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Dear Ag industry associate:

A recent feature of the hog market is packers looking to source additional pigs and offering new contracts to producers. Renegotiating existing contracts with producers is also taking place. Given the state of current and projected hog margins, achieving even small marketing improvements is a priority for producers right now.

Understanding different payment mechanisms can be confusing though as there are many offerings to choose from. Whether the contracts are priced off the CME Lean Hog Index, or some other USDA reference such as cutout or the Western Corn Belt, it is necessary for producers to be able to compare these alternative side by side in order to make more informed decisions.

This month's feature article, "Comparing Cash Contracts" explores this topic in greater depth by looking at two different types of payment formulas to see where they have varied historically. There are advantages and disadvantages to being priced off of different indices, and producers should weigh these considerations carefully before committing to any particular type of contract.

Meanwhile, trade issues remain front and center across the agricultural markets as tensions heat up between the U.S. and China. While much of the attention has focused on the soybean market, all sectors of the ag economy have been negatively impacted with respect to forward profit margins. Our regular Margin Watch features cover this and other topics in greater detail.

Respectfully,

Chip Whalen

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

Hog Margin Management
Iowa | August 7-8

Dairy Margin Management
Lake Tahoe | August 21-22

IN THIS ISSUE

FEATURE

Comparing Cash Contracts

With hog margins currently at some of the most depressed levels in years, many producers are understandably concerned with the price they are receiving for their pigs. While much of the present situation is beyond the producer's control, such as tariffs and trade issues, there are other areas where they can exert more influence.

Controlling costs is certainly one of those, and many operations have already made adjustments to become more efficient. Another area that may be one to look at is how they are paid by the packer for their pigs. Most producers deliver hogs off formula contracts, where the pricing mechanism is determined in advance and remains consistent over the life of the contract. These may include some differential from the CME Lean Hog Index for example, or be a function of some cash price as reported by USDA such as a percentage of cutout or differential from Western Corn Belt.

Considering a New Contract?

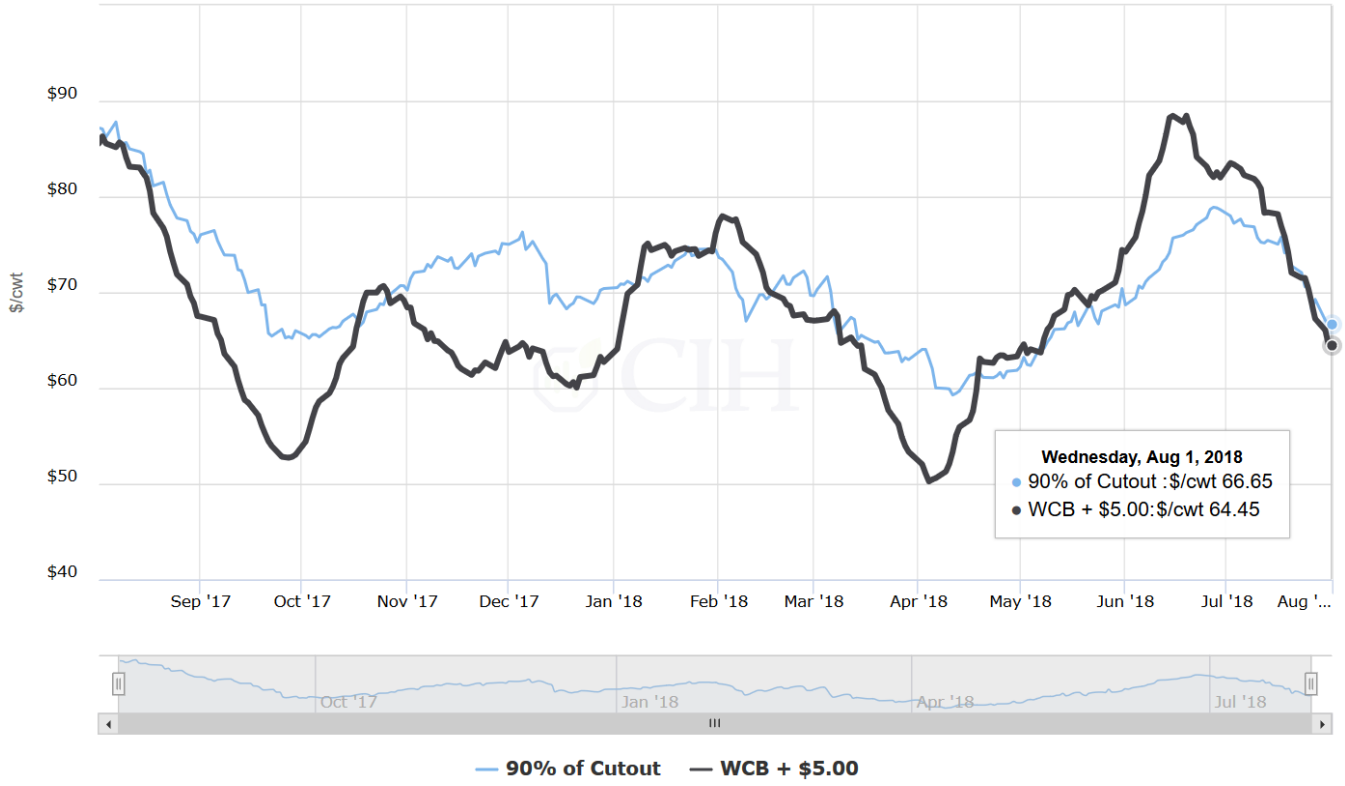
Many producers reading this may already be considering a new packer contract or in the process of renegotiating their current packer agreement. With the new plants that have recently opened, some producers have been approached by packers looking for pigs to fill their schedules and offered contracts with pricing features that differ from those they are currently using. You may be curious about how these contracts would have compared historically with how you are presently being paid for your pigs. Also, to the extent that a new packer or your existing packer may be presenting new offerings to choose from, you may wonder whether you would be better off with one alternative over another.

Fortunately, there is a way you can make these comparisons and analyze various contract alternatives to help inform decisions about how to negotiate with a new packer or renegotiate with your existing packer. As an example, you might compare two different offerings to see how they would have stacked up against each other in past years. In addition to providing a historical price comparison, this would also allow you to measure basis variance between the two in order to help gauge whether one contract may have been more favorable than another. We can look at a specific example comparing the difference between 90% of cutout for instance against the Western Corn Belt plus $5.00 to see how these two payment formulas would have differed historically over the past five years.

Figure 1 shows the comparison of these two price series over the past year. You will notice that the contract based off 90% of cutout is currently higher than the WCB plus $5.00 contract by $2.20/cwt. ($66.65 versus $64.45). As a result, it would be more favorable to deliver pigs in the spot market against the contract priced off of the cutout rather than the WCB contract. You may also notice though in the comparison of the two price series that up until quite recently, it was actually much more favorable to be priced off of the WCB contract compared to the cutout formula, in some cases by almost $13/cwt.

There were other times however, such as earlier this spring and particularly last fall, when it was significantly better to have been priced off the cutout contract relative to the WCB formula. In addition, you can see that there has been more variance in the past year with the WCB contract price series than the cutout contract series. While both were priced very closely together at around $88 last summer, the lows in the WCB plus $5.00 series show much deeper troughs while conversely, the recent high has also been much more of a premium as compared to the 90% of cutout series.

FIGURE 1. 90% OF CUTOUT VERSUS WCB + $5.00



We can also look at the historical variance of the two price series by comparing both price and basis in the following table of Figure 2. This comparison measures current values against averages over the past 1, 3 and 5 years of history. Here again, we can see that being priced off 90% of cutout is currently more favorable than having a contract based on WCB + $5.00, with both the 1 and 3 year averages showing the cutout contract to likewise be superior. However, a longer term view taking a 5-year average shows the price of WCB +$5.00 to be slightly higher by about $0.60/cwt.

FIGURE 2. 90% OF CUTOUT VERSUS WCB + $5.00

Contract	Last Value	1 Year Avg	3 Year Avg	5 Year Avg
90% of Cutout	**$66.65**	$70.77	$72.45	$78.67
WCB + $5.00	**$64.45**	$68.37	$68.91	$79.25

Contract	Last Value	1 Year Avg	3 Year Avg	5 Year Avg
90% of Cutout	**$6.39**	$2.00	$4.06	$0.39
WCB + $5.00	**$4.20**	$-0.40	$0.52	$0.97

These comparisons can also be shown visually in graphs with some interesting observations. Note that the previous chart comparing the past year of price performance indicated more variance in the WCB price series versus that of the cutout series. While this has been true over the past year, the basis history reveals something different. Figures 3 and 4 show the five-year basis ranges for both the WCB + $5.00 versus 90% of cutout, respectively. In both cases, the CME May Lean Hog futures contract has been excluded from the basis calculations. You will notice that the range of basis for the WCB + $5.00 price series has been $29.51/cwt. over the past five years, with a maximum value of $13.22/cwt. positive to $16.29/cwt. negative. Conversely, the range of basis for the 90% of cutout series has been wider at $44.52/cwt. during the same time interval, with a maximum value of $24.41/cwt. positive to $20.11/cwt. negative. It may be misleading therefore to conclude that you would be assuming more risk with the contract based off the WCB + $5.00, despite the relative price performance of each during the past year.

FIGURE 3. WCB + $5.00 FIVE YEAR BASIS RANGE

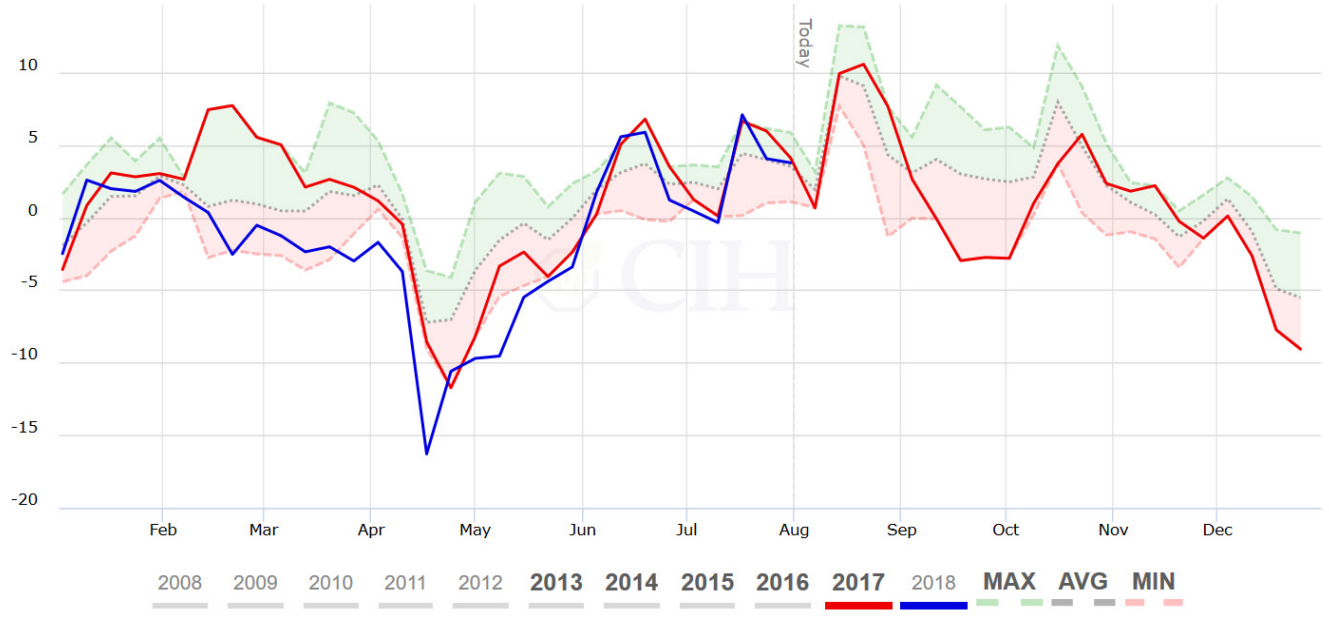
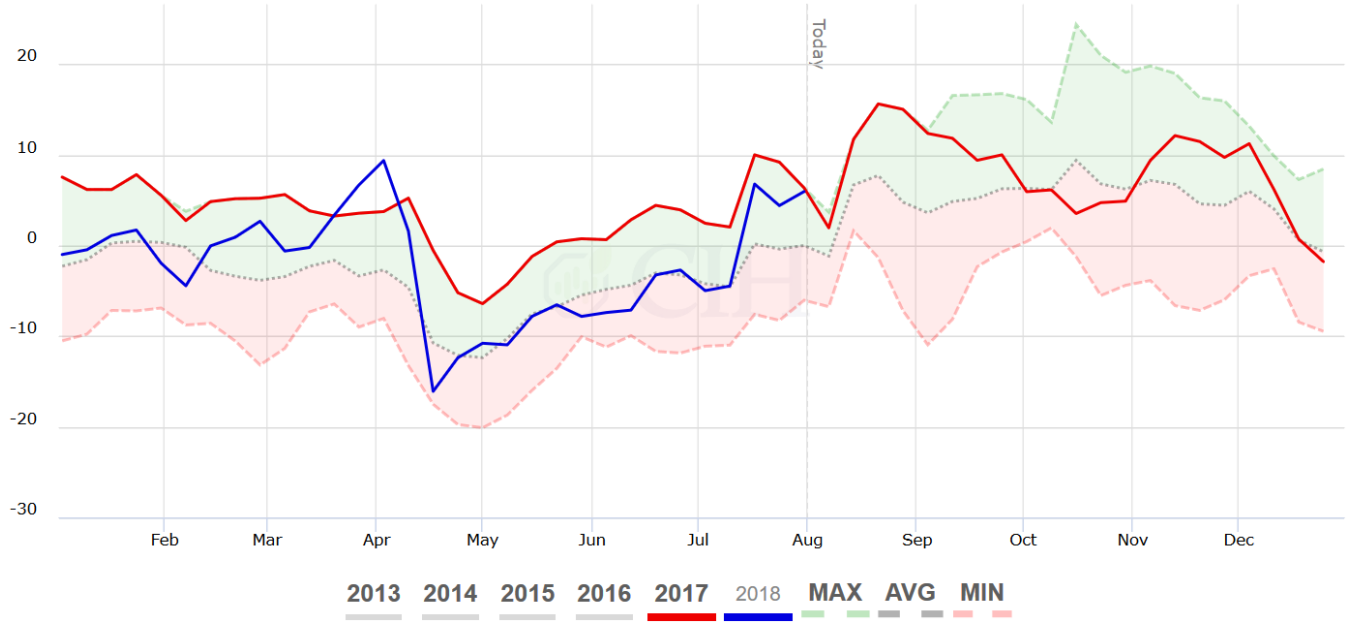


FIGURE 4. 90% OF CUTOUT FIVE YEAR BASIS RANGE



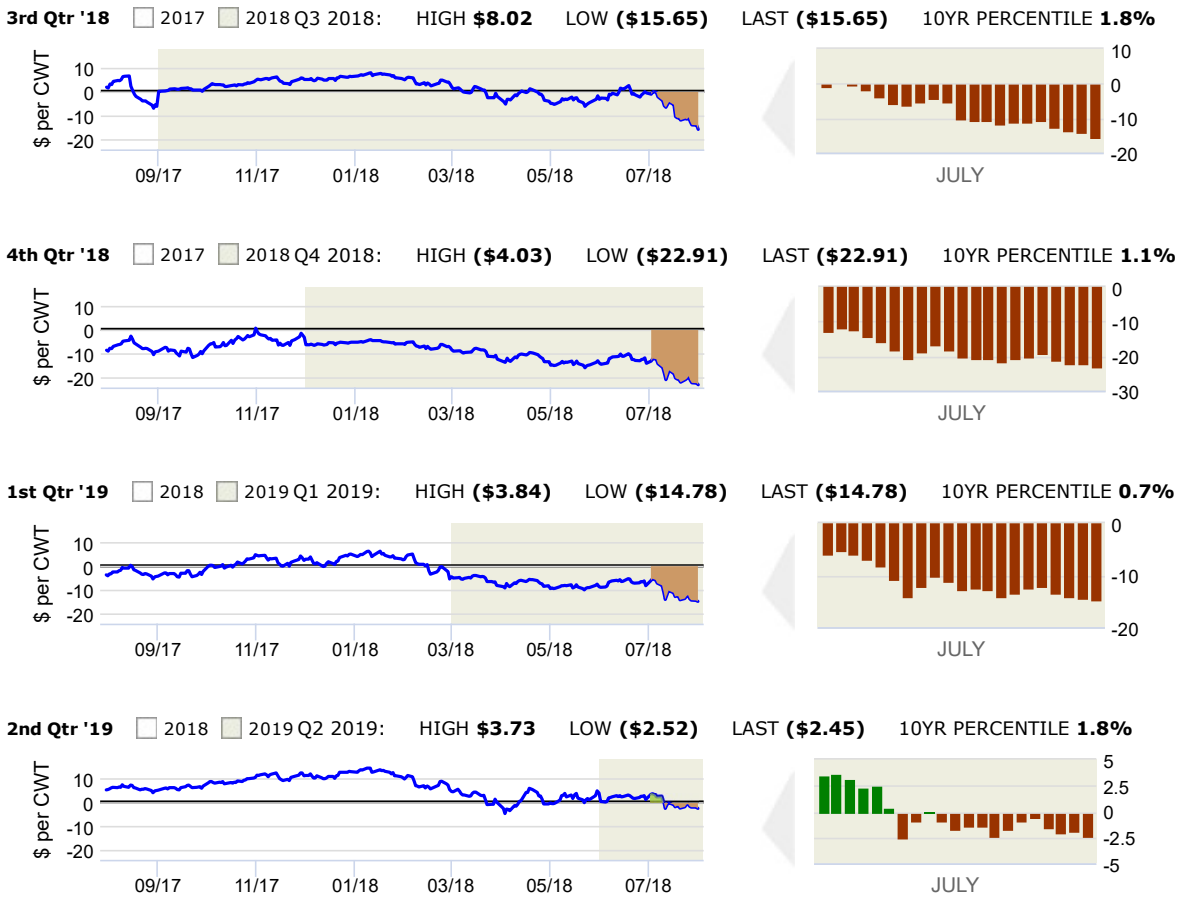
Another useful feature of being able to compare contracts side by side is to help with anticipating kill checks upon delivery. In addition, a producer may have more than one type of contract with the same or different packers. To the extent that the producer has some flexibility with their delivery schedule, they may find it advantageous to channel their deliveries to maximize the value of their hogs in the spot market. As an example, a producer with existing contracts priced off the comparison in this example would have an incentive to market as many hogs as possible right now against the cutout contract before delivering against the WCB contract. This could add incremental value to their marketings by maximizing the basis differential between the two pricing mechanisms.

It should be noted that the comparisons used in this example are presented for illustration purposes only, and are not meant to replicate any specific packer contract offerings. These examples are also not being presented to endorse one type of pricing mechanism over another. You should understand the exact features of any packer offering before making specific comparisons between contracts in order to draw your own conclusions on which type of contract may be a good fit for your particular operation.

For more information on how these studies were created or for help understanding how to navigate packer contracts, please feel free to contact us directly. While much of the current hog margin landscape is beyond control, there are things that producers have more sway over. The ability to better understand and negotiate packer contract offerings is definitely something a producer can leverage to help increase revenue and mitigate losses in the present environment, and there are tools to help them in this process.

Hog Margin Watch: July

Margins deteriorated further during the second half of July on a combination of higher feed input costs and falling hog prices. Hog margins are hovering at some of their weakest levels in years, at or below the first percentile of profitability over the previous decade. Even margins in Q2 2019 are now projected below breakeven, with large losses evident from now through Q1 in the open market. Hogs continue to face pressure from concerns over an imbalance between supply and demand. With both China and Mexico enacting retaliatory tariffs on U.S. pork imports, there is concern that more pork will have to be cleared in domestic channels during the second half of the year that may be difficult for the market to absorb. USDA currently projects Q4 pork production to increase 6.3% compared to 2017, and both China and Mexico took a large share of total U.S. production between July and December last year at 1.2% and 7.0%, respectively. While the Chinese market for U.S. pork appears to be closed, demand destruction from Mexico is less certain. The peso has strengthened recently relative to the dollar, and even with the added tariff, lower prices compared to last year still make U.S. hams cheaper for Mexican buyers relative to 2017. A bigger issue is that domestic buyers aware of expectations for large production increases later this year appear to be dragging their feet on purchases and allowing inventories to draw down which is adding pressure to the market. Meanwhile, both the corn and soybean meal markets have moved higher recently on declining crop conditions and yield concerns with uncertainty over what USDA will report in the August WASDE. Our clients continue to focus on adjusting existing positions, looking at adding flexibility to feed hedges following the recent increase in price.



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.

Dairy Margin Watch: July

Dairy margins generally deteriorated over the second half of July, as rising feed costs more than offset higher milk prices. With the exception of spot Q3, margins are projected positive and above average though based on the previous decade. While the milk market has recovered recently, gains have been modest with limited features to provide much direction. June milk production totaled 18.3 billion pounds according to USDA, up 1.3% from May and 1.2% higher than last year. Most of the increase resulted from productivity gains, with June production per cow totaling 1,943 lbs., up 1.2% compared to 2017. The cow herd has declined 4,000 head since the start of the year to 9.404 million which is unchanged from last year. Monthly dairy cow slaughter has been robust, with June's slaughter of 237,500 cows up 0.3% from a year ago and the second highest for June since 2000. For the first half of 2018, dairy cow slaughter has run 4.9% above last year and the strongest since 2013. The monthly Cold Storage report showed U.S. cheese inventories reaching a fresh record high of 1.39 billion pounds at the end of June, up 7 million from May and slightly higher than the May-June build over the past five years. Cheese stocks were also up 5.8% compared to last year. Butter inventories dropped 2.1 million pounds in June after reaching a nearly 25-year high in May, although the drop was less than the 4.5 million average decline between May and June over the past five years. June stocks were also up 8.5% from last year and the highest June inventory since 1993. The corn market has increased recently on falling crop conditions and yield concerns, with uncertainties over what the USDA's August WASDE report will reveal. Our clients continue to focus on adjustments to existing positions, particularly adding flexibility to feed hedges while strengthening milk hedges.

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.

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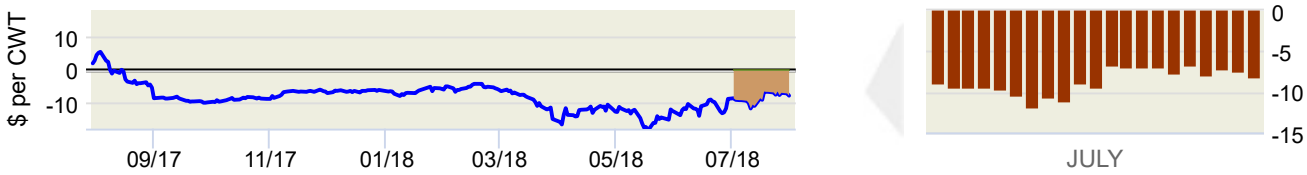
Beef Margin Watch: July

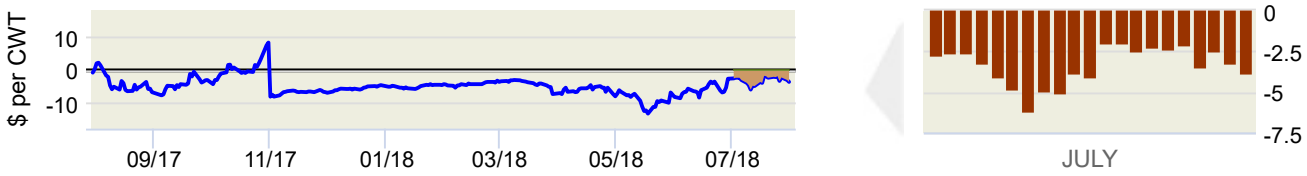
Beef margins declined over the second half of July as higher projected feed costs more than offset an improvement in cattle prices. With the exception of the marketing period against the February Live Cattle contract which is projecting a breakeven, cattle feeding margins and forward crushes remain negative and below average from a historical perspective. Cattle prices are drawing support from ideas that the growth in the beef cow herd is starting to moderate as we reach the end of the current expansion cycle. Beef cow slaughter through the middle of July has increased 11% over last year, although most of this increase is coming from non-fed slaughter with more cows coming to market. USDA released the July 1 Cattle Inventory report, which showed all cattle and calves coming in 1% or 1 million head higher than 2017 at 103 million. The dairy herd was stable while the beef cow herd that calved totaled 32.5 million head, up from 32.2 million last year. The number of heifers held for beef cow replacement dropped 2.1% to 4.6 million head, with heifers not intended for replacement and making their way through slaughter channels climbing nearly 3%. While moderating growth, the calf crop is still larger than last year, up nearly 2%, and continued modest growth may be noted in the January report as well. The corn market has increased recently as deteriorating crop conditions and yield uncertainties ahead of the USDA's August WASDE report has put some risk premium back in the market. Our clients continue to focus mainly on adjustments to existing positions with limited forward margin opportunities due to negative crushes. Adding flexibility to feed hedges has been a focus following the recent price recovery.

Live Cattle Marketing Periods:

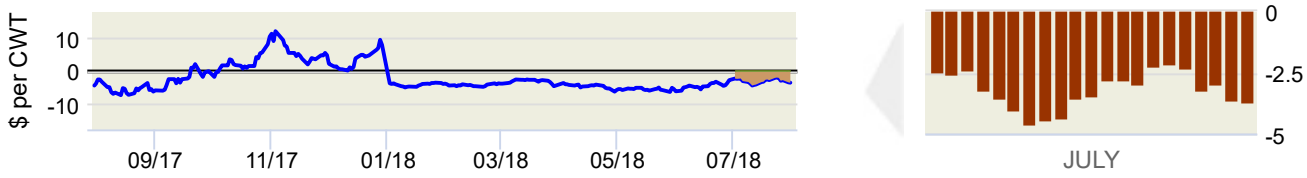
Aug '18 2017 2018 Aug 2018: HIGH **$5.37** LOW **($18.63)** LAST **($8.03)** 10YR PERCENTILE **29.5%**



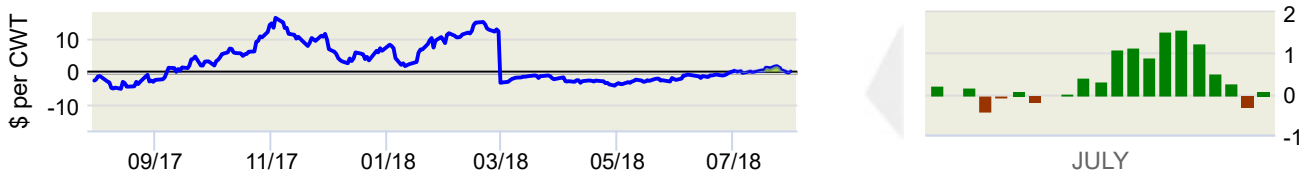
Oct '18 2017 2018 Oct 2018: HIGH **$8.23** LOW **($13.41)** LAST **($3.81)** 10YR PERCENTILE **47.6%**

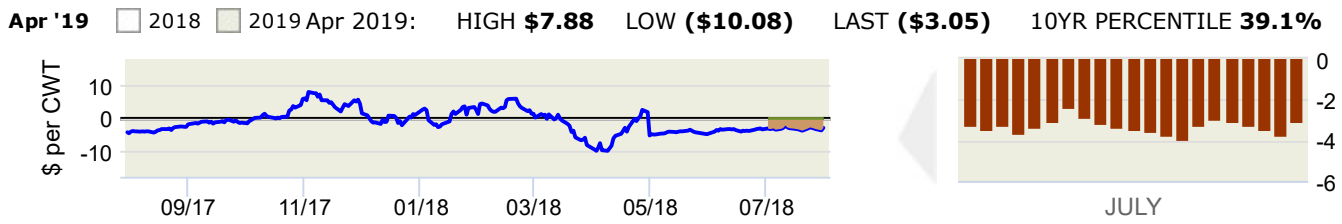


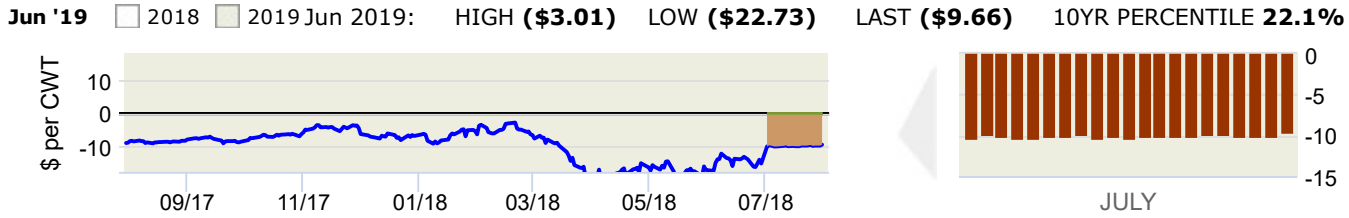
Dec '18 2017 2018 Dec 2018: HIGH **$11.96** LOW **($7.49)** LAST **($3.72)** 10YR PERCENTILE **44.3%**



Feb '19 2018 2019 Feb 2019: HIGH **$16.41** LOW **($5.29)** LAST **$0.08** 10YR PERCENTILE **68.7%**







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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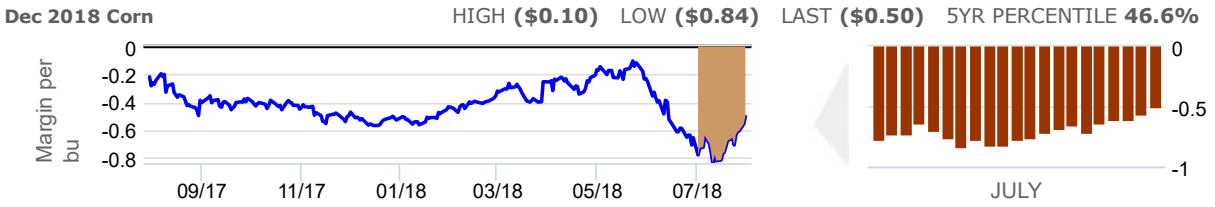
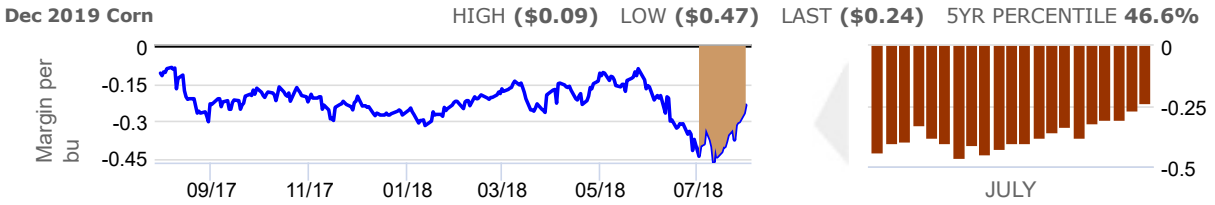
Corn Margin Watch: July

Corn prices and margins were well above recent lows the past two weeks, and finished at highs for the month. There has not been any concrete progress on trade resolutions on any of the varied fronts, but there definitely has been a cooling of rhetoric on two of three fronts. A letter to President Trump from Mexican President-elect Andres Manuel Lopez Obrador, seeking "a common path on resolutions on trade, immigration, economic development and security" jumpstarted hopes for a NAFTA deal in short order. A meeting between President Trump and EU President Jean-Claude Juncker also demonstrated a tension tone down. The meeting yielded nothing but a commitment to work toward a future framework for a potential trade agreement, certainly delaying further escalations for the near term. U.S. and China relations are another story. While whispers of some possible progress were in the air, the U.S. announced a change from 10% to 25% on an earlier proposal to tariff an additional $200 billion dollars of Chinese imports; the final determination will take time to work out, allowing for hopes of further talks. In the meantime, the USDA announced a $12 billion dollar program to mitigate farmers partially from the pains of the trade war, details of which are forthcoming. Corn conditions remain elevated at the 72% good to excellent levels, even as some heat has crept into the equation. U.S. exports of old crop corn have remained strong in spite of the current trade picture. Looking forward the corn market is certainly ready for concrete NAFTA and China solutions, as well as the August release of the NASS new crop yield projection.



The estimated yield for the 2018 crop is 186 bushels per acre and the non-land operating cost is $544 per acre. Land cost for 2018 is estimated at $222 per acre [1]. Basis for the 2018 crop is estimated at $-0.25 per bushel.



The estimated yield for the 2019 crop is 186 bushels per acre and the estimated operating cost is $544 per acre. Land cost for 2019 is estimated at $222 per acre [1]. Basis for the 2019 crop is estimated at $-0.2 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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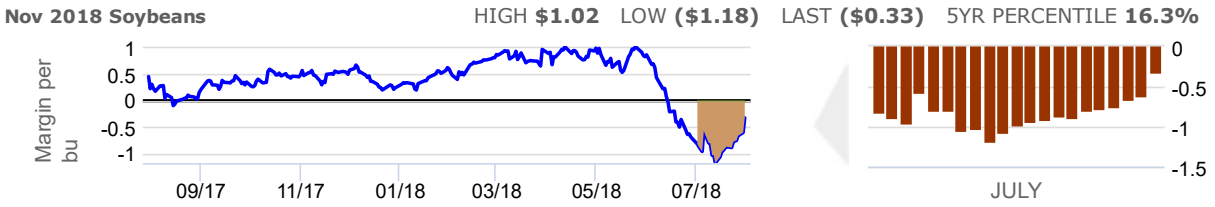
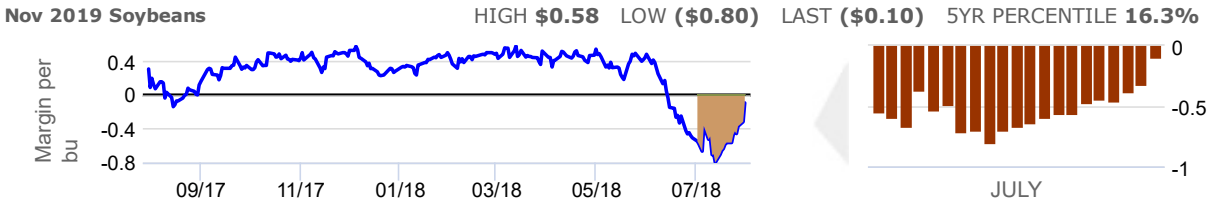
Soybeans Margin Watch: July

Soybean prices and margins got off the mat the past two weeks and finished at monthly highs. The nearly full effect of the Chinese tariff on U.S. soybean imports appears in the market price as U.S. sourced beans hover at a 20% to 25% discount to Brazilian beans. A meeting between President Trump and E.U. President Jean-Claude Juncker yielded a commitment to work on trade disagreements down the road. President Trump backed off talk of tariffs on European autos and parts, and he said he received assurances of additional E.U. purchases of soybeans; however, his E.U. counterpart rebuffed that. Nonetheless, future talks are to be coordinated to work out a framework for better trade relations. Last year the E.U. imported roughly 13 million metric tons of beans, with the U.S. supplying around 4 million or close to a third of the total, however even if the U.S. were to capture 100% of the imports, there would still be a large gap from losing the Chinese bean market. In addition, the E.U. purchases non-GMO soybeans, a reality that is unlikely to change down the line. The USDA rolled out a $12 billion plan to mitigate farmer loses due to the trade war, but the details have yet to be released. The U.S.-China relationship continues to sour, particularly in light of the latest U.S. proposal, going from 10% to 25% tariffs, on an additional $200 billion of Chinese imports. Some believe the move to be a negotiation tactic to kick start more talks. While old crop beans have shipped near pace needed to reach the USDA expectation, a resolution before new crop beans normally move to China is critical. U.S. bean conditions remain in the 70% good to excellent area, with all important August pod fill ahead.



The estimated yield for the 2018 crop is 59 bushels per acre and the non-land operating cost is $319 per acre. Land cost for 2018 is estimated at $222 per acre [1]. Basis for the 2018 crop is estimated at $-0.35 per bushel.



The estimated yield for the 2019 crop is 59 bushels per acre and the estimated operating cost is $319 per acre. Land cost for 2019 is estimated at $222 per acre [1]. Basis for the 2019 crop is estimated at $-0.35 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.

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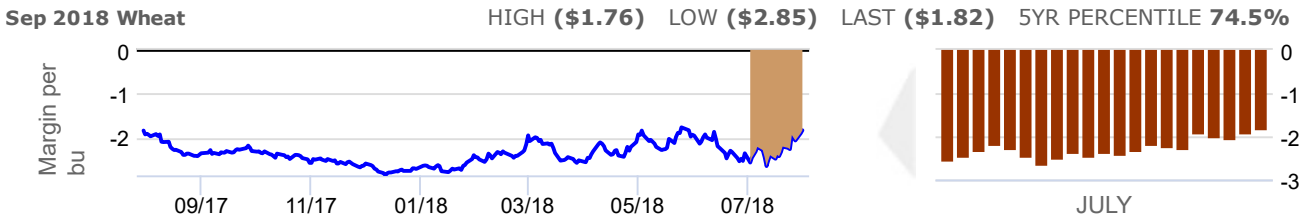
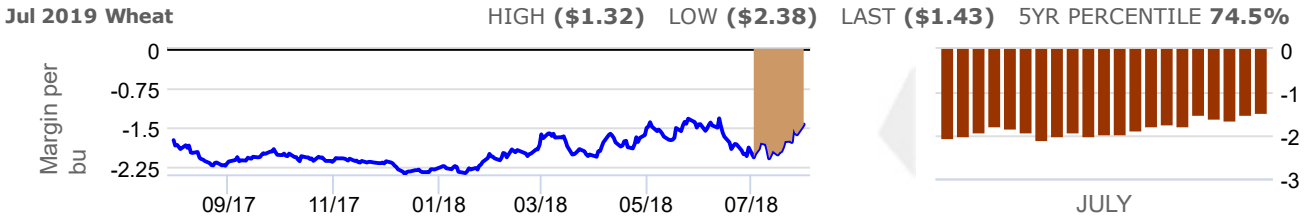
Wheat Margin Watch: July

Wheat prices and margins were stronger the past two weeks as weather issues have drawn down global production projections. The E.U. and Russia are suffering the most. Russia's latest production estimate is close to 20 million metric tons below last year, while the E.U. is off 17 million from projections made in June. Back home the U.S. spring wheat conditions are off the charts with ratings hovering near 80% in the good and excellent categories. Countering these top shelf ratings, a recent Wheat Quality Council spring wheat crop tour found average yields at 41.1 bpa, while ahead of last year's 38.1, but notably short of their 5-year average of 45.4 bpa, bringing into question the robust conditions. The wheat market points to the August NASS yield projection to arbitrate the differences.



The estimated yield for the 2018 crop is 71 bushels per acre and the non-land operating cost is $344 per acre. Land cost for 2018 is estimated at $157 per acre [1]. Basis for the 2018 crop is estimated at $-0.3 per bushel.



The estimated yield for the 2019 crop is 71 bushels per acre and the estimated operating cost is $344 per acre. Land cost for 2019 is estimated at $157 per acre [1]. Basis for the 2019 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.