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United States Department of Agriculture



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USDA's  
94th  
Annual

# Agricultural Outlook Forum

## THE ROOTS OF PROSPERITY

February 22-23, 2018 • Crystal Gateway Marriott Hotel, Arlington, Virginia

# Grains and Oilseeds Outlook

Friday, February 23, 2018

[www.usda.gov/oce/forum](http://www.usda.gov/oce/forum)

GRAINS AND OILSEEDS OUTLOOK FOR 2018<sup>1</sup>

Prepared by Members of the  
Wheat, Feed Grains, Rice, and Oilseeds Interagency Commodity Estimates Committees  
U.S. Department of Agriculture

**Introduction**

This paper provides USDA's projections of 2018/19 U.S. supply, demand and prices for wheat, corn, rice, and soybeans and products. Projections presented in this paper include implications of the January 12<sup>th</sup> *Winter Wheat and Canola Seedings* report, which estimated winter wheat area declined less than 1 percent from 2017. The projections assume normal weather conditions for spring planting and summer crop development and will be updated in the May 10<sup>th</sup> *World Agricultural Supply and Demand Estimates (WASDE)* report. The May *WASDE* will incorporate farmers' 2018 planting intentions as indicated in the March 29<sup>st</sup> *Prospective Plantings* report and survey-based forecasts for winter wheat production, as well as global, country-by-country supply and demand projections.

Among the 3 major crops, for U.S. producers corn and soybean prices are similar to a year ago, despite relatively large stocks of both commodities. In contrast, spring wheat prices are higher relative to 2017. While domestic use of corn is expected to increase driven mostly by expansion in the ethanol sector, U.S. corn exports are expected to face strong competition from Argentina, Brazil, and Ukraine. For wheat, continued large global supplies will maintain strong export competition. Soybean carryin stocks are the highest since 2007/08, but expected growth in exports driven mainly by China results in lower forecast 2018/19 ending stocks in both absolute terms and relative to use. Season-average corn prices received by producers are expected to reach \$3.40 per bushel, up 10 cents from the 2017/18 forecast. Soybean prices are expected to decline slightly to \$9.25 per bushel while wheat prices are expected to rise to \$4.70, up 10 cents per bushel from 2017/18. Given this price outlook, combined corn and soybean area is expected to decline modestly from last year's record high, while wheat acres are projected to rise. The total 3-crop planted area of 226.5 million acres, if realized, would be up fractionally from final plantings in 2017.

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<sup>1</sup>This paper incorporates contributions by analysts from the World Agricultural Outlook Board, the Economic Research Service, the Farm Service Agency, and the Foreign Agricultural Service.

## **Planted Acreage Outlook for 2018** (Table 1 & Figures 1-5)

The 2018 outlook for U.S. plantings of corn and soybeans is driven by price prospects similar to a year ago. In contrast, spring wheat price prospects are up from last year while farmers have indicated winter wheat acres will be down fractionally from last year, but with notable increases in states such as Texas and Kansas. The forecast planted area for the 3 crops at 226.5 million acres, plus an assumption for a normal amount of prevented plant area, suggest a modest rise in combined area in 2018. Prevented plant acres for the 3 crops totaled about 2 million acres in 2017, below the recent historical average for the second consecutive year.

Wheat planted area for 2018 is projected up 0.5 million acres to 46.5 million. Winter wheat seeded area in the January 12, 2018, NASS *Winter Wheat and Canola Seedings* report was 32.6 million acres, down fractionally from last year mostly resulting from a drop in Hard Red Winter (HRW), which was estimated down 0.3 million acres to 23.1 million. Soft Red Winter (SRW) area was estimated up 0.2 million acres to 6.0 million. Winter White (WW) seedings were raised fractionally to 3.6 million. Spring wheat (including Durum) plantings are expected to increase 4 percent.

Corn plantings for 2018 are projected at 90.0 million acres, down slightly from last year and virtually unchanged from 2017's intended plantings. Soybean plantings are expected to total 90.0 million acres, fractionally below a year ago but up 0.5 million from last year's intentions. Combined corn and soybean area, at 180.0 million acres, is down slightly from a last year's record high of 180.3 million but 0.5 million above 2017 planting intentions. Forecast increases in wheat and cotton acres, as well as a normal amount of prevented plant acres, are expected to limit expansion in combined corn and soybean area following an increase of 9.6 million acres over the past 2 years.

Futures and new crop cash prices for corn and soybeans in both absolute and relative terms are similar to this time a year ago. Through more than half of February, new crop corn futures averaged just under \$4.00 per bushel. Soybean prices over the same time period have averaged just over \$10.00 per bushel, 2.6 times the corn price and virtually unchanged from a year ago. Forward pricing opportunities for producers portend a similar outlook, with February cash bids for fall 2018 delivery at Illinois elevators<sup>2</sup> averaging about \$3.60 for corn and \$9.65 per bushel for soybeans, compared to \$3.65 and \$9.85, respectively, during all of February a year ago.

Absent any other considerations, current soybean prices relative to corn would be expected to support a continued expansion in soybean acres. However, corn acres are expected to receive some support from lower input prices<sup>3</sup> in 2018, as illustrated in Figure 2. Relative to the price of corn, prices for nitrogen fertilizer have declined modestly. For producers focused on managing costs in a relatively low price environment, this is expected to enhance potential net returns. In addition, the potential for a sharp increase in soybean area is dampened by rotational constraints with the possibility of yield drag and increased disease and pest pressure from planting soybeans-on-soybeans. Expected increases in planted acres for other crops will also likely limit soybean area expansion.

Total 2018 rice planted acreage is projected at 2.9 million acres, up 17 percent from the prior year. Long grain plantings are expected to increase 20 percent to 2.2 million acres. Improved expected relative returns for long grain rice are behind the increase. Medium and short grain plantings in 2018 are projected to increase 8 percent to 700,000 acres.

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<sup>2</sup>As reported in *Illinois Grain Prices in Country Elevators* (GX\_GR113)

<sup>3</sup>As reported in *Illinois Production Cost Report* (GX\_GR210)

## **Wheat Supply, Demand, and Price Outlook for 2018/19** (Table 2)

**Wheat Supplies:** Wheat production for the 2018/19 marketing year (MY) is forecast increasing by 98 million bushels and nearly 6 percent, relative to 2017/18. This is largely based on expanded all-wheat planted area. At 46.5 million, area seeded to wheat is up almost 500,000 acres from the previous year despite a slight decline in forecast winter wheat seedings. At 32.6 million acres, 2018 winter wheat seedings are projected to be the lowest in 109 years and incorporate expectations of a 2 percent year-to-year decline in hard red winter plantings.

The all-wheat yield for 2018/19 is projected slightly up from the previous year to 47.4 bushels per acre and is based on a 20-year trend. The all-wheat harvested-to-planted ratio is forecast at 83.4 percent indicating expectations for 38.8 million harvested acres. While up from the 2017/18 ratio, the 2018/19 ratio is slightly below the long-term average and reflective of the potential for increased abandonment in the drought-affected winter wheat belt in the Southern Plains. At present, an estimated 42 percent of the 2018/19 winter wheat crop is located in an area experiencing drought.

Higher production is more than offset by lower carryin, down 172 million bushels from 2017/18, leaving supplies 93 million bushels lower in this marketing year. The 3 percent decrease in total wheat supply, projected at 2,983 million bushels, compares to total supply of 3,076 million forecast for the 2017/18 marketing year and the 5-year average of near 3,040 million bushels.

**Wheat Domestic Use:** Projected domestic use for 2018/19 is marginally higher, up 10 million bushels from 2017/18 to 1,127 million based on increased feed and residual usage. Food and seed use is forecast to remain level with the current 2017/18 estimate based on food use of 955 million bushels and seed use of 62 million bushels.

**Wheat Exports:** U.S. 2018/19 wheat exports are projected down 25 million bushels from 2017/18 to 925 million. Lower U.S. supplies and continued strong international competition will challenge U.S. wheat exports. The European Union is expected to have a larger crop, while Argentina is anticipated to continue to expand wheat area. Both Australia and Canada are expected to have ample exportable supplies with larger crops as they rebound from reduced 2017/18 yields. Though the Russian crop is expected to be down from the 2017/18 record, exportable supplies will still be abundant due to massive carryin stocks. Global 2018/19 wheat trade is anticipated to reach a record-high while global consumption is projected to continue to grow particularly in the net importing countries of Africa and Asia. While the United States is expected to retain its core markets, expansion into these growing regions will be limited in light of abundant competitor supplies.

**Wheat Ending Stocks and Farm Prices:** U.S. wheat ending stocks for 2018/19 are projected to decline by approximately 8 percent and 78 million bushels from 2017/18. At 931 million bushels, ending stocks for 2018/19 are the lowest since 2014/15 but still above the 5-year average of 902 million bushels. The stocks-to-use ratio, at 45.4 percent, is down from the projected 2017/18 ratio of 48.8 percent, but remains above the 5-year average of 42.7. The 2018/19 season-average farm price is projected at \$4.70 per bushel and is up ten cents from the midpoint of the forecast 2017/18 price. Large carryin stocks coupled with continued strong export competition in global markets is expected to temper prospects for significantly higher prices in 2018/19.

## **Corn Supply, Demand, and Price Outlook for 2018/19** (Table 3)

**Corn Supplies:** Corn production in 2018 is projected at 14,390 million bushels, 1 percent below a year ago on fractionally lower planted area and a return to trend yield. Corn supplies for 2018/19 decline from the record high in 2017/18, but remain relatively large. Imports are expected to be unchanged from a year ago reflecting expectations of continued demand for imported organic corn and trade destined for southeastern feed markets. The national average corn yield is projected at 174.0 bushels per acre, below last year's record yield of 176.6 bushels. The yield projection is based on a weather-adjusted trend assuming normal growing season weather, estimated using the 1988-2017 time period, and includes a downward stochastic adjustment to account for the asymmetric response of yield to July precipitation.<sup>4</sup>

**Corn Use:** Total corn use for 2018/19 at 14,520 million bushels is down from 2017/18 as a projected decline in exports more than offsets growth in domestic use.

**Corn Feed and Residual Use:** Corn feed and residual use for 2018/19 is projected at 5,475 million bushels, down 75 million bushels from 2017/18. The decline reflects smaller residual disappearance with a reduced crop, an increase in the amount of corn used to produce ethanol, and slightly higher expected prices that are partially offset by expected growth in grain consuming animal units.

**Corn Food, Seed, and Industrial Use:** Food, seed, and industrial (FSI) use of corn in 2018/19 is projected at a record 7,145 million bushels, 150 million bushels higher than 2017/18. Non-ethanol FSI categories are up 25 million bushels in 2018/19 largely reflecting higher corn use for glucose and dextrose. Corn use for beverage and industrial alcohols, as well as use for food, cereals, and other products continue an upward trend mostly based on population growth.

**Corn Used in Ethanol Production:** Corn used for ethanol production is projected at a record 5,650 million bushels for 2018/19, 125 million bushels higher than 2017/18. If realized, this would represent nearly 40 percent of total corn use, a marginal increase from the previous year but below the average of 2011/12 and 2012/13. The Energy Information Administration forecast for gasoline consumption during 2018/19, on a September-August basis, is up about 1 percent from the prior year. Continued low gasoline prices and economic growth support a slight but steady increase in vehicle a miles driven per day and continued consumer purchases of heavier, relatively less fuel efficient vehicles. At the same time, continued growth is expected for U.S. ethanol exports.

**Corn Exports:** Corn exports for 2018/19 are projected at 1,900 million bushels, down 150 million from the 2017/18 forecast. Competition from Argentina, Brazil, and Ukraine is expected to limit U.S. export prospects. Argentina is forecast to increase its exports despite the impact of below trend yields in 2017/18 as corn area has expanded substantially in the last 2 years. Planting is underway for Brazil's second-crop corn and this crop would be expected to compete with U.S. exports starting in the summer of 2018. At the same time, with normal weather conditions Ukraine is expected to continue export expansion to countries in Asia, dampening prospects for the United States in the region. The U.S. market share of global trade is expected to remain in a range of 30 to 35 percent.

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<sup>4</sup>For a more detailed explanation see Westcott and Jewison, *Weather Effects on Expected Corn and Soybean Yields*, USDA, Economic Research Service, July 2013, <http://usda.mannlib.cornell.edu/usda/ers/FDS/2010s/2013/FDS-07-26-2013.pdf>

**Corn Ending Stocks and Farm Prices:** U.S. corn ending stocks for 2018/19 are projected at 2,272 million bushels, down 3 percent from 2017/18. The 2018/19 stocks-to-use ratio of 15.6 percent is down from the 16.1 percent forecast for 2017/18, supporting a 10 cent per bushel increase from a year ago in the expected season-average farm price to \$3.40 per bushel.

**Rice Supply, Demand, and Price Outlook for 2018/19** (Tables 4 & 5)

**Rice Supplies:** The 2018/19 outlook is for much larger total U.S. supplies as a substantial increase in production more than offset smaller carryin stocks and a slight decrease in imports. Total 2018 rice planted acreage is projected to increase 17 percent from last year to 2.88 million acres. Long grain plantings are expected to increase 20 percent to 2.18 million acres due to tight ending stocks in 2017/18 and higher expected returns for rice at planting compared with alternative crops, primarily soybeans. Medium- and short-grain plantings in 2018 are expected to increase 8 percent from the prior year to 700,000 acres, with further expansion constrained by available California water supplies. California typically accounts for about 70 percent of U.S. medium- and short-grain production.

Assuming a normal harvested-to-planted area relationship, total harvested rice acreage is projected at 2.85 million acres, with 2.16 million acres of long-grain and 0.69 million acres of medium- and short-grain. For all rice, average field yields are forecast to increase 2 percent from 2017 to 7,631 pounds per acre, assuming normal weather and planting dates. This would be the second highest yield on record. Long-grain rice yields are forecast to return to trend, resulting in a yield of 7,449 pounds per acre, up 2 percent from 2017. The medium- and short-grain rice yield is forecast to increase 2 percent from 2017 to 8,200 pounds per acre. Total 2018 rice production is projected to increase by 22 percent to 217.8 million cwt, as both area and yield are projected higher. Long grain rice accounts for more than four-fifths of the production increase.

Total supplies of all rice in 2018/19 are projected to increase by 9 percent to 271.7 million cwt, as a much larger crop more than offsets a smaller carryin and slightly lower imports. Supplies of both classes of rice are projected to be larger in 2018/19. Long-grain supplies are projected to increase by 10 percent to 198.8 million cwt due to a much larger crop. Medium- and short-grain supplies are projected at 69.4 million cwt, 6 percent larger than in 2017/18, also due to a larger crop.

**Rice Domestic Use:** All rice total domestic and residual use for 2018/19 is projected to increase 5 percent from 2017/18 to 126.0 million cwt. Long-grain domestic and residual use is projected to increase 5 percent to 98.0 million cwt, mostly due to greater post-harvest and marketing losses associated with a larger crop. Medium- and short-grain domestic and residual use is projected to increase almost 4 percent to 28.0 million cwt, also mostly due to a larger crop in 2018/19.

**Rice Exports:** All rice exports for 2018/19 are projected at 106.0 million cwt, up 6 percent from a year earlier. The increase is primarily due to greater exportable supplies for all classes. Long-grain exports are projected at 75.0 million cwt, up 6 percent from 2017/18. The Western Hemisphere is again expected to account for the bulk of U.S. long-grain exports, with rising shipments expected to Haiti. U.S. medium- and short-grain rice exports are projected at 31.0 million cwt, up 7 percent, with Northeast Asia again expected to account for the majority of these exports. With lower expected prices, exports are expected to rebound to the Middle East and North Africa region.

**Rice Ending Stocks and Prices:** Total 2018/19 all rice ending stocks are projected at 39.7 million cwt, up 36 percent from the 2017/18 level. Stocks of both classes of rice are projected to be higher in 2018/19. Long-grain ending stocks are forecast to increase by 57 percent to 25.8 million cwt. The season-average farm price (SAFP) for long-grain rice is projected at \$11.20 per cwt, down 50 cents from the 2017/18 midpoint. Medium- and short-grain ending stocks are forecast to increase 12 percent to 10.4 million cwt. The SAFP for all medium- and short-grain rice is projected at \$14.20 per cwt, down 80 cents from the 2017/18 midpoint. The 2018/19 all rice price is projected at \$11.90 per cwt, down 60 cents from the midpoint of 2017/18.

**Soybean Supply, Demand, and Price Outlook for 2018/19** (Tables 6, 7 & 8)

**Soybean Supplies:** Soybean supplies for 2018/19 are projected at a record 4,875 million bushels, up 3 percent from 2017/18 with higher beginning stocks more than offsetting lower production. Soybean production is projected at 4,320 million bushels, 2 percent below last year on fractionally lower planted area and trend yields. The national average soybean yield of 48.5 bushels per acre is 0.6 bushels below last year and 3.5 bushels below the 2016 record. The yield forecast is based on a weather-adjusted trend assuming normal growing season weather, estimated using the 1988-2017 time period, and includes a downward stochastic adjustment to account for the asymmetric response of yield to precipitation.<sup>5</sup>

**Soybean Domestic Use:** Soybean domestic use is projected up 1 percent in 2018/19 to 2,115 million bushels. Crush is seen increasing by 30 million bushels to 1,980 million with an expansion in domestic use and exports of soybean meal. Soybean crush margins are forecast to be supported in 2018/19 by a slight decline in soybean prices while prices for soybean meal and soybean oil remain steady. Domestic use of soybean meal is projected to rise by 1.2 percent in 2018/19 to 34.7 million short tons due to gains for pork and poultry production. Soybean meal prices are forecast at \$320 per short ton.

Domestic use of soybean oil is projected up 1.2 percent for 2018/19 to 21.35 billion pounds based on gains for edible and biodiesel consumption. A marginal increase for U.S. biodiesel production is forecast to raise that industry's consumption of soybean oil to 7.6 billion pounds, compared to 7.5 billion for 2017/18. Edible consumption of soybean oil is projected to increase 150 million pounds to 13.75 billion. Increasing supplies of alternative vegetable oils could temper the growth in domestic soybean oil use.

Soybean oil ending stocks for 2018/19 are projected up nearly 3 percent to 1.576 billion pounds as gains in production slightly exceed the increase in use. Soybean oil prices are forecast at 32.5 cents per pound, unchanged from the 2017/18.

**Soybean Exports:** U.S. 2018/19 soybean exports are projected at 2,300 million bushels, up 200 million from the 2017/18 forecast. Rising global demand, along with a decline in the 2018 South American harvest, is expected to ease competitive pressures that contributed to this year's lower projected exports. The U.S. global export share is forecast to rise slightly, although a rebound for 2019 production in South America will support additional exports from the region. Global trade will continue to be driven by China, which currently accounts for nearly two-thirds of world trade. Although the year-to-year increase for China's soybean imports is expected to remain below the 5-year average on a percentage basis, imports are expected to exceed 100 million tons for the first time. Continued demand growth in the rest of Asia and in the Middle East and North Africa region will provide additional support for a rise

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<sup>5</sup>See Westcott and Jewison, *Weather Effects on Expected Corn and Soybean Yields*, USDA, Economic Research Service, July 2013.



in global imports.

Global soybean meal trade is also forecast to expand in 2018/19. Limited export growth from Argentina, other South America, and India is forecast to provide export opportunities for U.S. processors. As a result, U.S. soybean meal exports in 2018/19 are projected to increase to 12.4 million short tons.

U.S. soybean oil exports are projected to decline modestly in 2018/19 to 1.8 billion pounds as supply gains are mostly offset by higher domestic use. Strong competition from other oils will also likely curtail global demand for U.S. soybean oil exports.

**Soybean Ending Stocks and Farm Prices:** U.S. soybean ending stocks for 2018/19 are projected at 460 million bushels, down 70 million from 2017/18. With a smaller harvest and a 5-percent increase in total soybean disappearance, the ending stocks-to-use ratio would be 10.4 percent, down from 12.7 percent in 2017/18. With record soybean supplies and relatively high ending stocks, the soybean season-average farm price is projected at \$9.25 per bushel, slightly below 2017/18.

**Table 1. Wheat, Corn, and Soybean Planted Acreage, 2011-2018**

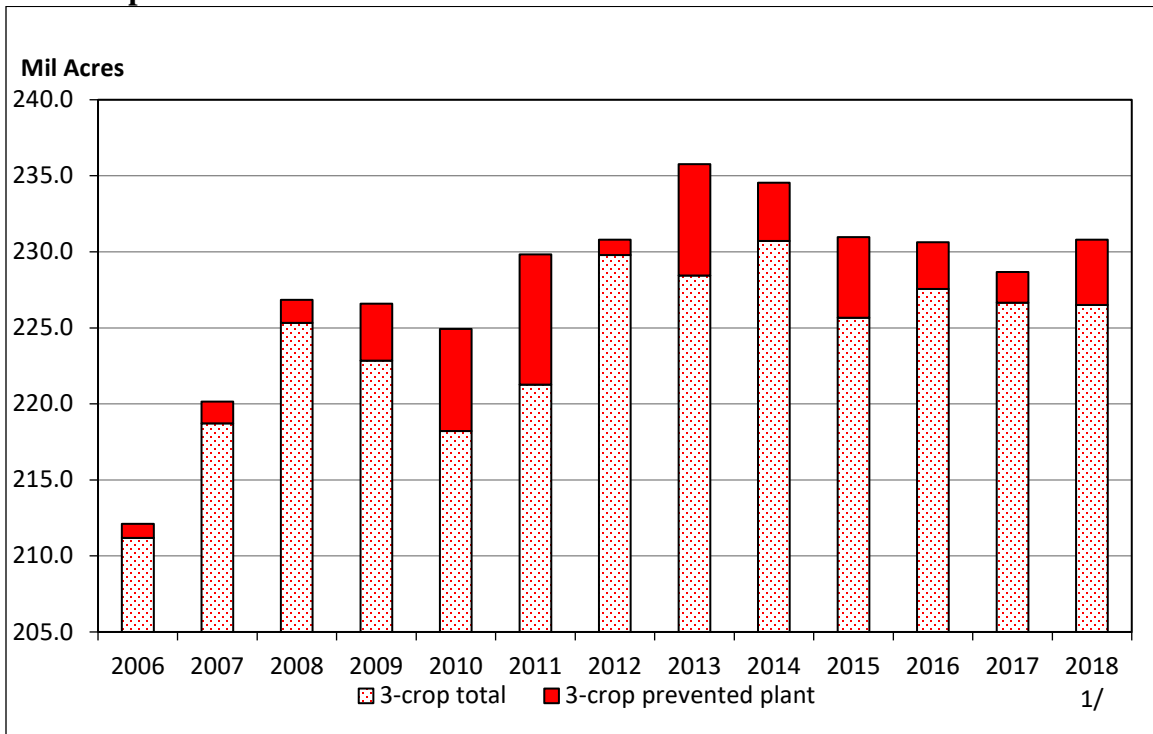
	2011	2012	2013	2014	2015	2016	2017	2018 1/
	- Million Acres -							
Wheat	54.3	55.3	56.2	56.8	55.0	50.1	46.0	46.5
Corn	91.9	97.3	95.4	90.6	88.0	94.0	90.2	90.0
Soybeans	75.0	77.2	76.8	83.3	82.7	83.4	90.1	90.0
Total	221.3	229.8	228.4	230.7	225.7	227.6	226.3	226.5

1/ Projection

Source: National Agricultural Statistics Service data 2011-2017.

Note: Totals may not add due to rounding.

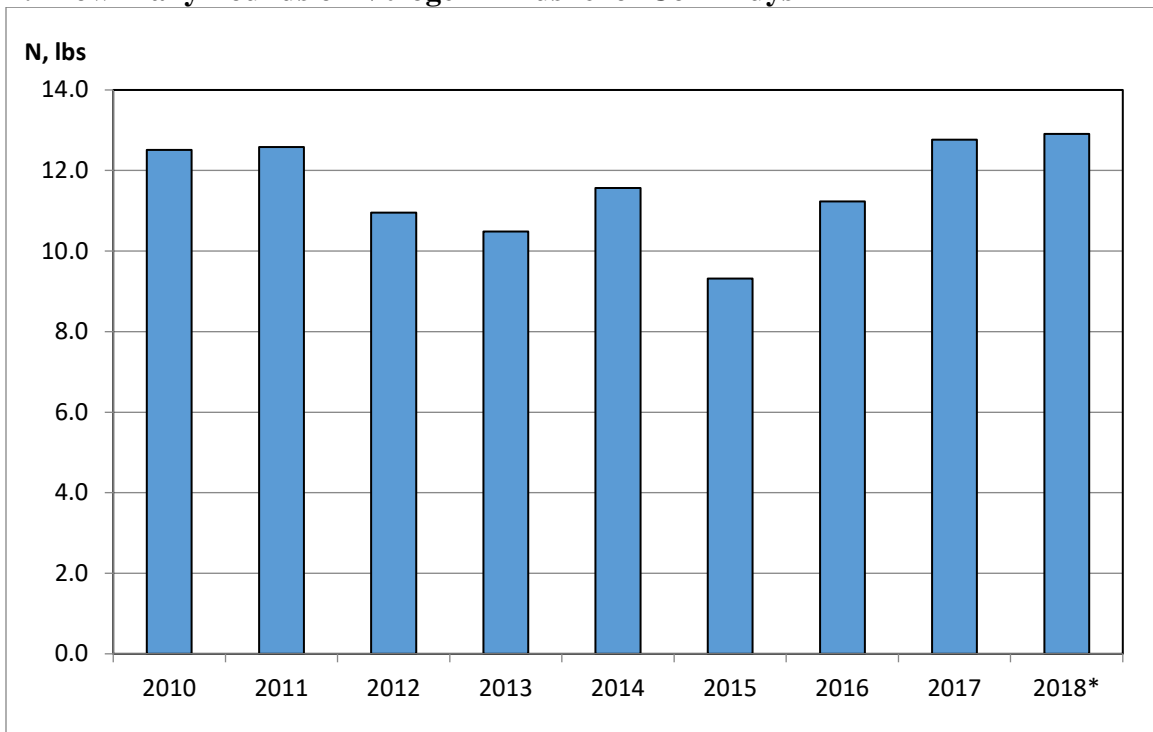
**Figure 1. 3-Crop Planted Area & Prevented Plant Acres**



1/ Projection

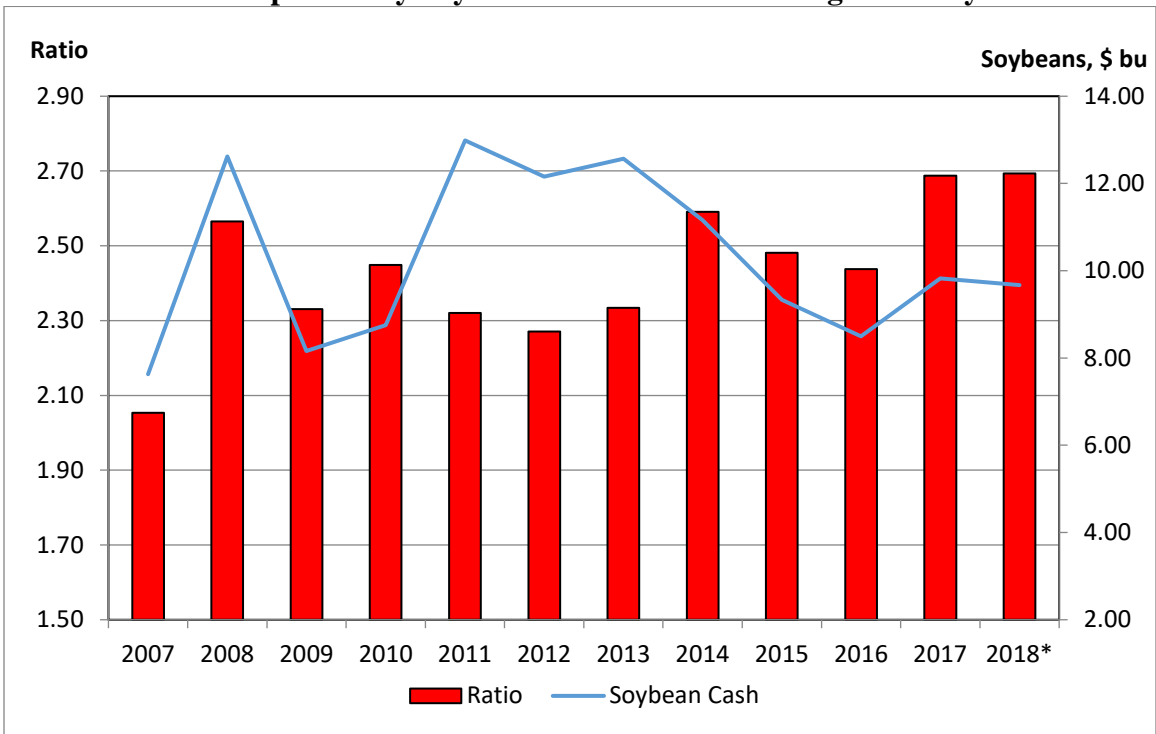
Source: National Agricultural Statistics Service and Farm Service Agency data 2006-2017.

**Figure 2. How Many Pounds of Nitrogen A Bushel of Corn Buys**



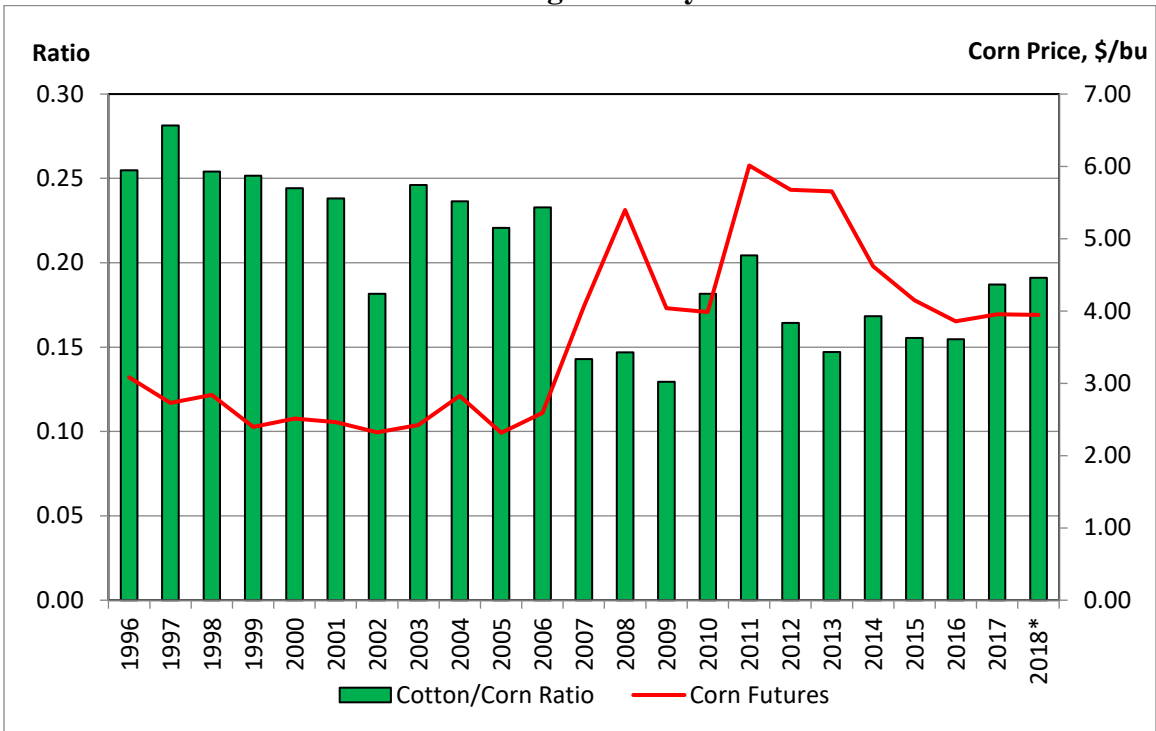
Corn price is average of December futures during February relative to average spot anhydrous ammonia (@82 percent nitrogen) during February as reported by USDA/AMS in GX\_GR210.

**Figure 3. Illinois New Crop Delivery Soybean-to-Corn Ratio During February**



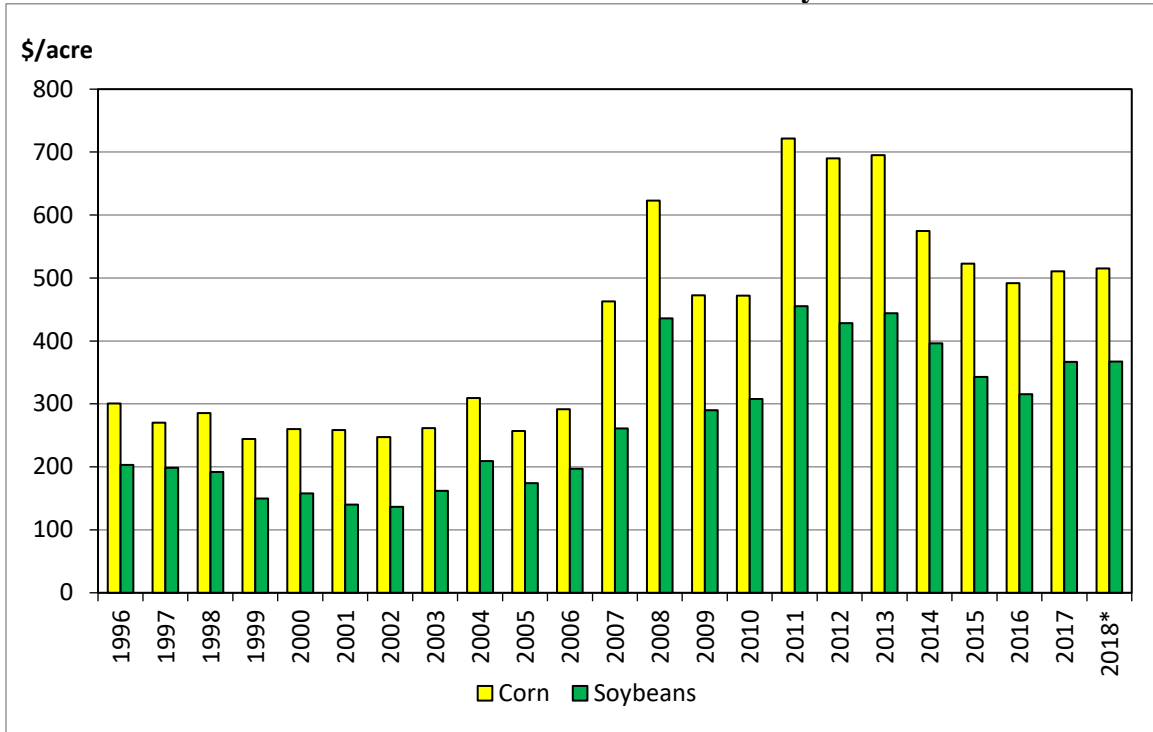
Average of high and low values for IL as reported by AMS in GX\_GR113. \*Value for 2018 is average of month to date.

**Figure 4. Cotton-to-Corn Futures Ratio During February**



New crop is the December contract for cotton and corn. \*Value for 2018 is average of month to date.

**Figure 5. Theoretical Revenue Protection Level For Corn and Soybeans**



Assumes 75% coverage level. Prices are RMA projected prices (average of new crop futures during February), multiplied by trend yield for respective year. 2018 starting yields are 174.0 and 48.5 bushels per acre, with trend coefficients of 2 and 0.5 bushels per acre, respectively, for corn and soybeans. For example, theoretical revenue for corn in 2016 would be projected price of \$3.86 per bushel multiplied by 170 bushels per acre (174-(2 years \*2 bushels)) multiplied by 0.75. \*Price for 2018 is average of month to date.

**Table 2. Wheat Supply, Demand, and Price, 2015/16-2018/19**

	2015/16	2016/17	2017/18 1/	2018/19 2/
Area planted (mil. ac.)	55.0	50.1	46.0	46.5
Area harvested	47.3	43.9	37.6	38.8
Yield (bu./ac.)	43.6	52.7	46.3	47.4
Production (mil. bu.)	2,062	2,309	1,741	1,839
Beginning stocks	752	976	1,181	1,009
Imports	113	118	155	135
Supply	2,927	3,402	3,076	2,983
Feed & residual	149	156	100	110
Food & seed	1,024	1,010	1,017	1,017
Total domestic use	1,174	1,167	1,117	1,127
Exports	778	1,055	950	925
Total use	1,951	2,222	2,067	2,052
Ending stocks	976	1,181	1,009	931
Stocks/use (percent)	50.0	53.2	48.8	45.4
Season-avg. farm price (\$/bu.)	4.89	3.89	4.60	4.70

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 8, 2018. The season-average price is the midpoint of the projected range from the same report.

2/ Projections based on analysis by USDA's Wheat Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

**Table 3. Corn Supply, Demand, and Price, 2015/16-2018/19**

	2015/16	2016/17	2017/18 1/	2018/19 2/
Area planted (mil. ac.)	88.0	94.0	90.2	90.0
Area harvested	80.8	86.7	82.7	82.7
Yield (bu./ac.)	168.4	174.6	176.6	174.0
Production (mil. bu.)	13,602	15,148	14,604	14,390
Beginning stocks	1,731	1,737	2,293	2,352
Imports	68	57	50	50
Supply	15,401	16,942	16,947	16,792
Feed & residual	5,114	5,467	5,550	5,475
Ethanol 3/	5,224	5,439	5,525	5,650
Food, seed & other industrial	1,424	1,450	1,470	1,495
Total food, seed & industrial	6,648	6,889	6,995	7,145
Total domestic use	11,763	12,356	12,545	12,620
Exports	1,901	2,293	2,050	1,900
Total use	13,664	14,649	14,595	14,520
Ending stocks	1,737	2,293	2,352	2,272
Stocks/use (percent)	12.7	15.7	16.1	15.6
Season-avg. farm price (\$/bu.)	3.61	3.36	3.30	3.40

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 8, 2018. The season-average price is the midpoint of the projected range from the same report.

2/ Projections based on analysis by USDA's Feed Grains Interagency Commodity Estimates Committee.

3/ Corn used to produce ethanol and by-products including, distillers' grains, corn gluten feed, corn gluten meal, and corn oil.

Note: Totals may not add due to rounding.

**Table 4. Rice Supply, Demand, and Price, 2015/16-2018/19**

All Rice	2015/16	2016/17	2017/181/	2018/19 2/
Area planted (mil. ac.)	2.63	3.15	2.46	2.88
Area harvested	2.59	3.10	2.37	2.85
Yield (pounds/ac.)	7,472	7,237	7,507	7,631
Production (mil. cwt)	193.1	224.1	178.2	217.8
Beginning stocks	48.5	46.5	46.0	29.2
Imports	24.1	23.5	24.9	24.7
Supply	265.8	294.1	249.2	271.7
Total domestic & residual use	112.4	131.4	120.0	126.0
Exports	107.0	116.7	100.0	106.0
Total use	219.3	248.0	220.0	232.0
Ending stocks	46.5	46.0	29.2	39.7
Stocks/use (percent)	21.2	18.5	13.3	17.1
Season avg. farm price (\$/cwt.)	12.20	10.40	12.50	11.90

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 8, 2018. The season-average farm price is the midpoint of the projected price range from the same report. 2/ Projections based on the analysis by USDA's Rice Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

**Table 5. Rice-by Class Supply, Demand, and Price, 2015/16-2018/19**

Rice-by-class	2015/16	2016/17	2017/18 1/	2018/19 2/
<b><u>Long-grain</u></b>				
Area planted (mil. ac.)	1.88	2.44	1.81	2.18
Area harvested	1.85	2.40	1.75	2.16
Yield (pounds/ac)	7,219	6,927	7,314	7,449
Production (mil. cwt)	133.4	166.5	127.9	160.9
Beginning stocks	26.5	22.7	31.0	16.4
Imports	20.9	20.3	21.5	21.5
Supply	180.7	209.4	180.4	198.8
Total domestic & residual use	82.1	99.7	93.0	98.0
Exports	75.9	78.7	71.0	75.0
Total use	158.0	178.4	164.0	173.0
Ending stocks	22.7	31.0	16.4	25.8
Stocks/use (percent)	14.4	17.4	10.0	14.9
Season avg. farm price (\$/cwt.)	11.20	9.61	11.70	11.20
<b><u>Medium- and short-grain</u></b>				
Area planted (mil. ac.)	0.75	0.71	0.65	0.70
Area harvested	0.74	0.69	0.63	0.69
Yield (pounds/ac)	8,107	8,311	8,048	8,200
Production (mil. cwt)	59.7	57.7	50.4	56.9
Beginning stocks	20.2	20.9	11.5	9.3
Imports	3.3	3.2	3.4	3.2
Supply	82.2	81.1	65.3	69.4
Total domestic & residual use	30.3	31.7	27.0	28.0
Exports	31.0	37.9	29.0	31.0
Total use	61.3	69.6	56.0	59.0
Ending stocks	20.9	11.5	9.3	10.4
Stocks/use (percent)	34.1	16.5	16.6	17.6
Season avg. farm price (\$/cwt)	15.30	13.10	15.00	14.20
California	18.10	14.10	16.00	15.50
Other States	11.20	10.10	11.90	11.50

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 8, 2018. The season-average farm price is the midpoint of the projected price range from the same report. 2/Projections based on analysis by USDA's Rice Interagency Commodity Estimates Committee. Note: Totals may not add due to rounding.



**Table 6. Soybean Supply, Demand, and Price, 2015/16-2018/19**

	2015/16	2016/17	2017/18 /1	2018/19 /2
Area planted (mil. ac.)	82.7	83.4	90.1	90.0
Area harvested	81.7	82.7	89.5	89.1
Yield (bu./ac.)	48.0	52.0	49.1	48.5
Production (mil. bu.)	3,926	4,296	4,392	4,320
Beginning stocks	191	197	302	530
Imports	24	22	25	25
Supply	4,140	4,515	4,718	4,875
Crush	1,886	1,899	1,950	1,980
Seed and Residual	115	141	139	135
Total domestic use	2,002	2,040	2,088	2,115
Exports	1,942	2,174	2,100	2,300
Total use	3,944	4,213	4,188	4,415
Ending stocks	197	302	530	460
Stocks/use (percent)	5.0	7.2	12.7	10.4
Season-avg. farm price (\$/bu.)	8.95	9.47	9.30	9.25

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, crush, exports, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates* report, February 8, 2018. The season-average price is the midpoint of the projected range from the same report. 2/ Projections based on analysis by the USDA's Oilseeds Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

**Table 7. Soybean Meal Supply, Demand, and Price, 2015/16-2018/19**

	2015/16	2016/17	2017/18 /1	2018/19 /2
Production (thou. short tons)	44,672	44,733	46,099	46,800
Beginning stocks	260	264	401	300
Imports	403	349	300	300
Supply	45,336	45,347	46,800	47,400
Domestic Use	33,118	33,345	34,300	34,700
Exports	11,954	11,601	12,200	12,400
Total use	45,072	44,946	46,500	47,100
Ending stocks	264	401	300	300
Avg. price (\$/short ton) 3/	324.56	316.88	320.00	320.00

1/ Beginning stocks, production, imports, use, ending stocks, and average price are projections from the *World Agricultural Supply and Demand Estimates*, February 8, 2018. Price is the midpoint of the projected range from the same report.

2/ Projections based on analysis by the USDA's Oilseeds Interagency Commodity Estimates Committee.

3/ The average price is for 48-percent protein meal at Decatur, Illinois.

Note: Totals may not add due to rounding.

**Table 8. Soybean Oil Supply, Demand, and Price, 2015/16-2018/19**

	2015/16	2016/17	2017/18 /1	2018/19 /2
Production (mil. lbs.)	21,950	22,099	22,525	22,890
Beginning stocks	1,855	1,687	1,711	1,536
Imports	287	319	300	300
Supply	24,092	24,104	24,536	24,726
Domestic Use	20,162	19,837	21,100	21,350
Biodiesel 3/	5,670	6,200	7,500	7,600
Food, Feed, Other Industrial	14,492	13,637	13,600	13,750
Exports	2,243	2,556	1,900	1,800
Total use	22,405	22,393	23,000	23,150
Ending stocks	1,687	1,711	1,536	1,576
Avg. price (cents/lb.) 4/	29.9	32.5	32.5	32.5

1/ Beginning stocks, production, imports, use, ending stocks, and average price are projections from the *World Agricultural Supply and Demand Estimates*, February 8, 2018. Price is the midpoint of the projected range from the same report.

2/ Projections based on analysis by the USDA's Oilseeds Interagency Commodity Estimates Committee.

3/ Reflects only biodiesel made from methyl ester as reported by the U.S. Energy Information Administration.

4/ The average price is for crude soybean oil at Decatur, Illinois.

Note: Totals may not add due to rounding.