

Will a large increase in corn acreage affect prices in 2019?



Many farmers seem poised to flee from soybeans to the more attractive promise of corn for their 2019 crop. A good-looking 2018 soybean crop is retesting 2009 lows, and ongoing trade war concerns with China continue to add to soybean price uncertainty and unease. What will happen to corn prices if we see a significant uptick in planted corn acres? Will this cause an over-production of corn and a resulting and significant decrease in price?

A reasonable assumption is that the market may need to absorb as much as 6 million acres diverted from soybeans to corn.

The first question to be answered is how many acres, at most, might move from soybeans to another use. Let's start answering this by determining a ball-park worst-case scenario as a guideline.

The market is facing an exceptionally high domestic stocks-to-usage ratio for soybeans of 18.4%. A similar ratio hasn't been seen since the 2006 crop year's 18.7%. In that case, U.S. planted acres dropped the following

year by 10.8 million acres. Thus, using this as a guideline, let's assume a worst-case and historically realistic loss for 2019 soybean acreage of 11 million acres.

However, a loss in soybean acreage doesn't automatically translate to an equal increase in corn acreage. Wheat is currently at the top end of its price range going back to 2015 and is showing a profitable return for most growers. Given this, let's assume wheat gets about half of the drop in soybean acreage. That leaves 6 million acres for corn, and a total of 95 million acres for our analysis. Does a 95-million-acre estimate pass the smell test? Yes. The highest we've ever seen for corn planted acres occurred during the 2010 to 2013 bull market, when acres planted ranged from 93 to 97 million.

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Extra supply only matters absent extra demand.

Certainly, 95 million planted corn acres appears quite concerning. However, to truly assess the impact of extra acres planted on price, you need to use metrics that account for both how much supply is out there and how much demand is in the market. That's why we use the stocks-to-usage ratio, which measures the level of carryover stock as a percentage of total use.

To develop a 2019 estimate for stocks-to-usage using our acreage shifting math, we start by estimating the demand side of the calculation as measured by carryout. We'll conservatively assume demand will remain the same as the USDA August WASDE numbers for the 2018 marketing year. We'll also use the 2018 ending stocks for corn as the beginning stocks for 2019. This results in a total usage (or demand) estimate of 14,980 million bushels of corn.

With the total usage estimate established, we can now build an estimated carryout (corn supply less corn demand) and stocks-to-usage tables (below) across a range of corn yield and planted acres scenarios. We'll center on our 2019 acreage shifting corn crop of 95 million planted acres and a 176-bushel yield, which should be close to the USDA trendline yield estimate for 2019. The resulting stocks-to-usage ratio is 13.9%, which places 2019 corn squarely in that sluggish range that indicates neither a bull nor bear market. Unfortunately, this doesn't give us a clear direction on how bearish the market might be. However, it does give us information that will allow us to assess price ranges and potential.

Carryout (in mil bu)

		Corn Yield							
		166.0	168.5	171.0	173.5	176.0	177.7	179.3	181.0
Planted Acres	91.0	606	815	1,023	1,232	1,441	1,583	1,716	1,858
	92.0	758	969	1,180	1,391	1,602	1,745	1,880	2,024
	93.0	911	1,124	1,337	1,550	1,763	1,908	2,045	2,190
	94.0	1,063	1,278	1,494	1,709	1,925	2,071	2,209	2,356
	95.0	1,215	1,433	1,651	1,868	2,086	2,234	2,374	2,522
	96.0	1,367	1,587	1,807	2,028	2,248	2,397	2,538	2,688
	97.0	1,520	1,742	1,964	2,187	2,409	2,560	2,703	2,854
	98.0	1,672	1,896	2,121	2,346	2,570	2,723	2,867	3,020
	99.0	1,824	2,051	2,278	2,505	2,732	2,886	3,031	3,186
	100.0	1,976	2,205	2,435	2,664	2,893	3,049	3,196	3,352

Stocks-to-Usage (in percentage)

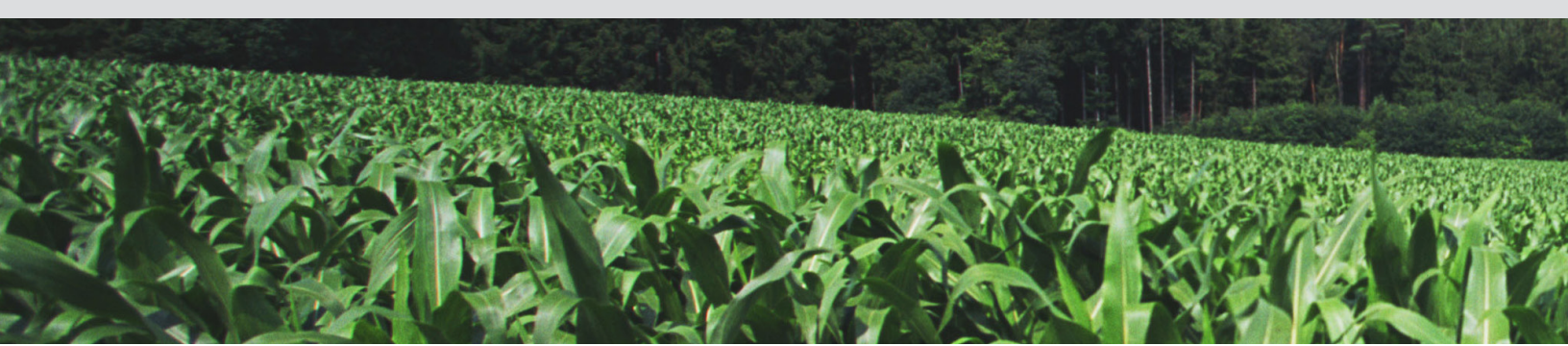
		Corn Yield							
		166.0	168.5	171.0	173.5	176.0	177.7	179.3	181.0
Planted Acres	91.0	4.0%	5.4%	6.8%	8.2%	9.6%	10.6%	11.5%	12.4%
	92.0	5.1%	6.5%	7.9%	9.3%	10.7%	11.7%	12.6%	13.5%
	93.0	6.1%	7.5%	8.9%	10.3%	11.8%	12.7%	13.7%	14.6%
	94.0	7.1%	8.5%	10.0%	11.4%	12.8%	13.8%	14.7%	15.7%
	95.0	8.1%	9.6%	11.0%	12.5%	13.9%	14.9%	15.8%	16.8%
	96.0	9.1%	10.6%	12.1%	13.5%	15.0%	16.0%	16.9%	17.9%
	97.0	10.1%	11.6%	13.1%	14.6%	16.1%	17.1%	18.0%	19.1%
	98.0	11.2%	12.7%	14.2%	15.7%	17.2%	18.2%	19.1%	20.2%
	99.0	12.2%	13.7%	15.2%	16.7%	18.2%	19.3%	20.2%	21.3%
	100.0	13.2%	14.7%	16.3%	17.8%	19.3%	20.4%	21.3%	22.4%

Sources: USDA & Stewart-Peterson Inc., as of August 10, 2018

A U.S. stocks-to-usage ratio of 10% or lower for corn is generally considered bullish as demand gets close to matching supply. In contrast, a 15% or higher ratio is considered bearish as supply begins to far outweigh demand. Between 10 and 15% is that sluggish range where prices may – or may not – hold steady. This sluggish price action we've experienced in 2016, 2017 and 2018 reflects the actual, expected, and projected stocks-to-usage ratios of 15.7%, 13.6%, and 11.2%, respectively.

August 2018 WASDE

18/19 Ending Stocks	1,684
Imports	50
Feed & Residual	5,525
Food/Seed/Indu	7,105
Export	2,350
Total Usage	14,980



Six million additional acres of corn will likely result in prices similar to recent prices.

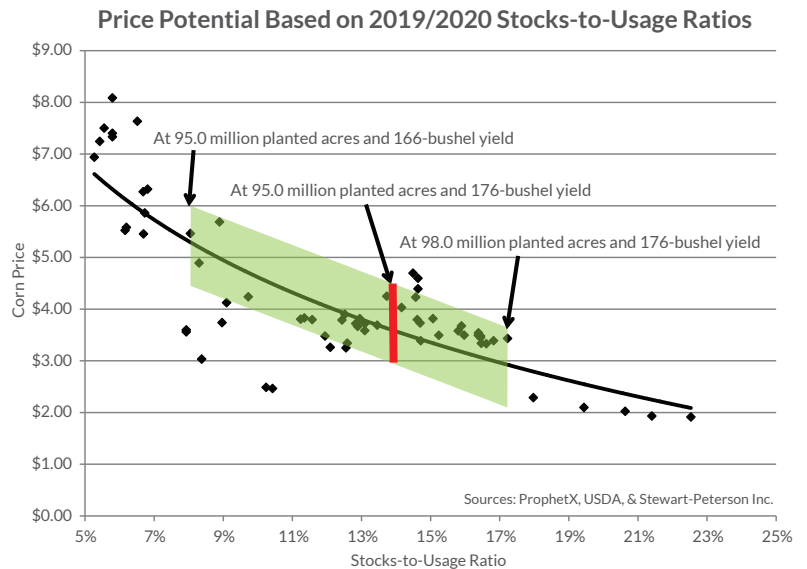
Stocks-to-usage ratios are sensitive to price. Assuming different stocks-to-usage ratios, we can estimate the approximate fair value of 2019 corn.

We'll plot three scenarios on a stocks-to-usage ratio chart:

1. 95 million planted acres with 176-bushel yield (baseline 13.9% scenario)
2. 95 million planted acres with 166-bushel yield (bullish 8.1% scenario)
3. 98 million planted acres with 176-bushel yield (bearish 17.2% scenario)

The resulting potential range of prices? Not as bad as you might expect.

In our baseline estimate, the stocks-to-usage ratio increases to 13.9%, but the fair value of corn is still between \$3.00 and \$4.50. Our bearish scenario of 98.0 million acres puts the stocks-to-usage ratio at 17.2%, about the same level as 2016 and 2017. This would give us prices in the same range as the last couple years – not great, yet not worse. Our bullish scenario of below trendline yields drops stocks-to-usage down to 8.1% and would imply \$4.50 to \$5.50 corn prices. This shows how important yield is, as yields below trendline need price rallies to ration demand and preserve ending stocks.



The chart above is based on historical price vs. stocks-to-usage ratios for the months of August to December from 2005 to 2018 to date. The dots represent the data points, and the curve represents the best fit. The overlying green box represents the Stewart-Peterson Inc. price potential estimates across various stocks-to-usage ratios.



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Let math and analysis help guide your decisions before you act on instinct.

Obviously, there are a multitude of other factors which can change these estimates. However, looking at a realistic scenario of potential changes helps better prepare you for the time those changes occur, and prevents you from making decisions that are emotionally charged. This analysis may also mitigate your concerns over plummeting prices in the next year.

Developing a plan of action and adapting the plan due to market changes is difficult, which is why many producers turn to an advisor for help. If you're interested in seeing how we can help you, give us a call.

What about soybeans?

If you're interested in seeing how acreage changes may affect soybeans in 2019, ask our about follow-up report. Email us at info@stewart-peterson.com.

About Us.

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