

To: LMIC Members and Cooperators

Link: <https://www.usda.gov/oce/commodity/projections/>

Link to AFBF Comments/Article: <https://www.fb.org/market-intel/usda-predicts-king-soybean-by-2019>

USDA-WAOB put out their early release of their 10-year baseline balance sheet projections, which are used for government budgetary purposes. The full baseline report, including the typical USDA commentary, will be released in February, as usual. **I have attached the full set of USDA baseline balance sheets to this post**, which includes corn, wheat and the soybean complex, but also other feed grains, livestock, dairy, cotton and sugar.

The "starting point" for the baseline balance sheets was the November WASDE report estimates of the 2017/18 marketing year. The 2018/19 and forward balance sheets were built off the expectations from the WASDE report earlier this month, with the potential for some noteworthy revisions to still be seen post-January with the release of the Annual Crop Production, quarterly Grain Stocks, Winter Wheat Seedings reports, etc. Additionally, USDA will be releasing 2018/19 balance sheet ideas in late February at the annual Ag Outlook conference, which are deemed much more reflective of actual USDA thinking on the new crop situation than the baseline projections. Fundamentally, we do not put much value on the baseline projections, but they do get looked at by market participants.

Some crop highlights from the USDA's baseline projections:

-2018 corn acreage 91.0 million acres and 173.5 bushel/acre yield (90.4 million/175.4 bushels this year)

-2018/19 U.S. corn ending stocks 2.607 billion bushels vs 2017/18 stocks currently estimated at 2.487 billion

-2018 soybean acreage 91.0 million acres and 48.4 bushel/acre yield (90.2 million/49.5 bushels this year)

-2018/19 U.S. soybean ending stocks 376 million bushels vs 2017/18 stocks currently estimated at 425 million

-2018 all wheat acreage 45.0 million acres and 38.3 bushel/acre yield (46.0 million/46.3 bushels this year)

-2018/19 U.S. wheat ending stocks 813 million bushels vs 2017/18 stocks currently estimated at 935 million

U.S. Corn Long-term Projections (USDA - November 28, 2017)

Item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Forecast 12-Year Annual Trend
Area (million acres):													
Planted acres	94.0	90.4	91.0	90.0	90.0	89.5	89.5	88.5	88.5	88.0	87.5	87.5	(0.5)
Harvested acres	86.7	83.1	83.7	82.7	82.7	82.2	82.2	81.2	81.2	80.7	80.2	80.2	(0.5)
Yield:													
Bushels per harvested acre	174.6	175.4	173.5	175.5	177.5	179.5	181.5	183.5	185.5	187.5	189.5	191.5	1.7
Supply and use (million bushels):													
Beginning stocks	1,737	2,295	2,487	2,607	2,597	2,637	2,647	2,657	2,617	2,632	2,627	2,607	48.3
Production	15,148	14,578	14,520	14,515	14,680	14,755	14,920	14,900	15,065	15,130	15,200	15,360	55.2
Imports	57	50	50	50	50	50	50	50	50	50	50	50	(0.3)
Total Supply	16,942	16,922	17,057	17,172	17,327	17,442	17,617	17,607	17,732	17,812	17,877	18,017	103.2
Feed & residual	5,463	5,575	5,550	5,600	5,700	5,750	5,900	5,925	6,000	6,075	6,125	6,250	70.3
Food, seed, & industrial	6,891	6,935	7,000	7,025	7,015	7,020	7,010	6,990	7,000	6,985	6,970	6,955	2.5
Ethanol and by-products	5,438	5,475	5,525	5,550	5,525	5,525	5,500	5,475	5,475	5,450	5,425	5,400	(6.8)
Other Non-Ethanol Food, Seed, Industrial Use	1,453	1,460	1,475	1,475	1,490	1,495	1,510	1,515	1,525	1,535	1,545	1,555	9.3
Domestic use	12,354	12,510	12,550	12,625	12,715	12,770	12,910	12,915	13,000	13,060	13,095	13,205	72.8
Exports	2,293	1,925	1,900	1,950	1,975	2,025	2,050	2,075	2,100	2,125	2,175	2,200	13.6
Total Use	14,647	14,435	14,450	14,575	14,690	14,795	14,960	14,990	15,100	15,185	15,270	15,405	86.3
Ending stocks	2,295	2,487	2,607	2,597	2,637	2,647	2,657	2,617	2,632	2,627	2,607	2,612	16.9
Stocks/use ratio, percent (%)	15.67%	17.23%	18.04%	17.82%	17.95%	17.89%	17.76%	17.46%	17.43%	17.30%	17.07%	16.96%	0.01%
Prices (dollars per bushel):													
U.S. Average Farm price of Corn	\$3.36	\$3.20	\$3.30	\$3.35	\$3.35	\$3.40	\$3.40	\$3.45	\$3.50	\$3.50	\$3.55	\$3.60	\$0.03
Variable costs of production (dollars):													
Per acre	\$334	\$329	\$336	\$341	\$347	\$348	\$351	\$357	\$362	\$365	\$367	\$370	\$3.77
Returns over variable costs (dollars per acre):													
Net returns	\$253	\$232	\$236	\$247	\$248	\$262	\$266	\$276	\$288	\$291	\$306	\$320	\$7.28

Note: Totals may not add due to rounding. Marketing year beginning September 1 for corn.

U.S. Grain Sorghum long-term projections (USDA - November 28, 2017)

Item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Forecast 12- Year Annual Trend
Area (million acres):													
Planted acres	6.7	5.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	0.0
Harvested acres	6.2	5.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	0.0
Yield:													
Bushels per harvested acre	77.9	70.4	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	(0.5)
Supply and use (million bushels):													
Beginning stocks	37	34	19	33	37	36	35	34	38	37	36	35	0.5
Production	480	356	384	384	384	384	384	384	384	384	384	384	(2.8)
Imports	2	0	0	0	0	0	0	0	0	0	0	0	(0.1)
Total Supply	519	389	403	417	421	420	419	418	422	421	420	419	(2.4)
Feed & residual	129	60	65	65	65	65	65	60	60	60	60	60	(2.9)
Food, seed, & industrial	115	100	75	75	75	70	65	60	60	55	50	45	(5.2)
Domestic use	245	160	140	140	140	135	130	120	120	115	110	105	(8.1)
Exports	241	210	230	240	245	250	255	260	265	270	275	280	5.1
Total Use	485	370	370	380	385	385	385	380	385	385	385	385	(3.0)
Ending stocks	34	19	33	37	36	35	34	38	37	36	35	34	0.6
Stocks/use ratio, percent (%)	7.01%	5.14%	8.92%	9.74%	9.35%	9.09%	8.83%	10.00%	9.61%	9.35%	9.09%	8.83%	0.21%
Prices (dollars per bushel):													
U.S. Average Farm price of Grain Sorghum	\$2.79	\$3.10	\$3.30	\$3.30	\$3.30	\$3.30	\$3.30	\$3.35	\$3.40	\$3.40	\$3.45	\$3.45	\$0.04
Percent (%) Grain Sorghum of Corn Prices	83.0%	96.9%	100.0%	98.5%	98.5%	97.1%	97.1%	97.1%	97.1%	97.1%	97.2%	95.8%	0.39%
Variable costs of production (dollars):													
Per acre	\$135	\$134	\$137	\$139	\$142	\$143	\$144	\$147	\$149	\$151	\$152	\$153	\$1.83
Returns over variable costs (dollars per acre):													
Net returns	\$82	\$84	\$85	\$83	\$81	\$79	\$78	\$79	\$80	\$78	\$80	\$79	(\$0.49)

Note: Totals may not add due to rounding. Marketing year beginning September 1 for sorghum.

U.S. Wheat Long-term Projections (USDA - November 28, 2017)

Item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Forecast 12-Year Annual Trend
Area (million acres):													
Planted acres	50.1	46.0	45.0	46.0	47.0	47.0	47.0	47.0	48.0	48.0	48.0	48.0	0.1
Harvested acres	43.9	37.6	38.3	39.1	40.0	40.0	40.0	40.0	40.8	40.8	40.8	40.8	0.1
Yield:													
Bushels per harvested acre	52.7	46.3	47.4	47.8	48.2	48.6	49.0	49.4	49.8	50.2	50.6	50.9	0.2
Supply and use (million bushels):													
Beginning stocks	976	1,181	935	813	739	714	690	667	648	650	658	667	(39.0)
Production	2,309	1,741	1,815	1,869	1,928	1,944	1,960	1,976	2,032	2,048	2,064	2,077	10.4
Imports	118	150	135	130	130	130	130	130	120	120	120	120	(1.4)
Total Supply	3,402	3,071	2,885	2,812	2,797	2,788	2,780	2,773	2,800	2,818	2,842	2,864	(30.0)
Food	949	950	950	950	950	955	960	960	965	965	970	975	2.4
Seed	61	66	62	63	63	63	63	65	65	65	65	65	0.3
Feed & residual	156	120	110	100	110	110	110	110	120	120	130	140	0.3
Domestic use	1,167	1,136	1,122	1,113	1,123	1,128	1,133	1,135	1,150	1,150	1,165	1,180	2.9
Exports	1,055	1,000	950	960	960	970	980	990	1,000	1,010	1,010	1,010	1.1
Total use	2,222	2,136	2,072	2,073	2,083	2,098	2,113	2,125	2,150	2,160	2,175	2,190	4.0
Ending stocks	1,181	935	813	739	714	690	667	648	650	658	667	674	-34.1
Stocks/use ratio, percent (%)	53.15%	43.77%	39.24%	35.65%	34.28%	32.89%	31.57%	30.49%	30.23%	30.46%	30.67%	30.78%	-1.63%
Prices (dollars per bushel):													
U.S. Average Farm price of Wheat	\$3.89	\$4.60	\$4.60	\$4.80	\$4.90	\$5.00	\$5.10	\$5.10	\$5.10	\$5.10	\$5.10	\$5.20	\$0.09
U.S. Average Farm price of Corn	\$3.36	\$3.20	\$3.30	\$3.35	\$3.35	\$3.40	\$3.40	\$3.45	\$3.50	\$3.50	\$3.55	\$3.60	\$0.03
Percent (%) Wheat of Corn Prices	115.8%	143.8%	139.4%	143.3%	146.3%	147.1%	150.0%	147.8%	145.7%	145.7%	143.7%	144.4%	1.3%
Variable costs of production (dollars):													
Per acre	\$116	\$115	\$118	\$119	\$122	\$123	\$124	\$126	\$128	\$130	\$131	\$132	\$1.62
Returns over variable costs (dollars per acre):													
Net returns	\$89	\$98	\$100	\$110	\$114	\$120	\$126	\$126	\$126	\$126	\$127	\$132	\$3.63

Note: Marketing year beginning June 1 for wheat.

U.S. Soybean & Soybean Products Long-term Projections (USDA - November 28, 2017)

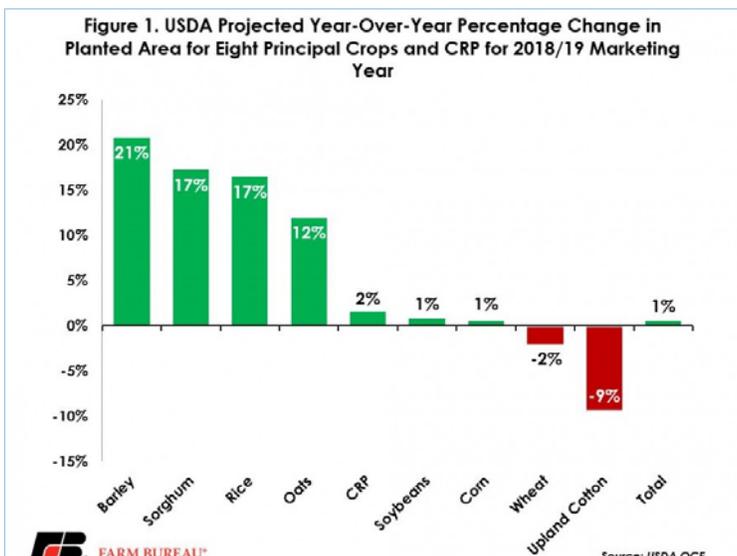
Item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Forecast 12-Year Annual Trend
Soybeans													
Area (million acres):													
Planted	83.4	90.2	91.0	91.0	91.5	92.0	92.0	92.0	91.5	91.5	91.5	91.5	0.38
Harvested	82.7	89.5	90.1	90.1	90.5	91.0	91.0	91.0	90.5	90.5	90.5	90.5	0.35
Yield, bushels per harvested acre	52.0	49.5	48.4	48.9	49.5	50.0	50.5	51.0	51.6	52.1	52.6	53.1	0.30
Supply (million bushels)													
Beginning stocks, September 1	197	301	425	376	351	324	323	325	328	321	324	331	2
Production	4,296	4,425	4,360	4,410	4,475	4,550	4,595	4,645	4,665	4,715	4,760	4,810	45
Imports	22	25	25	25	25	25	25	25	25	25	25	25	0
Total Supply	4,515	4,752	4,810	4,811	4,851	4,899	4,943	4,995	5,018	5,061	5,109	5,166	48
Use (million bushels)													
Crush	1,899	1,940	1,970	1,985	2,005	2,025	2,050	2,075	2,095	2,120	2,145	2,165	23
Seed and residual	141	136	140	140	141	142	142	142	142	142	143	143	0
Exports	2,174	2,250	2,325	2,335	2,380	2,410	2,425	2,450	2,460	2,475	2,490	2,515	27
Total use	4,214	4,326	4,435	4,460	4,526	4,577	4,617	4,667	4,697	4,737	4,778	4,823	51
Ending stocks (August 31st)	301	425	376	351	324	323	325	328	321	324	331	342	(3)
Stocks/use ratio, percent	7.20%	9.80%	8.50%	7.90%	7.20%	7.00%	7.00%	7.00%	6.80%	6.80%	6.90%	7.10%	-0.16%
Prices (dollars per bushel)													
U.S. Average Farm price of Soybeans	\$9.47	\$9.30	\$9.40	\$9.45	\$9.45	\$9.50	\$9.50	\$9.60	\$9.75	\$9.75	\$9.80	\$9.80	\$0.04
U.S. Average Farm price of Corn	\$3.36	\$3.20	\$3.30	\$3.35	\$3.35	\$3.40	\$3.40	\$3.45	\$3.50	\$3.50	\$3.55	\$3.60	\$0.03
Ratio of Soybean-to-Corn Prices	2.82	2.91	2.85	2.82	2.82	2.79	2.79	2.78	2.79	2.79	2.76	2.72	-1.08%
Variable costs of production (dollars):													
Per acre	\$173	\$173	\$176	\$178	\$181	\$182	\$184	\$187	\$189	\$191	\$192	\$194	\$2.03
Returns over variable costs (dollars per acre):													
Net returns	\$320	\$287	\$279	\$284	\$287	\$293	\$296	\$303	\$314	\$317	\$323	\$326	\$3.00

U.S. Upland Cotton Long-term Projections (USDA - November 28, 2017)

Item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	Forecast 12-Year Annual Trend
Area (million acres):													
Planted acres	9.9	12.4	11.2	10.5	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	0.0
Harvested acres	9.3	11.1	9.8	9.2	9.4	9.5	9.5	9.6	9.7	9.8	9.9	10.0	0.0
Yield:													
Pounds per harvested acre	855	888	854	859	864	869	874	879	884	889	894	899	3.3
Supply and use (thousand bales):													
Beginning stocks	3,664	2,686	5,989	5,371	4,519	4,033	3,813	3,859	3,970	4,146	4,336	4,440	4.5
Production	16,601	20,650	17,400	16,400	16,800	17,100	17,400	17,600	17,900	18,200	18,400	18,700	65.2
Imports	5	10	5	5	5	5	5	5	5	5	5	5	(0.2)
Total Supply	20,270	23,346	23,394	21,776	21,324	21,138	21,218	21,464	21,875	22,351	22,741	23,145	69.5
Domestic use	3,221	3,320	3,353	3,387	3,421	3,455	3,489	3,524	3,559	3,595	3,631	3,667	37.1
Exports	14,303	13,850	14,600	13,800	13,800	13,800	13,800	13,900	14,100	14,350	14,600	14,850	44.8
Total use	17,524	17,170	17,953	17,187	17,221	17,255	17,289	17,424	17,659	17,945	18,231	18,517	81.9
Ending stocks	2,686	5,989	5,371	4,519	4,033	3,813	3,859	3,970	4,146	4,336	4,440	4,558	(9.1)
Stocks/use ratio, percent	15.3	34.9	29.9	26.3	23.4	22.1	22.3	22.8	23.5	24.2	24.4	24.6	(0.2)
Prices (dollars per pound):													
U.S. Avg. Farm price of Upland Cotton	\$0.68	\$0.63	\$0.63	\$0.64	\$0.65	\$0.66	\$0.67	\$0.68	\$0.69	\$0.70	\$0.71	\$0.72	\$0.01
Variable costs of production (dollars):													
Per acre	\$512	\$516	\$528	\$535	\$542	\$548	\$554	\$562	\$570	\$577	\$583	\$589	\$7.11
Returns over variable costs (dollars per acre):													
Net returns*	\$180	\$135	\$142	\$150	\$156	\$164	\$170	\$177	\$184	\$192	\$199	\$206	\$5.07

Note: Marketing year beginning August 1 for upland cotton.

* Includes revenue from cottonseed, beginning with USDA Agricultural Projections to 2026. Previously, net returns were calculated using an assumed cottonseed to lint ratio. The net return values use projections of cottonseed prices and yields, so are not directly comparable to values from prior years.



On Nov. 28, 2017, USDA released several tables previewing the annual long-term [Agricultural Projections to 2027](#) (the complete projections will be released in February 2018). These early-release tables provide USDA estimates on the supply and demand for agricultural commodities through 2017 and take into consideration macroeconomic conditions, GDP growth, population growth and farm policy, among other factors. USDA assumes in the projections normal weather and no significant supply or demand disruptions, i.e. a business-as-usual environment.

Acreage Changes

One of the most anticipated items from the early-release is USDA’s projections for planted area in 2018. During 2017 the total planted area for the eight principal crops and conservation reserve program was 275.8 million acres. For 2018, USDA projects planted area to increase for all crops except upland cotton and wheat, with a total acreage gain of 1.8 million acres to 277.6 million acres, Figure 1. Then, from 2019 to 2027, USDA projects planted area and CRP land to remain steady between 276 and 278 million acres – slightly lower than the 280-million-acre-average over the last decade.

Of the acreage change projected in 2018, barley is projected to add 519,000 acres to 3 million acres. Sorghum acres are projected to increase by 991,000 acres in 2018 to 6.7 million acres. Rice planted area is projected to increase 413,000 acres to 2.9 million acres. Oat acreage is expected to increase 312,000 acres to 2.9 million acres. CRP acres are projected to increase modestly but will remain below the Congressional cap of 24 million acres. Soybean acres and corn acres are projected to increase by 793,000 acres and 571,000 acres, respectively, to 91 million acres each. If realized, 91 million acres would be a new record-high for soybean acreage. Wheat acres are expected to decline for a fourth year in a row, down 1 million acres to 45 million acres – the lowest level since U.S. first began recording acreage data in 1919. Finally, upland cotton acres are projected to decline 1.2 million acres to 11.2 million acres in 2018.

King Soybeans

While in aggregate USDA projects acreage to increase slightly in 2018, the biggest takeaway is that USDA projects soybean acreage to top corn acreage beginning in 2019 and continuing through 2027. 2018 soybean plantings are projected at 91 million acres, up 793,000 acres from 2017 or approximately 1 percent. Corn acres in 2018 are also projected at 91 million acres, up 571,000 acres or approximately 1 percent. By 2019 however, soybean acres are projected at 91 million acres while corn acres are

projected at 90 million acres. If realized, this would be the first market-driven acreage shift that resulted in more soybean acres planted than corn, i.e. King Soybeans, Figure 2.

There are a number of reasons for soybean acreage to continue expanding. The primary reason being demand for soybeans, soybean oil and soybean meal from China. A recent Market Intel reviewed [China's Insatiable Demand for Soybeans](#). For now, the U.S. is the number one producer of soybeans, but Brazil is a close second. Combined, Brazil and Argentina produce approximately 2 billion more bushels than the U.S. Another Market Intel reviewed South American soybean production trends, [Is it too Late for U.S. to be Crowned 'Soybean King'?](#)

Implications

Chinese demand for soybeans, from North and South America, has driven the rapid expansion in soybean planted area. U.S. producers responded to these market signals by increasing soybean production by 130 percent since 1990. Brazil and Argentina have been much more aggressive, expanding production by 579 percent and 396 percent, respectively. USDA's most recent projections confirm U.S. producers will continue to respond to Chinese demand and as a result, soybeans are likely to be the largest field crop planted in the U.S. by 2019.

A lot of uncertainty remains before planting decisions are ultimately made. Improvement in the global economy could increase demand for grains and oilseeds, pushing stocks lower than anticipated and pushing prices higher. Higher prices could result in acreage shifting into crops with a more profitable per acre return.

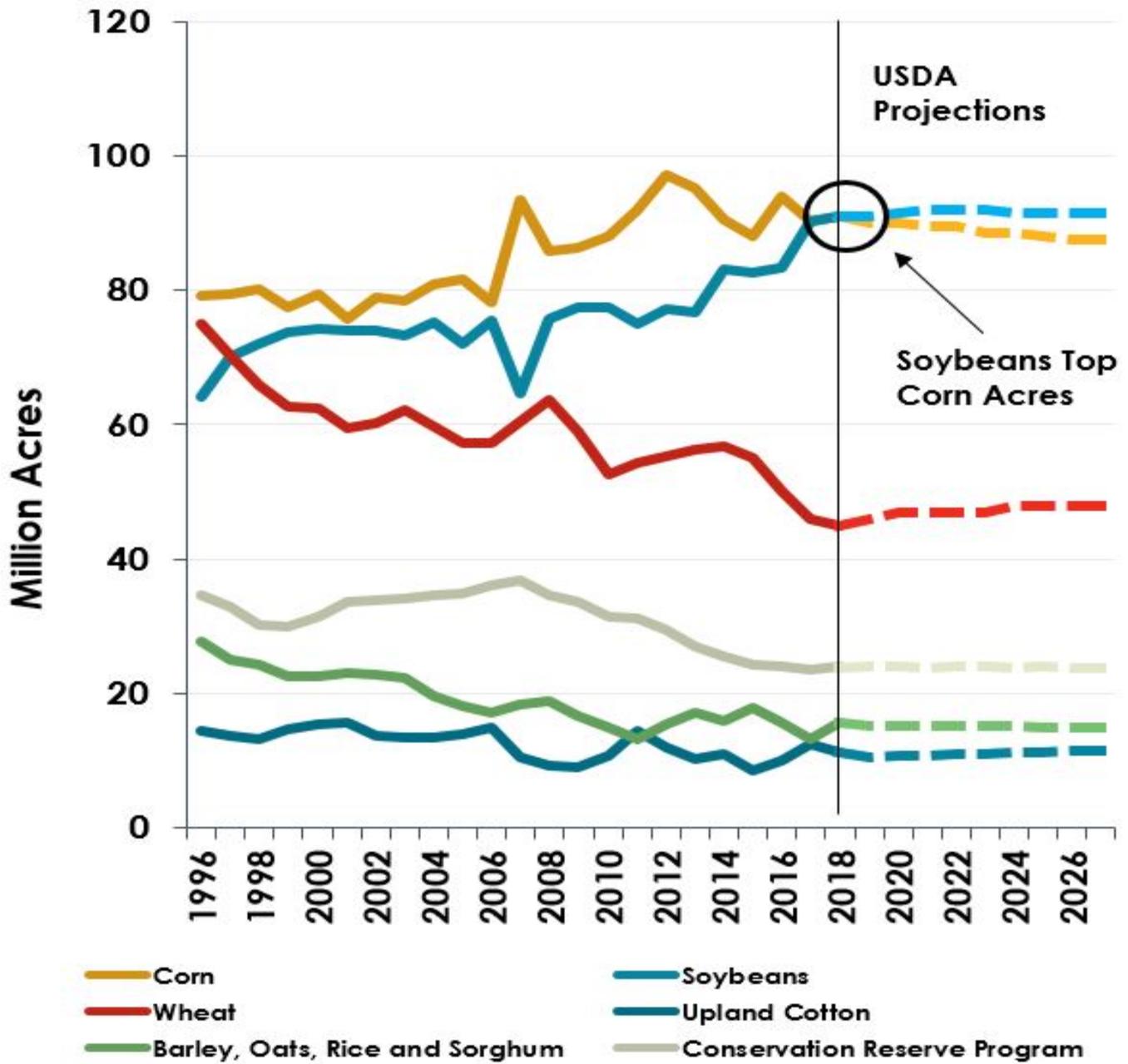
The black swan events that could roil grain markets and alter planting decisions include withdrawal from existing trade agreements (30 percent of corn exports go to NAFTA countries compared to 7 percent for soybeans), a slower pace of consumption, favorable growing conditions in South America and a strong dollar. This does not include what could happen in 280 characters or less, i.e. [blue swan](#) events.

These metrics are important to monitor for evaluating planting decisions in 2018 and marketing the 2017 crop. The next opportunity to review potential acreage decisions will come in the [March 2018 Prospective Plantings](#) report.

Contact:

John Newton, Ph.D.
Director, Market Intelligence
(202) 406-3729
jnewton@fb.org

Figure 2. USDA Long-Term Acreage Projections to 2027



Source: USDA OCE