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Dear Ag industry associate:

We're facing a challenging environment across agriculture sectors, which heightens the importance of effective margin management to protect your bottom line. As we head into a time of year where risk premiums have a tendency to expand, many sectors of agriculture are trying to understand the implications of potential policy initiatives of the new administration.

Our feature article this month, "Increased Uncertainty Requires More Flexible Margin Management," explores some of the key risks in today's agriculture market and compares the current cost level of options to the value of the flexibility they bring to a margin management strategy.

In addition, our regular margin watch reports detail the current profitability outlooks for the crop and livestock sectors.

As always, if you have questions, please feel free to contact me.

Respectfully,

Chip Whalen

Chip Whalen
Managing Editor

Chip Whalen is the managing editor of MarginManager and the vice president of education and research for CIH. He teaches classes on margin management throughout the country and can be reached at cwhalen@cihedging.com.

Upcoming Education Events

Margin Management for Lenders Chicago	Commodity Price Management Chicago
April 19-20	May 3-4

Increased Uncertainty Requires More Flexible Margin Management

Agricultural producers are accustomed to a certain degree of uncertainty over the prices of grain futures.

That's especially true at this time of year when variables that could ultimately have a dramatic effect on supply – such as weather and growers' planting decisions – remain largely unknown.

But in addition to the usual factors, this year there is an added layer of uncertainty over potential changes to trade and labor policy. As with any new president, the current administration is looking to deliver on campaign promises and accomplish a lot in its early days. That may mean new policy initiatives that have a significant impact commodity prices and profit margins in the agriculture sector.

Yet, no matter how much remains unknown, agriculture producers have the power to proactively manage their forward margins. Among the most effective margin management tools are options, which allow you to protect a price level, without reducing your ability to participate if the market moves in your favor. That flexibility comes with a cost, which generally increases with uncertainty. But current option price levels may not yet account for all the unknowns in today's agriculture markets. That's why now is a good time to consider whether incorporating options in your hedging strategy can add valuable price protection at a reasonable cost.

Agriculture Faces Risks from Multiple Directions

Apart from the new administration's policy initiatives, other factors are creating headwinds for U.S. commodity exports and prices. In particular, as shown in the following chart, the U.S. dollar has been gaining strength over the past 31 months. That trend may be causing reduced competitiveness for many agricultural products – especially in countries whose currencies have been weakening on a relative basis. Janet Yellen recently signaled that the Fed will likely raise interest rates at their March meeting. That may be just one of multiple rate hikes in store for 2017 that will add further strength to the dollar over the medium term.

U.S. Dollar Index
June 2013 - Feb 2017

The U.S. dollar has been gaining strength since June of 2014.

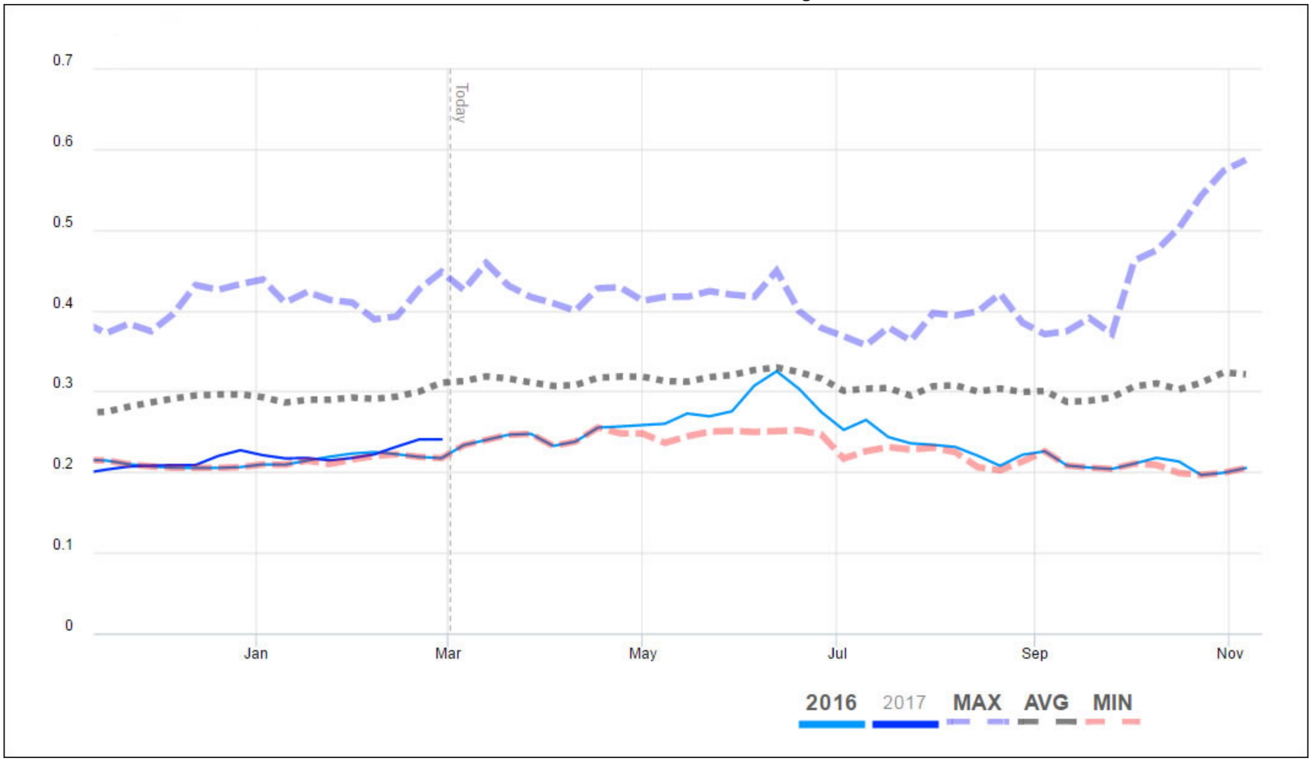
Next month, planting season will begin in earnest across the U.S. Midwest. While it is too early to worry about planting or growing conditions, weather remains a risk for the market to contend with. As we near the end of an abnormally mild winter, there are already concerns that dryness in the Southeast and Plains could prove unfavorable and spread into the Corn Belt through the spring and summer.

Options: Flexible Tools for Uncertain Markets

Typically, increased uncertainty causes option prices to climb. That's because options give you the ability to ensure a minimum – or maximum – price, regardless of how the market moves. The more uncertainty there is over the direction of markets, the greater the value of that ability. But curiously, given the highly uncertain current environment, option prices remain low.

A useful measure of option pricing is what's called implied volatility, which reflects collective expectations for future price swings. Despite a recent uptick, implied volatility remains near 10-year lows. As shown in the following chart, the current implied volatility of at-the-money options on the new-crop December Corn futures contract is about 24%. That's quite similar to where it stood at around this time in 2016. That year, implied volatility increased by 10 points, or 45%, over the three and a half months between late February and mid-June. That movement was consistent with historical tendencies for implied volatility to increase in spring and early summer, as grain supply factors like acreage and weather remain largely unknown.

Implied Volatility of December 2017 Corn Options
10-Year Historical Range



The implied volatility of December Corn in 2016 increased in the period from late February to mid-June from a low of about 22% to 32%, indicating a similar increase in overall option price levels.

The value of an option is also affected by the amount of time until expiration. As expiration approaches, generally an option's price will decline. However, an increase in implied volatility can more than offset that time decay. For example, assuming the futures price remains constant, if implied volatility on December Corn options were to follow last year's trajectory and experience a 10-point jump between now and mid-June, the price of a December corn $4.00 call option would rise during that timeframe by 2 ½ cents/bushel.

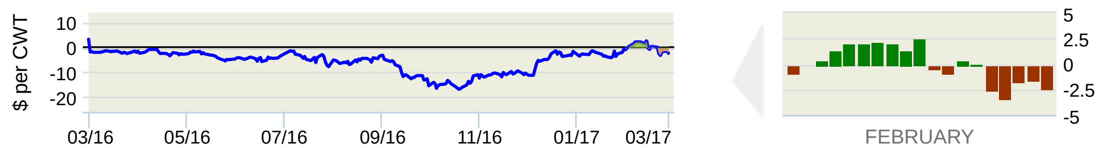
Of course, it is impossible to predict the direction of any prices, including options. But the low level of implied volatility means today's options prices may not yet reflect the large amount of uncertainty in the market. And while uncertainty of any kind can be unsettling, the good news is that you don't need to wait for the future to play out before attaining greater peace of mind over your forward margins.

If you have questions or would like more information about option strategies for your operation, please contact CIH at 1.866.299.9333 or mail@cihedging.com.

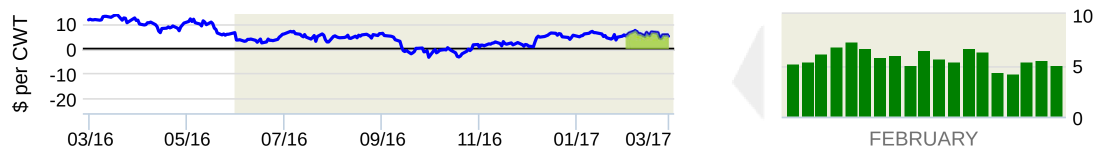
Hog Margin Watch: February

Hog margins deteriorated over the second half of February due to lower hog prices as feed costs held steady. While margins are still positive in both Q2 and Q3, they remain well below average from a historical perspective. Hog prices have come under some pressure from weakness in the cutout, in particular from a large drop in the value of the belly primal. The resulting narrowing of pork processor margins may be causing packers to slow down their slaughter schedules. On a positive note, weekly hog slaughter has been trailing what would have been implied by the latest December quarterly hog inventory survey from USDA. As a result, the current Q2 pork production estimates, which are 6% higher than last year, may prove to be overly optimistic. That would be a bullish indicator for hog prices. However, questions remain about both domestic and export demand heading into spring. Meanwhile, feed prices appear to be catching a bid following rumors that the Trump administration is considering changes to the Renewable Fuels Standard. At issue are changes in the point of responsibility for certifying RINS compliance with the RFS mandate and whether to allow E15 in gasoline blendstocks year-round, which would potentially be supportive of corn prices. In addition, a possible restriction on tax credits in the advanced biofuels mandate, to apply only U.S.-produced biodiesel, was viewed as very supportive for the soybean oil market. Given recent price movements, hog producers have been adding flexibility to existing corn positions.

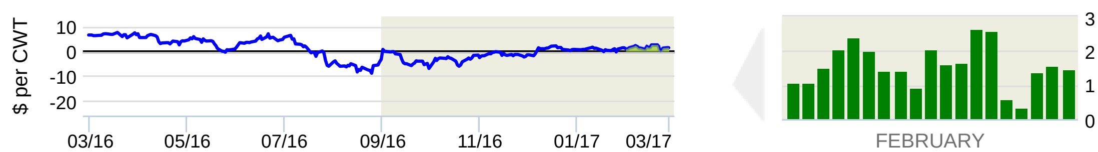
1st Qtr '17 2016 2017 Q1 2017: HIGH **$2.62** LOW **($17.00)** LAST **($2.40)** 10YR PERCENTILE **34.9%**



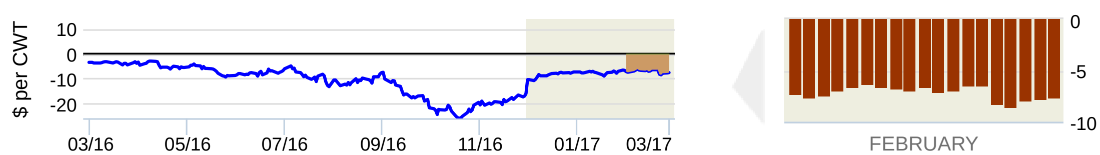
2nd Qtr '17 2016 2017 Q2 2017: HIGH **$7.37** LOW **($3.45)** LAST **$5.12** 10YR PERCENTILE **34.9%**



3rd Qtr '17 2016 2017 Q3 2017: HIGH **$2.67** LOW **($6.86)** LAST **$1.47** 10YR PERCENTILE **32.0%**



4th Qtr '17 2016 2017 Q4 2017: HIGH **($6.21)** LOW **($10.78)** LAST **($7.59)** 10YR PERCENTILE **24.4%**



The Hog Margin calculation assumes that 73 lbs of soybean meal and 4.87 bushels of corn are required to produce 100 lean hog lbs. Additional assumed costs include $40 per cwt for other feed and non-feed expenses.

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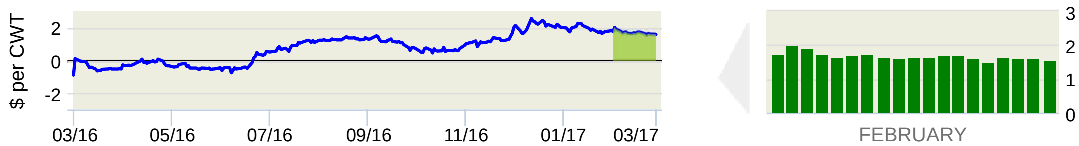
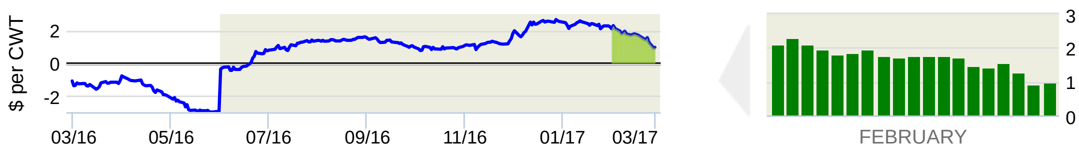
Dairy Margin Watch: February

Dairy margins weakened further over the second half of February due to a sharp drop in milk prices although feed costs were steady to slightly higher. Margins remain at or above the 80th percentile of the previous decade through the first half of 2017, and at or above the 70th percentile through the second half of the year. Milk prices continue to be pressured by increasing production and rising stocks of dairy products. USDA reported January U.S. milk production at 18.127 billion pounds, up 275 million, or 1.54%, from December and 454 million pounds, or 2.45%, from 2016. Total cheese stocks in cold storage on January 31 were reported at 1.233 billion pounds, 2.86% higher than December, and higher than the average December-January build of 1.33% over the past 10 years. Butter stocks in cold storage were 223.1 million pounds, up 34.34% from December, but slightly below the average month-over-month build of 36.07% for the past decade. Both cheese and butter stocks also showed annual builds from 2016. New Zealand's milk production is recovering faster than expected, while January Chinese powder imports were down on the year, which may add to growing global milk powder inventories over the medium term. Feed costs held mostly steady over the past two weeks, although both corn and the soybean complex moved higher recently in response to rumors that the Trump administration may be considering adjustments to the Renewable Fuels Standard that were considered bullish, specifically, allowing for E15 in domestic gasoline blendstocks year-round and limiting biodiesel credits to domestically manufactured product. Dairy producers have been focused on adding flexibility to existing feed and milk hedges following recent price movements in both markets.

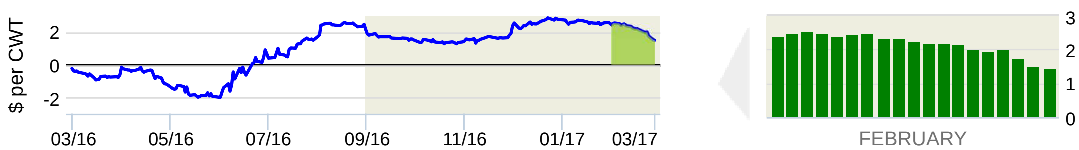
1st Qtr '17 2016 2017 Q1 2017: HIGH **$2.57** LOW **($0.76)** LAST **$1.58** 10YR PERCENTILE **87.5%**



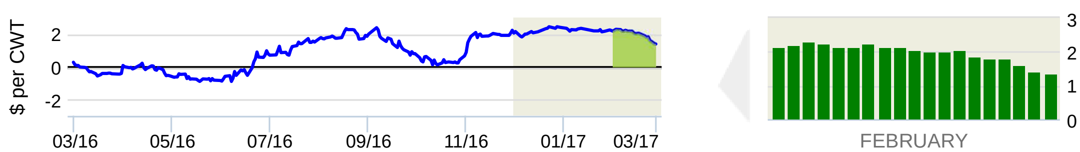
2nd Qtr '17 2016 2017 Q2 2017: HIGH **$2.66** LOW **($0.45)** LAST **$0.97** 10YR PERCENTILE **80.8%**



3rd Qtr '17 2016 2017 Q3 2017: HIGH **$2.87** LOW **$1.28** LAST **$1.49** 10YR PERCENTILE **74.3%**



4th Qtr '17 2016 2017 Q4 2017: HIGH **$2.47** LOW **$1.40** LAST **$1.40** 10YR PERCENTILE **69.5%**



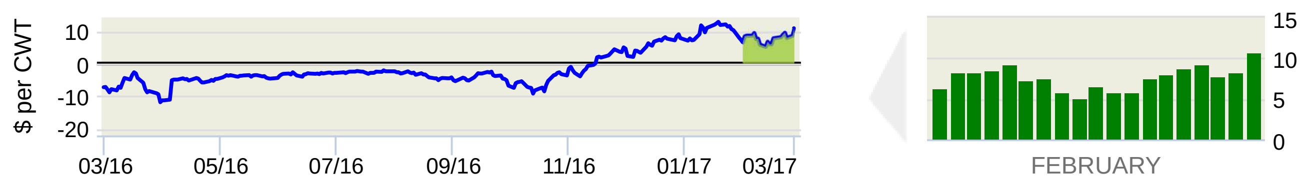
The Dairy Margin calculation assumes, using a feed price correlation model, that for a typical dairy 62.4 lbs of corn (or equivalent) and 7.34 lbs of meal (or equivalent) are required to produce 100 lbs of milk (includes dry cows, excludes heifers not yet fresh). Additional assumed costs include $0.90/cwt for other, non-correlating feeds, $2.65/cwt for corn and meal basis, and $8.00/cwt for non-feed expenses. Milk basis is $0.75/cwt and non-milk revenue is $1.00/cwt.

Beef Margin Watch: February

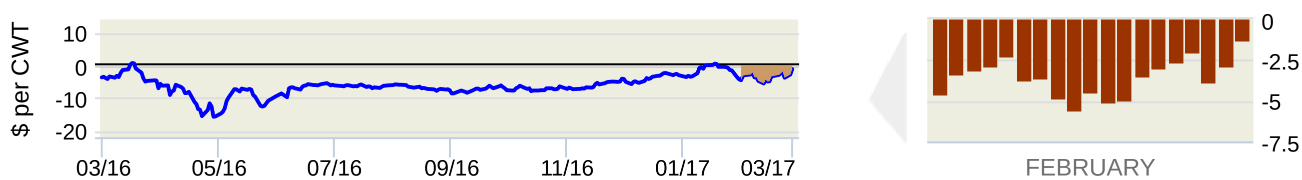
Beef margins improved over the second half of February due to higher cattle prices, while corn feed costs held mostly steady. Continued strength in spot margins are likely behind the stronger January placements noted in the latest monthly Cattle on Feed report. USDA reported January placements at 1.981 million head, up 11.4% from 2016, when on average the market was anticipating a 10.6% increase. Total on-feed supplies as of February 1 were reported at 10.782 million head, up 0.7% from last year and very close to industry expectations of a 0.6% increase on average. January cattle marketings of 1.751 million head were right at pre-report expectations, up 10.2% from 2016. Meanwhile, total beef supplies in cold storage on January 31 were reported by USDA at 537.542 million pounds, down 30.346 million, or 5.34%, from December. The draw-down compares to the 10-year average December-to-January build in beef supplies of 0.91% and was considered somewhat friendly for beef prices. Milder weather and the continued improvement in economic conditions may be helping to stimulate demand, according to analysts. Meanwhile, corn prices have moved higher in recent sessions following rumors that the Trump administration may be looking to amend the Renewable Fuels Standard. Specifically, the point of obligation to prove compliance with the mandate could change from refiners to blenders. There were also discussions about allowing E15 in domestic gasoline blendstocks year-round and limiting biodiesel credits to domestically-manufactured product, both of which were considered bullish for corn and soybean oil. Given the higher trade in corn, beef producers have continued adding flexibility to feed hedges, while also looking to strengthen cattle hedges.

Live Cattle Marketing Periods:

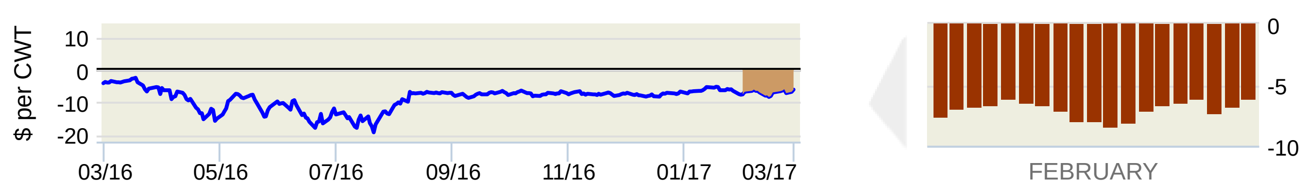
Apr '17 2016 2017 Apr 2017: HIGH **$12.69** LOW **($11.92)** LAST **$10.73** 10YR PERCENTILE **97.6%**



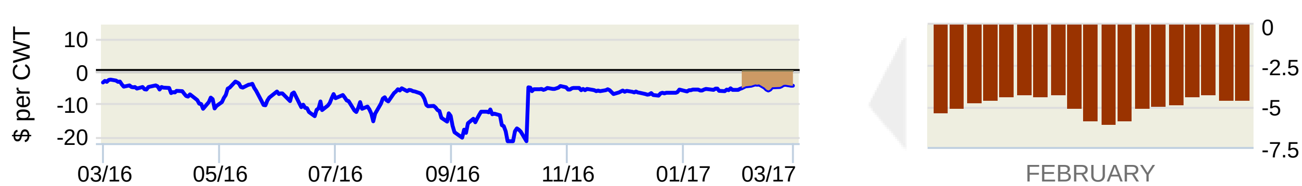
Jun '17 2016 2017 Jun 2017: HIGH **$0.65** LOW **($15.72)** LAST **($1.20)** 10YR PERCENTILE **89.3%**



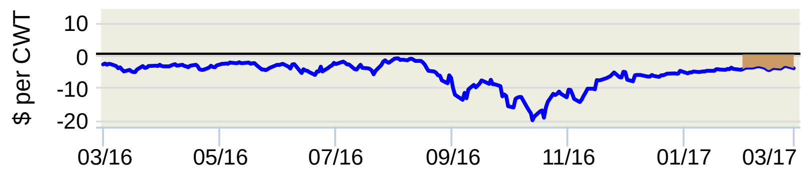
Aug '17 2016 2017 Aug 2017: HIGH **($2.49)** LOW **($19.19)** LAST **($6.11)** 10YR PERCENTILE **44.0%**

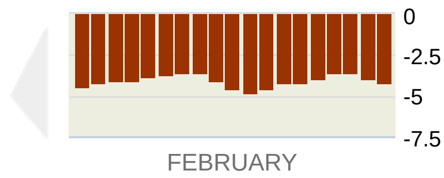


Oct '17 2016 2017 Oct 2017: HIGH **($2.73)** LOW **($21.47)** LAST **($4.51)** 10YR PERCENTILE **32.6%**

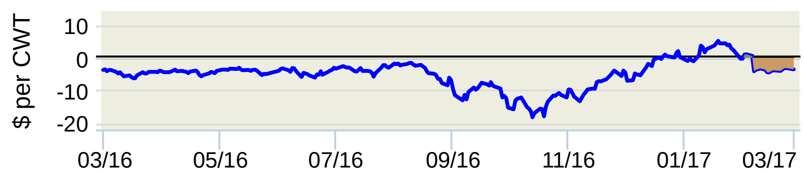


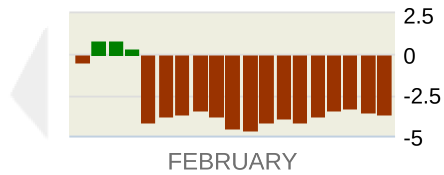
Dec '17 2016 2017 Dec 2017: HIGH **($1.19)** LOW **($20.08)** LAST **($4.15)** 10YR PERCENTILE **33.4%**





Feb '18 2017 2018 Feb 2018: HIGH **$5.05** LOW **($18.30)** LAST **($3.67)** 10YR PERCENTILE **33.3%**





The Beef Margin calculation uses Feeder Cattle futures to price inbound animals and assumes each will consume 55 bushels of corn and cost approximately $250 per head (for other feed and non-feed expenses) to gain 550 pounds and reach a market weight of 1,250 pounds.

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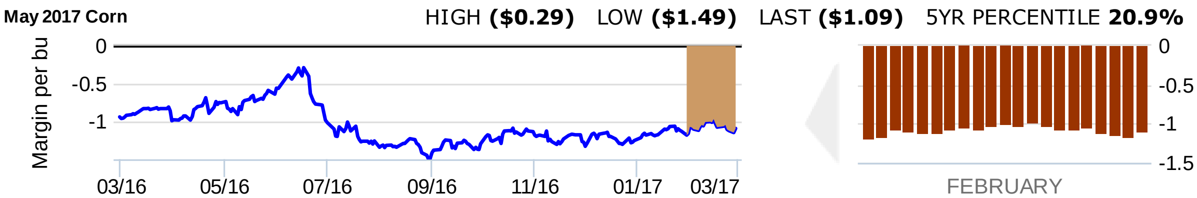
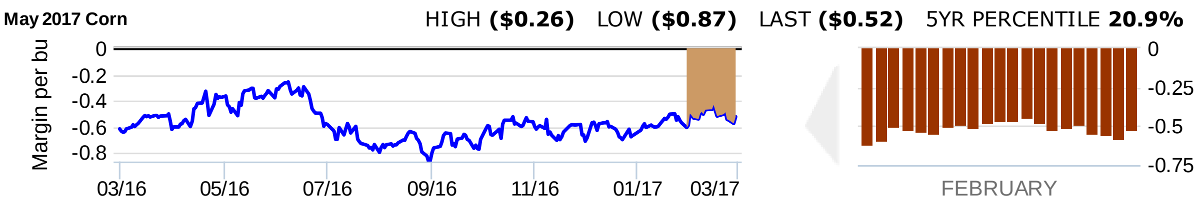
Corn Margin Watch: February

Corn prices and margins moved lower over the past two weeks, but received a massive jolt on the last day of February. Corn had spent most of the month working lower until rumors of changes to the Renewable Fuel Standards (RFS) mandate hit the market. It was widely reported that President Trump was readying an executive order to change the RFS in several ways. The CEO of the Renewable Fuels Association was quoted as saying the order would change the point of obligation of RIN (Renewable Identification Number) compliance, expand the availability of 15% blended ethanol into gasoline all year round, and limit eligibility for the bio-diesel tax credit to producers that use only U.S.-originated blending stocks. The Trump White House quickly denied the existence of such an order, and the corn rally dissipated. Before the excitement of the ethanol news the USDA released the first glance at the 2017/18 corn supply and demand picture at the annual Ag Outlook Forum. Those projections, combined with the hard data coming in late March from the Prospective Plantings and Quarterly Grain Stocks Reports, will form the basis of the initial corn balance sheet released in the May WASDE report. Until then, the USDA projects reduced planted acres of corn at 90.0 million acres and lower production at 14.065 billion bushels, on yields of 170.7 bpa. The largest demand adjustment was a reduction in export expectations of 325 million bushels, bringing the total back to 2015/16 levels. Given lower demand, acres, production and yields, stocks are projected slightly lower at 2,215 million bushels. As spring is just around the corner, there is plenty of uncertainty in the air and corn producers are considering flexible strategies to get through this highly charged period.



The estimated yield for the 2017 crop is 182 bushels per acre and the non-land operating cost is $595 per acre. Land cost for 2017 is estimated at $238 per acre [1]. Basis for the 2017 crop is estimated at $-0.25 per bushel.



The estimated yield for the 2018 crop is 184 bushels per acre and the estimated operating cost is $547 per acre. Land cost for 2018 is estimated at $228 per acre [1]. Basis for the 2018 crop is estimated at $-0.25 per bushel.

[1] The Corn Margin Watch yield, land and non-land operating cost values are based upon central Illinois low productivity farmland crop estimates in the "Historic Corn, Soybean, Wheat, and Double-crop Soybeans" report published by the Department of Agricultural and Consumer Economics at the University of Illinois.

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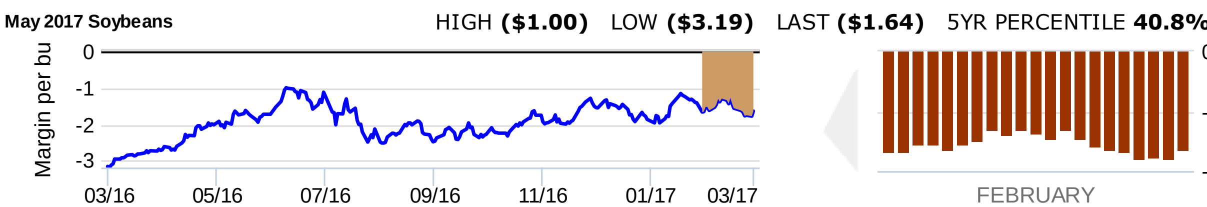
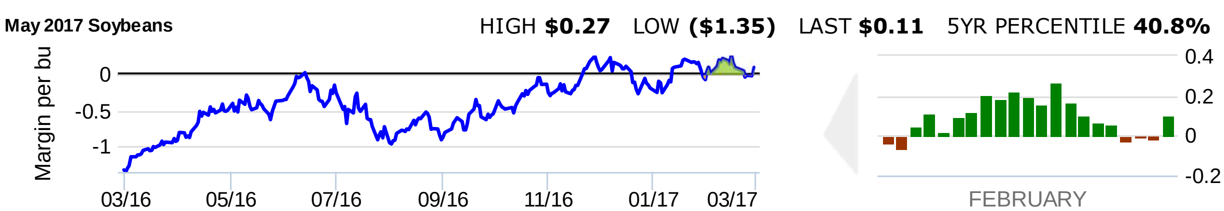
Soybeans Margin Watch: February

Soybean prices and margins were lower over the past two weeks. Production projections in Brazil and Argentina have grown on an almost-daily basis. Many private forecasters have been ramping up the Brazilian crop to record levels. The harvest there is approaching 50% complete and anecdotes about stout yields have heightened expectations. The export pipeline from Brazil is ready to begin to flow and should soon start to hamper U.S inspections, as is seasonally typical. The USDA released the first indications of supply and demand expectations at the annual Ag Outlook Forum last week. Planted acres of beans are projected to jump to 88.0 million acres, up 4.6 million from last year. The additional bean acres come at the expense of both lower wheat and corn seedings. Despite the higher bean acreage, lower yields of 48.0 bpa led to lower production projections of 4,180 million bushels. The crush and export expectations were raised and ending stocks were estimated to be unchanged at 420 million bushels. The Ag Outlook Forum projections, coupled with the data from the late March Prospective Plantings and Quarterly Grains Stocks Reports, will form the basis for the initial soybean balance sheet released in the May WASDE report. Rumors of a change in the structure of a bio-diesel tax credit late last month raised the specter of a potential increase in demand for soybean oil, prompting a short-lived price jump. In advance of U.S. spring planting intentions and seeding season, soybean producers continue to focus on flexible hedging strategies.



The estimated yield for the 2017 crop is 52 bushels per acre and the non-land operating cost is $365 per acre. Land cost for 2017 is estimated at $238 per acre [1]. Basis for the 2017 crop is estimated at $-0.4 per bushel.



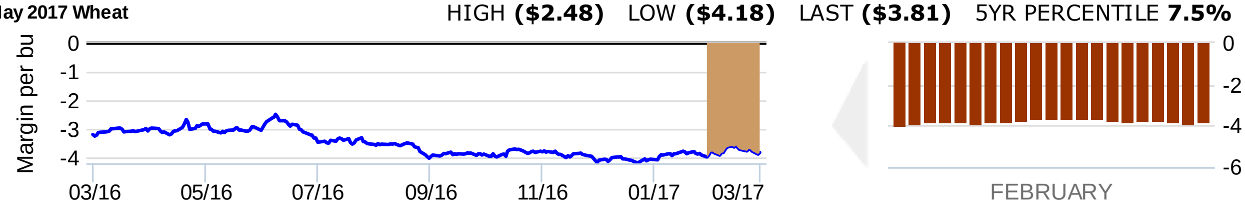
The estimated yield for the 2018 crop is 53 bushels per acre and the estimated operating cost is $290 per acre. Land cost for 2018 is estimated at $228 per acre [1]. Basis for the 2018 crop is estimated at $-0.3 per bushel.

[1] The Soybeans Margin Watch yield, land and non-land operating cost values are based upon central Illinois low productivity farmland crop estimates in the "Historic Corn, Soybean, Wheat, and Double-crop Soybeans" report published by the Department of Agricultural and Consumer Economics at the University of Illinois.

Wheat Margin Watch: February

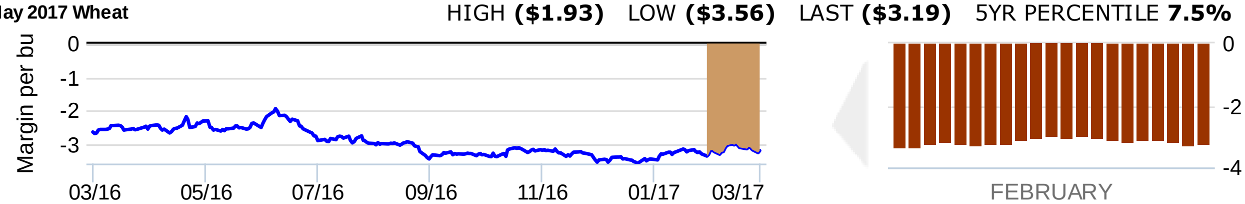
Wheat prices and margins were down over the past two weeks, as global production expectations are on the rise. India is expected to recover from the El Niño-affected production deficits of the past two years and 2017/18 production is projected at a record high of 96.6 million metric tons. There is chatter about reinstating the wheat import duty there as conditions and supply improve. Wheat production expectations were also raised in Australia and Argentina. At the annual Ag Outlook Forum, the USDA stated the record-large world wheat supplies will make U.S. export competition "tough," and they reduced the export expectation by 50 million bushels. Wheat acreage projections from the forum were down to 46.0 million acres, a decrease of 4.2 and 9.0 million acres from the past two years. As such, production was lowered to 1,837 million bushels, or 20%, as yields were lowered to 47.1 bpa, or 10%. Ending stocks are also projected to be lower, at 905 million bushels. Given the recent drop, some wheat producers are considering making adjustments to add some flexibility to existing coverage.

May 2017 Wheat HIGH **($2.48)** LOW **($4.18)** LAST **($3.81)** 5YR PERCENTILE **7.5%**



The estimated yield for the 2017 crop is 67 bushels per acre and the non-land operating cost is $358 per acre. Land cost for 2017 is estimated at $158 per acre [1]. Basis for the 2017 crop is estimated at $-0.55 per bushel.

May 2017 Wheat HIGH **($1.93)** LOW **($3.56)** LAST **($3.19)** 5YR PERCENTILE **7.5%**



The estimated yield for the 2018 crop is 68 bushels per acre and the estimated operating cost is $358 per acre. Land cost for 2018 is estimated at $150 per acre [1]. Basis for the 2018 crop is estimated at $-0.3 per bushel.

[1] The Wheat Margin Watch yield, land and non-land operating cost values are based upon central Illinois low productivity farmland crop estimates in the "Historic Corn, Soybean, Wheat, and Double-crop Soybeans" report published by the Department of Agricultural and Consumer Economics at the University of Illinois.

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