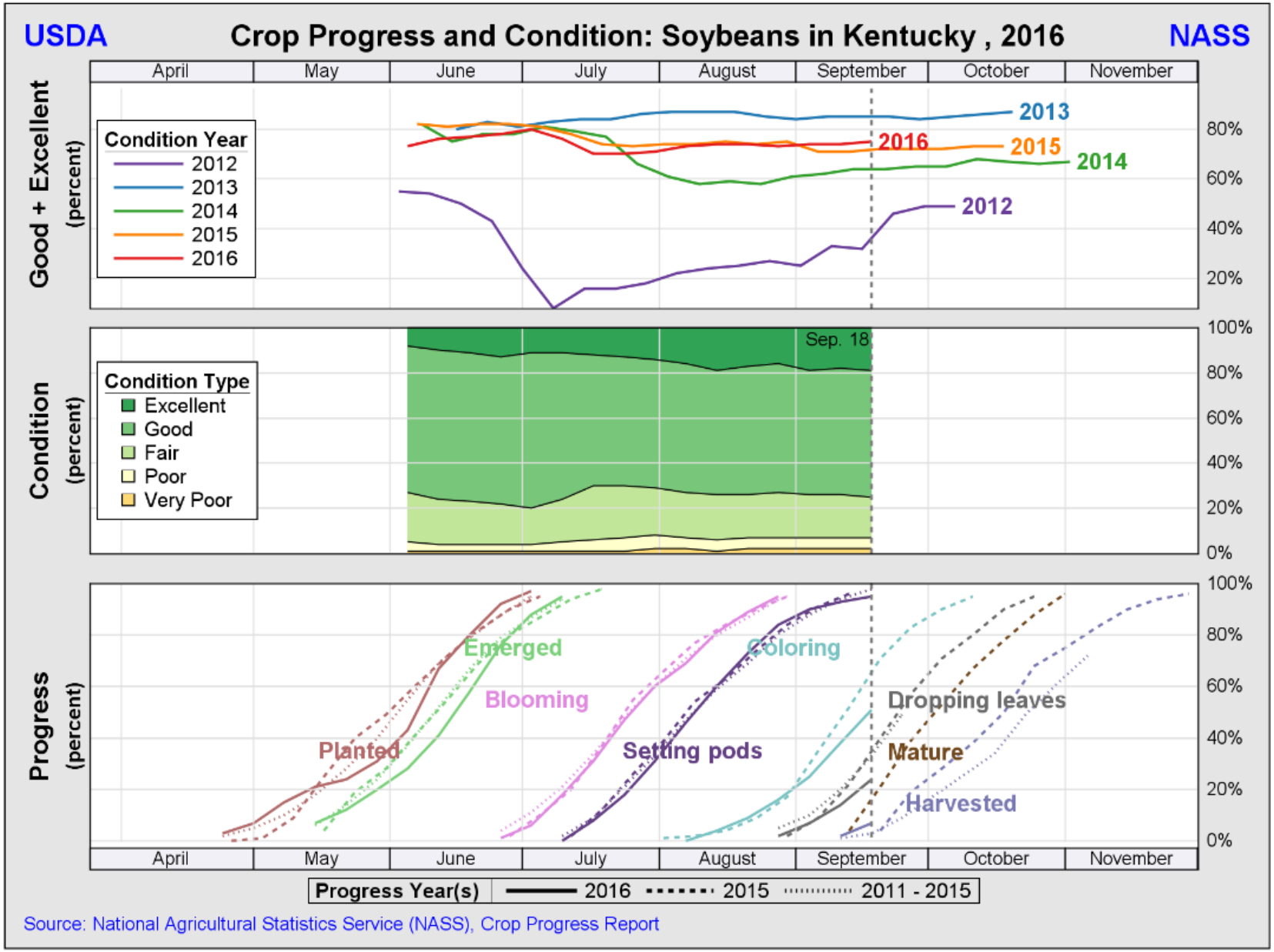

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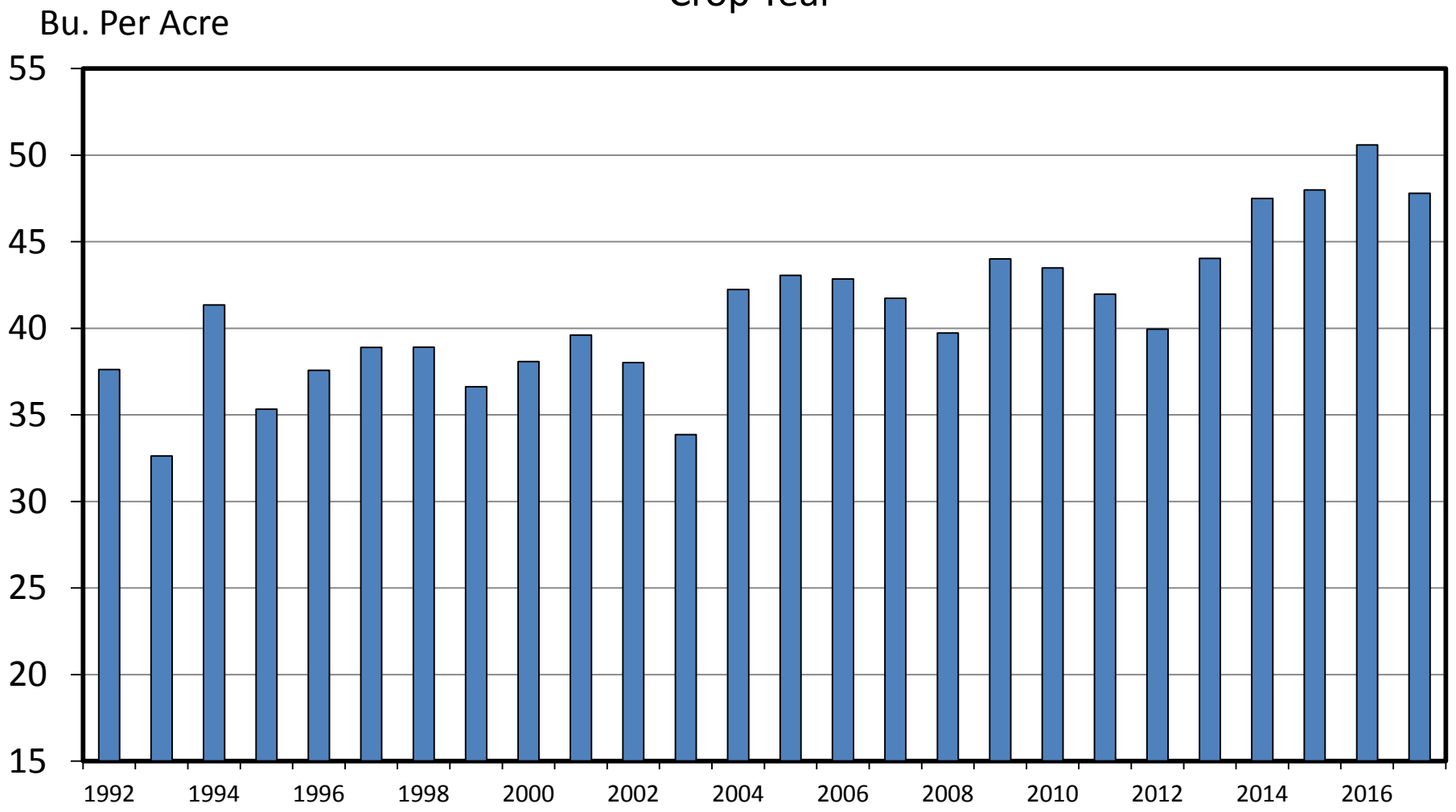
NATIONAL AVERAGE SOYBEAN YIELD

Crop Year



Data Source: USDA-ERS, Compiled by LMIC

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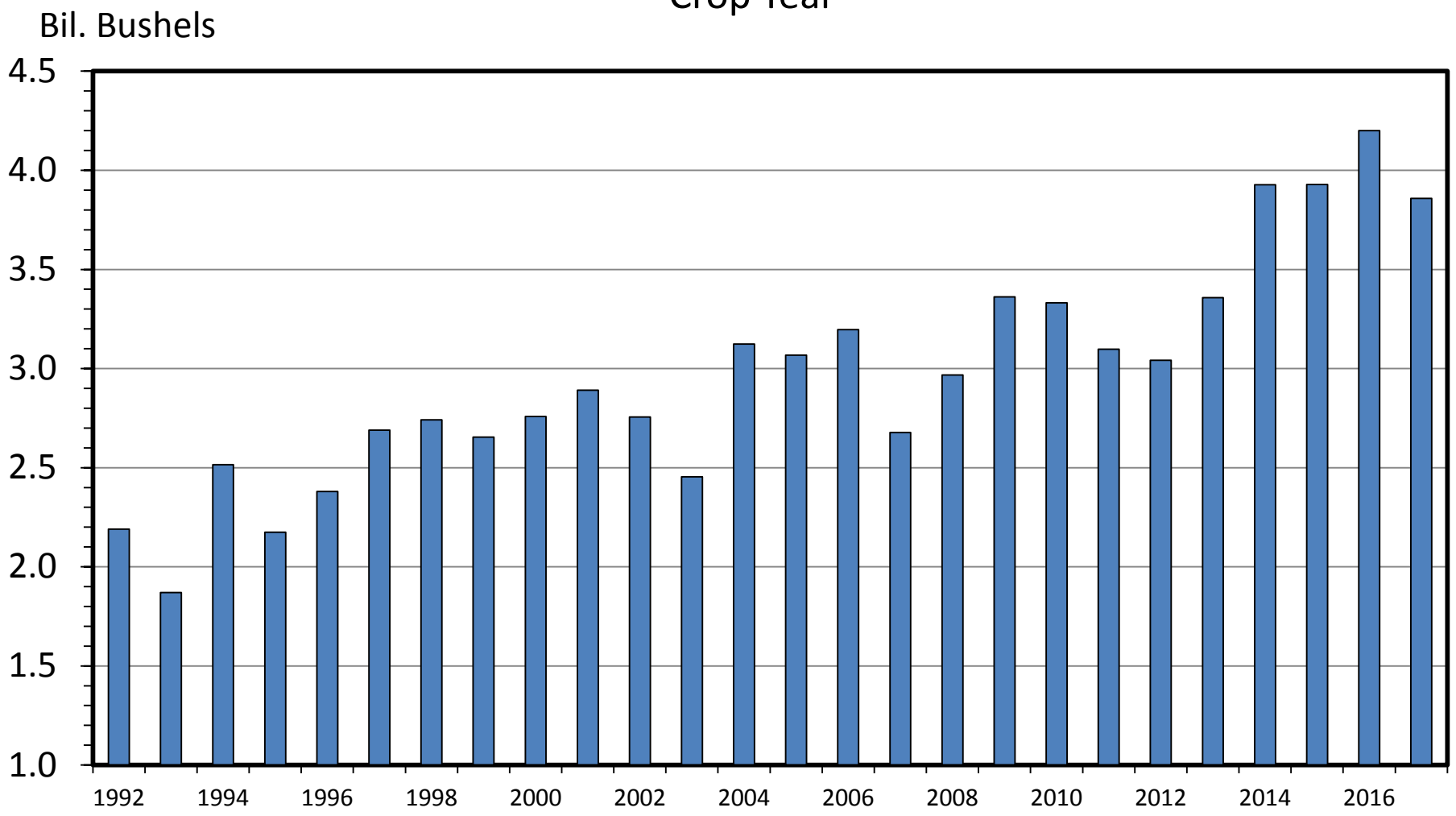
US ANNUAL SOYBEAN PRODUCTION

Crop Year



Data Source: USDA-ERS, Compiled by LMIC

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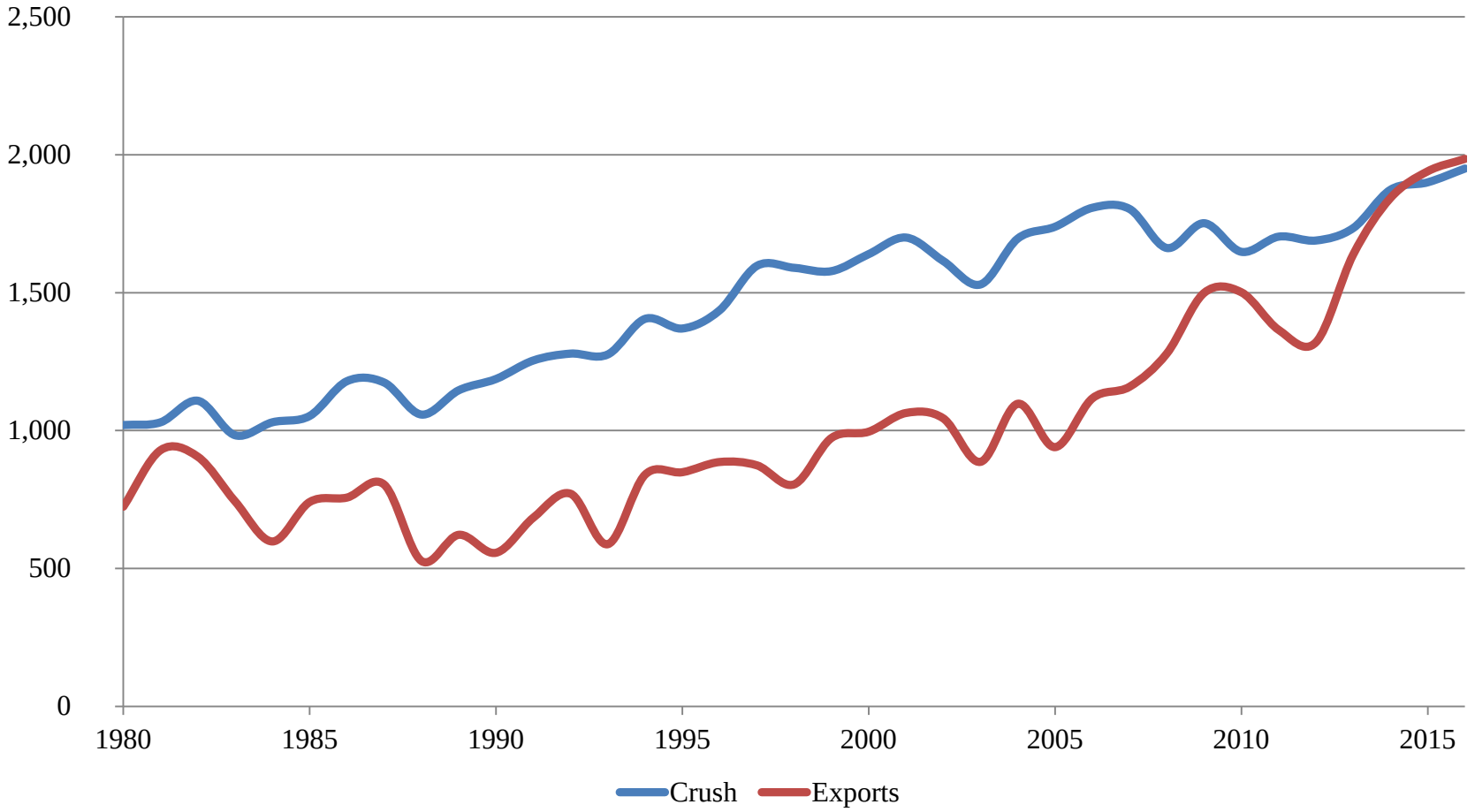
Demand for Soybeans

- Crush
  - Hogs
  - Poultry
  - Dairy
  - Beef
- Export
  - International Competition…

U.S. Soybean Disappearance (Million Bushels)



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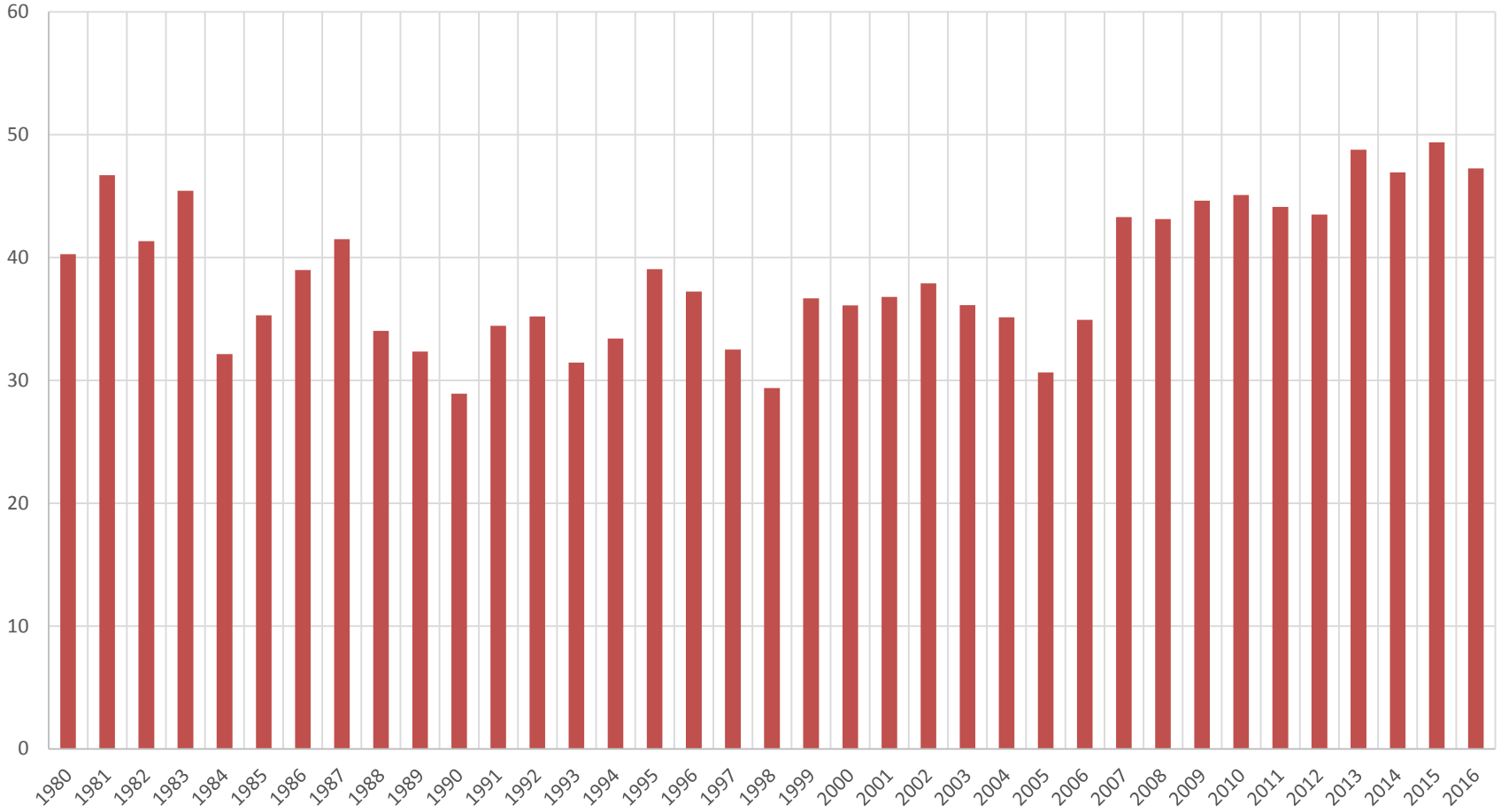
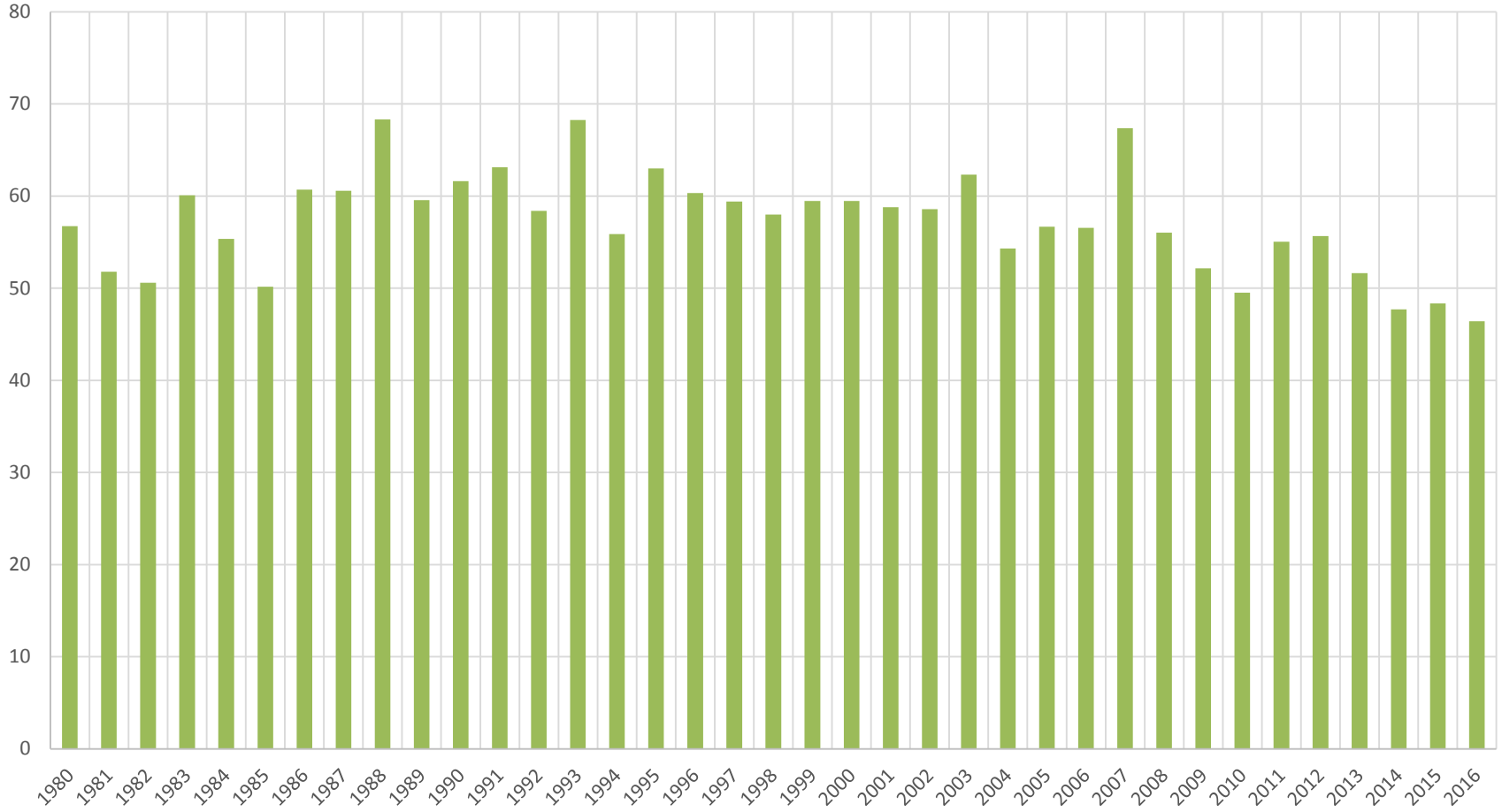
Source: USDA ERS

Exports/Production (%)

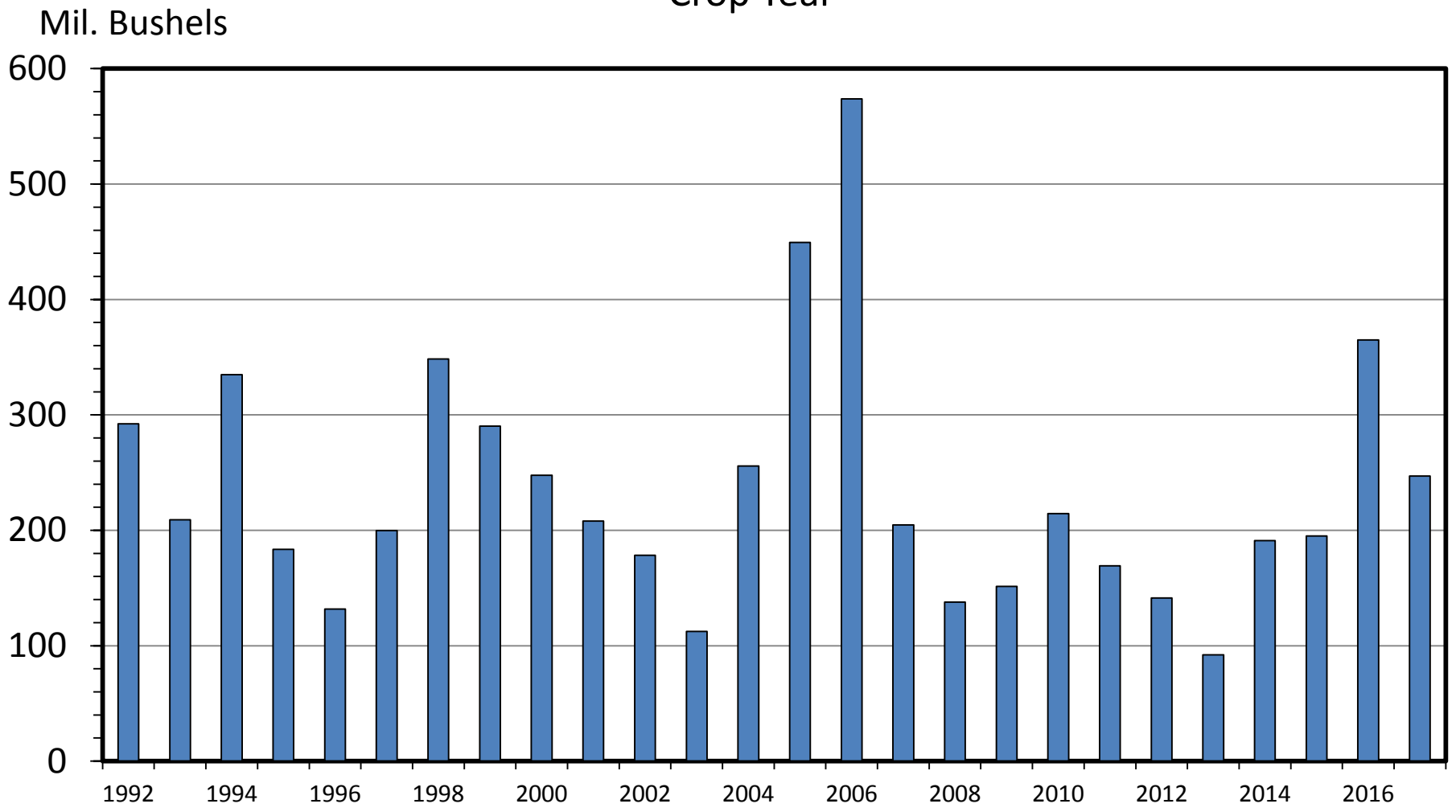


Domestic Crush/Production (%)



US ANNUAL SOYBEAN ENDING STOCKS

Crop Year



Data Source: USDA-ERS, Compiled by LMIC

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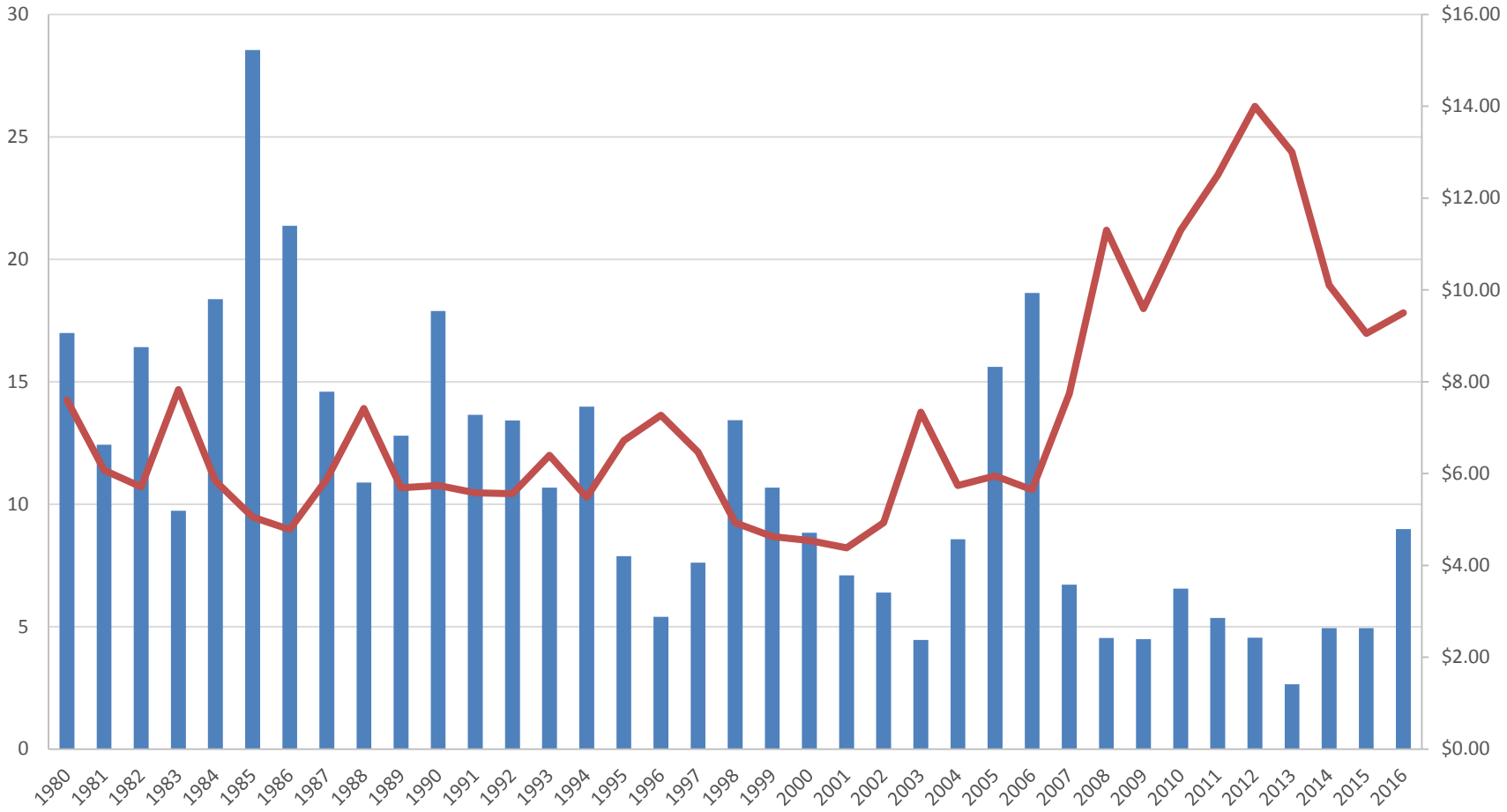
Stocks/Use Ratio (%)



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Global Production (1,000 Metric Tons)

	2015/16	Sep 2016/17	% Change	% of global Production
United States	106,934	114,332	6.92	34.60
Brazil	96,500	101,000	4.66	30.57
Argentina	56,800	57,000	0.35	17.25
China	11,600	12,500	7.76	3.78
India	7,000	9,700	38.57	2.94
Paraguay	9,000	9,170	1.89	2.78
Canada	6,235	5,830	-6.50	1.76
Other	18,903	20,894	10.53	6.32
Total	312,972	330,426	5.58	100.00

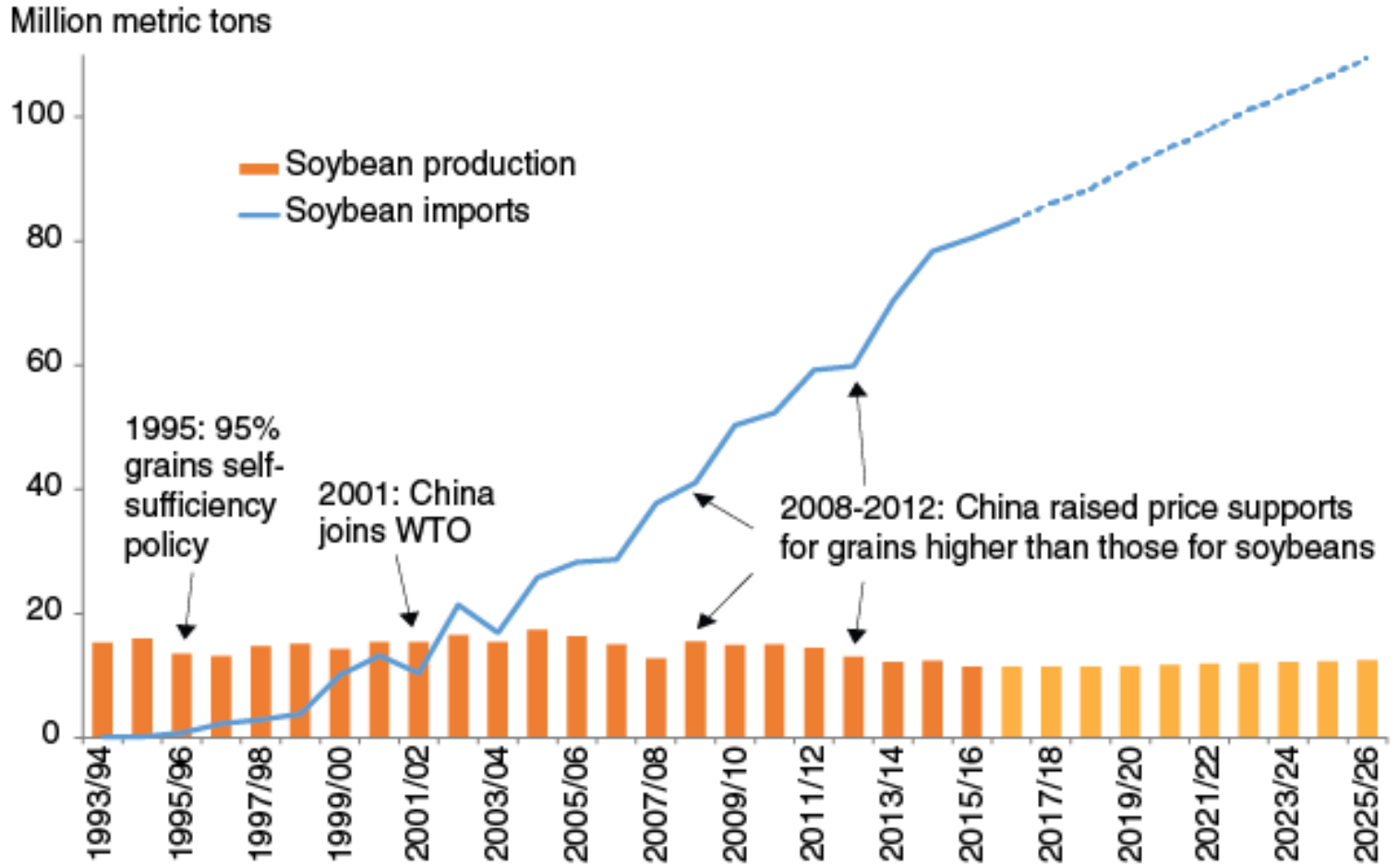
Global Exports (1,000 Metric Tons)

	2015/16	Sep 2016/17	% Change	% of global Exports
Brazil	55,500	58,400	5.23	42.25
United States	52,798	54,023	2.32	39.08
Argentina	10,300	10,650	3.40	7.70
Paraguay	4,800	4,950	3.13	3.58
Canada	4,258	3,850	-9.58	2.79
Other	5,432	6,354	16.97	4.60
Total	133,088	138,227	3.86	100.00

Global Imports (1,000 Metric Tons)

	2015/16	Sep 2016/17	% Change	% of Global Imports
China	82,500	86,000	4.24	63.35
European Union	13,700	13,000	-5.11	9.58
Mexico	3,950	4,000	1.27	2.95
Japan	3,250	3,100	-4.62	2.28
Taiwan	2,550	2,600	1.96	1.92
Thailand	2,600	2,450	-5.77	1.80
Egypt	1,300	2,400	84.62	1.77
Indonesia	2,300	2,400	4.35	1.77
Turkey	2,200	2,250	2.27	1.66
Russia	2,200	2,200	0.00	1.62
Other	14,313	15,344	7.20	11.30
Total	130,863	135,744	3.73	100.00

Policies drive China's soybean imports and production



Note: Dashed line and light bars represent the projection period. WTO= World Trade Organization.
Source: USDA, Economic Research Service based on USDA's 2016 international baseline data, available at www.ers.usda.gov/data-products/international-baseline-data.aspx and USDA Agricultural Projections to 2025, February 2016.

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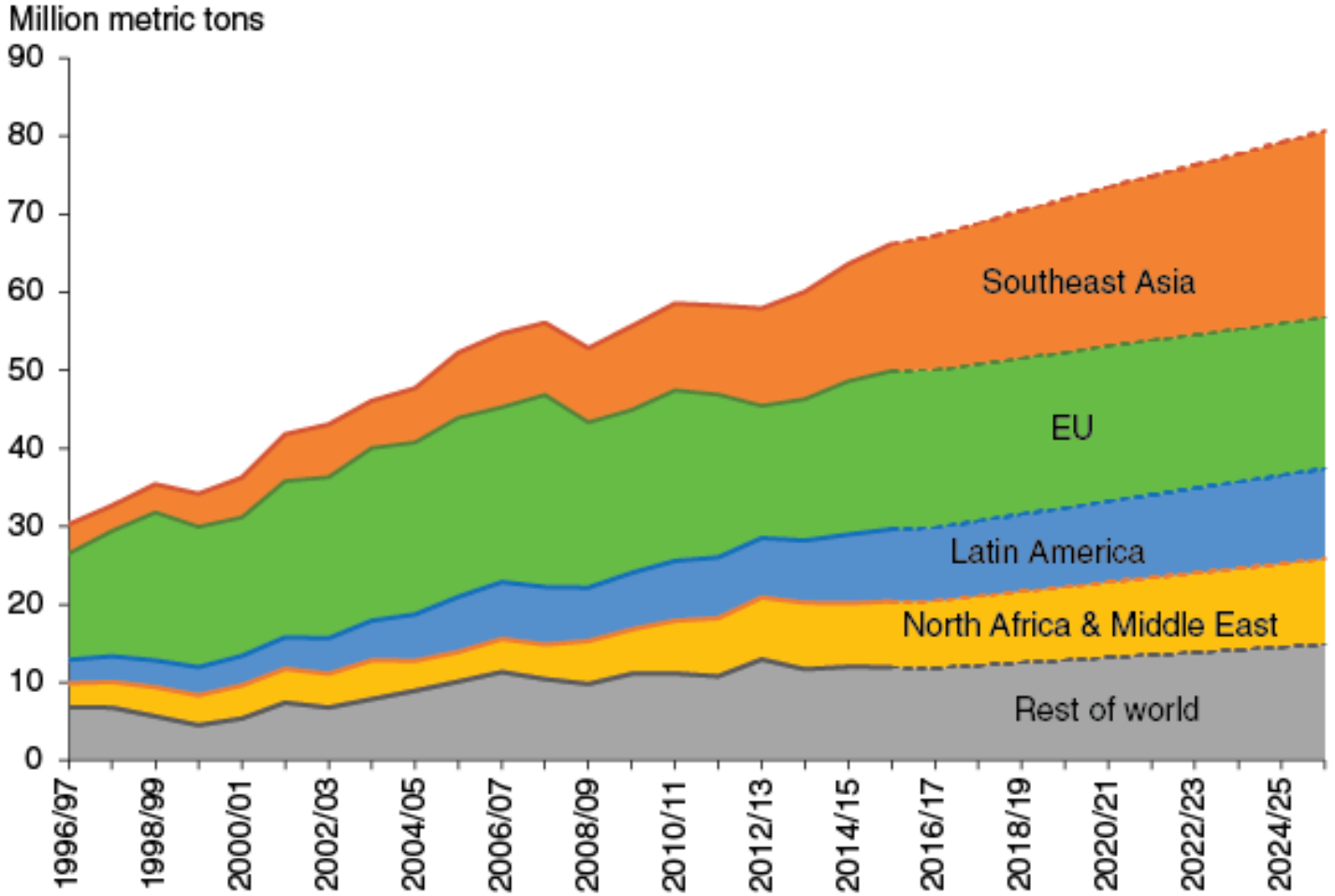
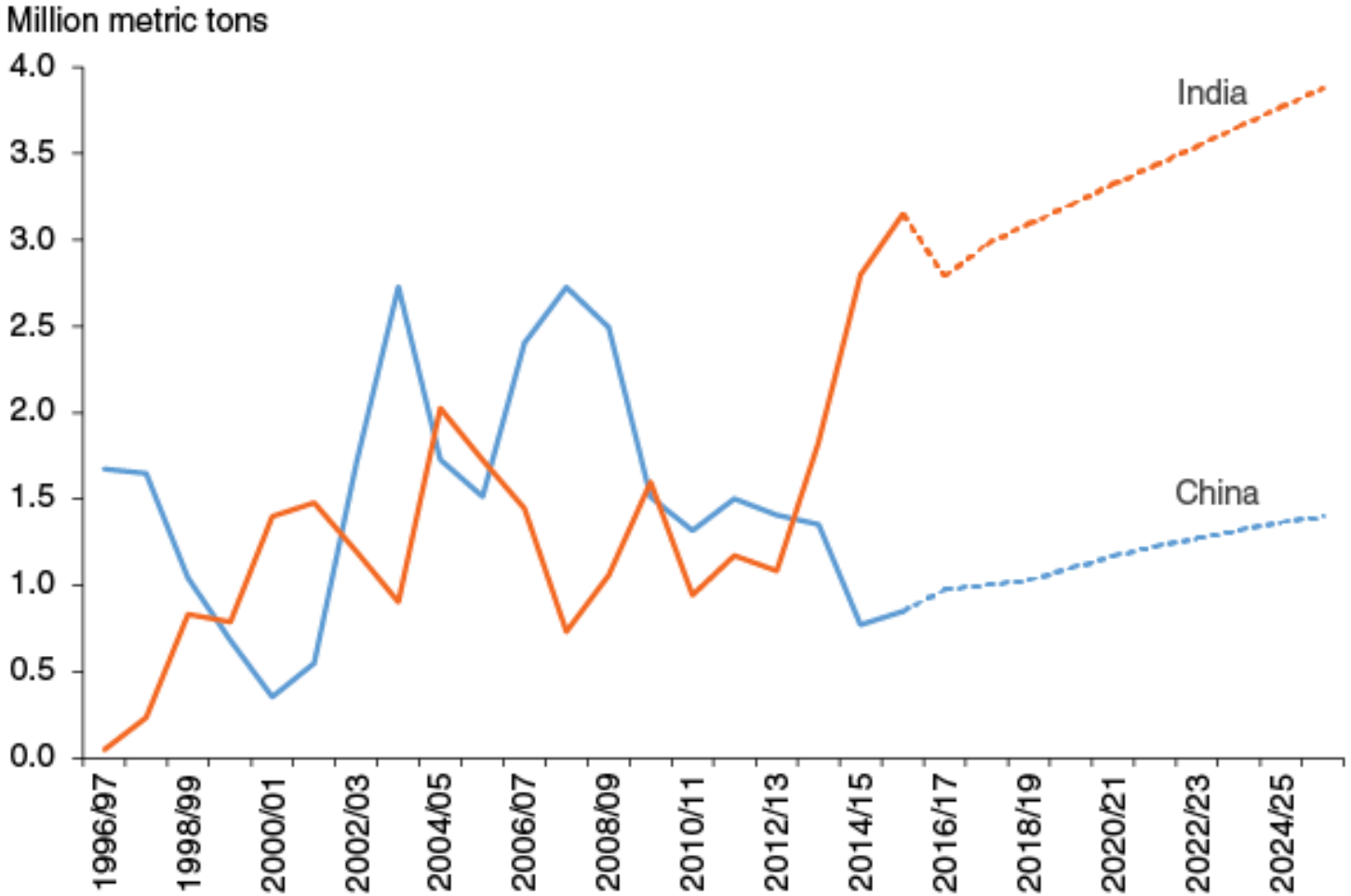
Southeast Asia soybean meal imports expected to surpass those of the EU by 2020/21



Note: Dashed lines represent the projection period. EU = European Union.
Source: USDA, Economic Research Service using data from USDA Agricultural Projections to 2025, February 2016.

India surpassed China as the world's largest soybean oil importer in 2013/14



Note: Dashed lines represent projection period.
Source: USDA, Economic Research Service using data from USDA *Agricultural Projections to 2025*, February 2016.

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Global Soybean Meal Production (1,000 Metric Tons)

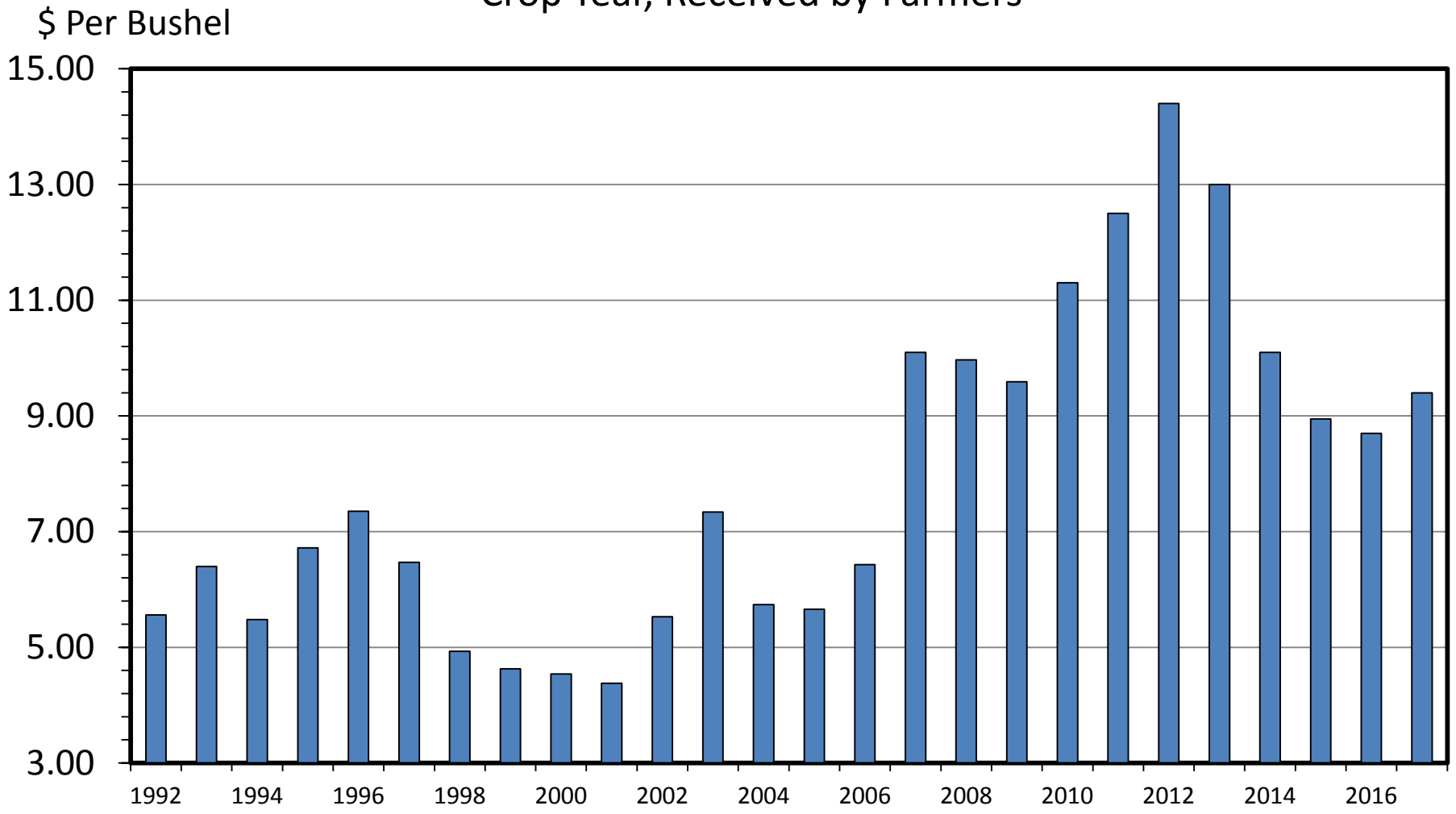
	2015/16	Sep 2016/17	% Change	% of global Production
China	64,782	68,900	6.36	30.35
United States	40,769	41,980	2.97	18.49
Argentina	33,815	34,350	1.58	15.13
Brazil	31,500	31,350	-0.48	13.81
European Union	11,060	10,902	-1.43	4.80
India	4,700	6,080	29.36	2.68
Mexico	3,360	3,385	0.74	1.49
Other	27,872	30,047	7.80	13.24
Total	217,858	226,994	4.19	100.00

Global Soybean Meal Exports (1,000 Metric Tons)

	2015/16	Sep 2016/17	% Change	% of global Exports
Argentina	31,600	32,800	3.80	47.24
Brazil	15,600	15,800	1.28	22.75
United States	10,705	11,158	4.23	16.07
Paraguay	2,980	3,025	1.51	4.36
China	1,850	1,850	0.00	2.66
Other	4,040	4,806	18.96	6.92
Total	66,775	69,439	3.99	100.00

NATIONAL AVERAGE SOYBEAN PRICE

Crop Year, Received by Farmers



Data Source: USDA-ERS, Compiled by LMIC

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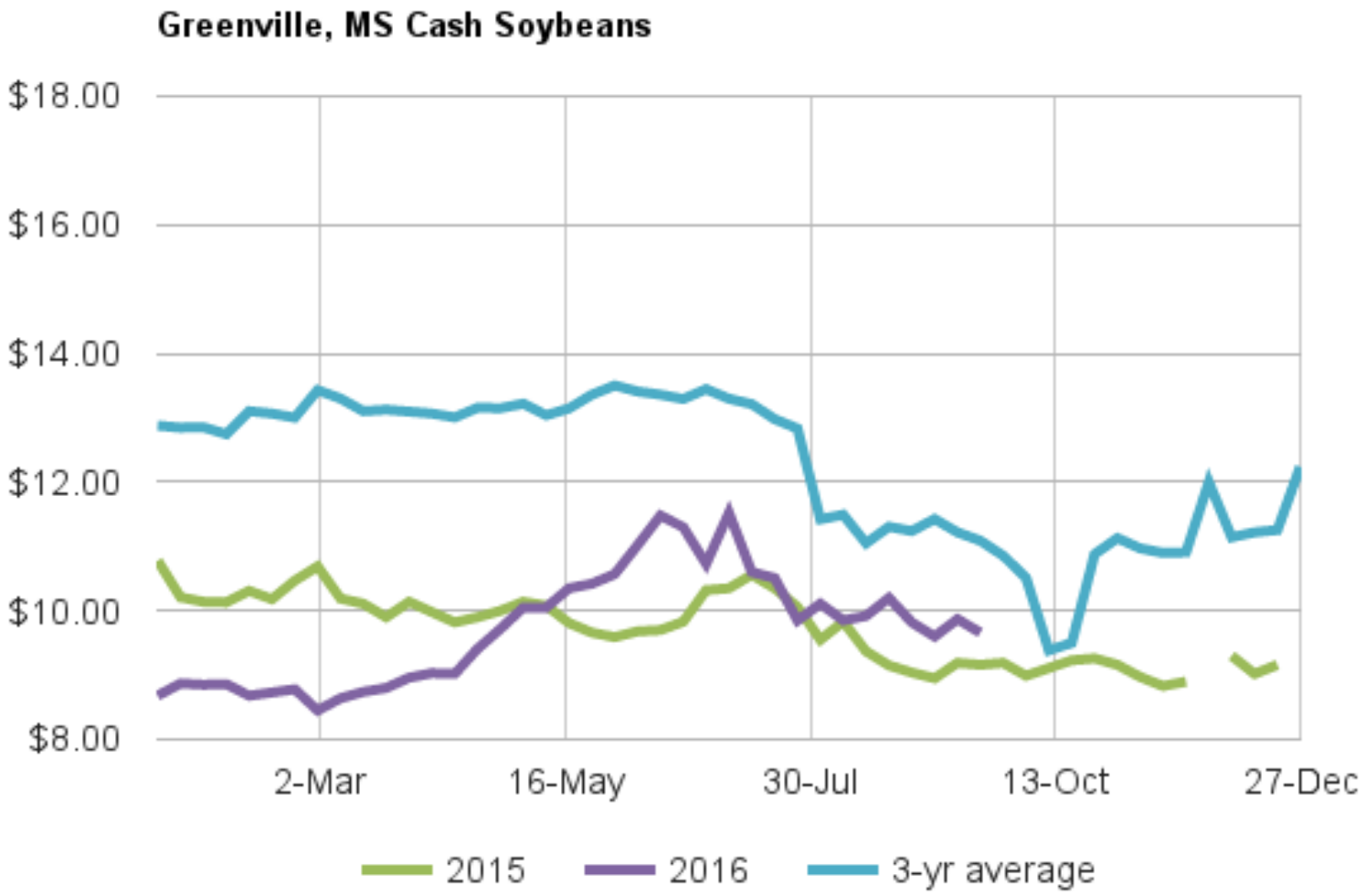
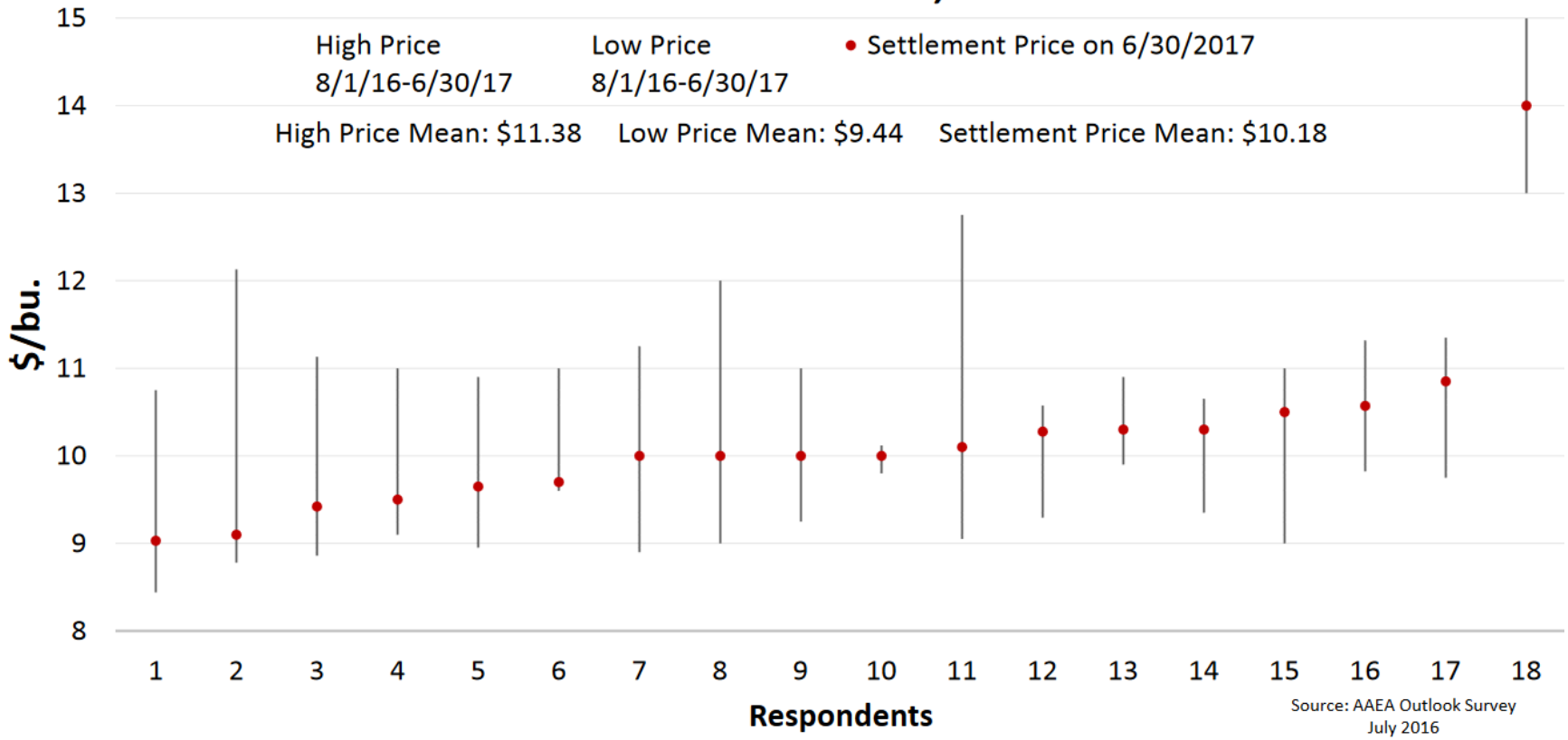
09/12/16


Greenville, MS Cash Soybeans
$18.00
$16.00
$14.00
$12.00
$10.00
$8.00
2-Mar
16-May
30-Jul
13-Oct
27-Dec
2015
2016
3-yr average

Looking Ahead

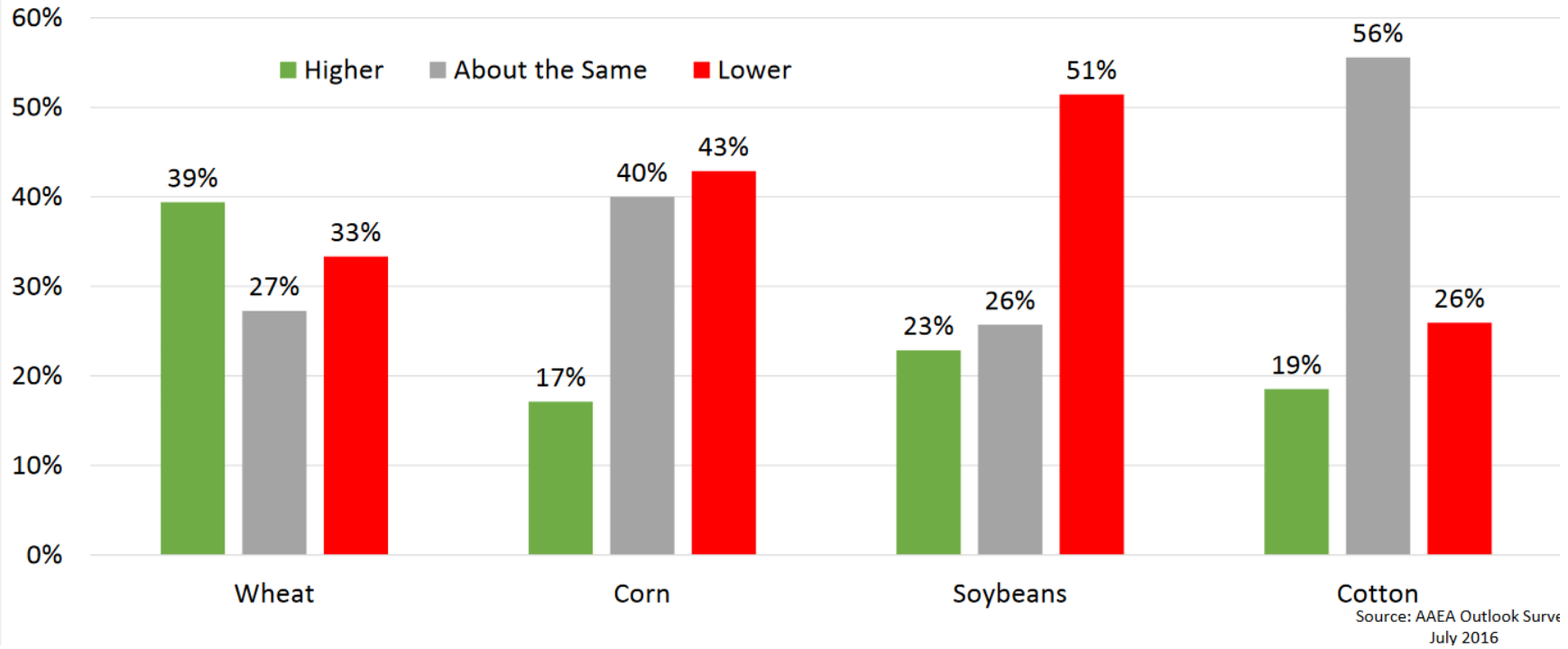
- Brazil and Argentina crops
  - Beginning Planting
- Harvest
  - So far the crop looks very good
- Export Situation
  - This has been the main support so far this year
- Supply vs. Demand
  - Supply outpacing demand

JULY 2017 SOYBEANS, CME



Source: AAEA Outlook Survey
July 2016

Where do you see prices for the crops identified below 12 months from now?



Source: AAEA Outlook Surve
July 2016

Thank You

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