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INSIDE THIS ISSUE

Dear Ag Industry Associate,

The USDA released several highly anticipated reports this month which had a noticeable impact on margins. The Prospective Plantings report detailed initial estimates for corn and soybean acreage this spring based on a survey of producers. Corn plantings in particular were a bearish surprise coming in well above market expectations. Meanwhile, the Quarterly Stocks report revealed that supplies are plentiful for both corn and soybeans, and will likely grow this coming season with normal weather and average yields. USDA also released their Quarterly Inventory report for Hogs and Pigs which likewise will provide more visibility on pork supply for the near future. The current Margin Watch reports detail how these releases from USDA have impacted the profitability outlooks for the crop, hog, dairy and beef sectors as we head into the spring planting season.

Our feature article this month revisits a topic that we have examined previously in the dairy sector. The Margin Protection Plan or MPP program is now entering its second full year, and the first milk margin pay period calculation for 2016 has just been determined. We explore some of the issues with the program including how indemnity payments are calculated for those producers who elected coverage under the plan and how effective MPP has been in helping to protect margins over the past year. While it remains early in the program's tenure, it would appear that some initial concerns with MPP are bearing out in that it may not be the best fit for all operations. In particular, differing risk profiles with respect to feed costs and non-feed expenses may limit MPP's efficacy in protecting actual margins at the farm level.

Sincerely,

Chip Whalen
Managing Editor

Managing Editor, Chip Whalen is the Vice President of Education and Research for CIH, a leader in Margin Management. He teaches margin seminars throughout the country and can be reached at cwhalen@cihedging.com

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MPP - Revisited

In October, 2014 we featured an article in Margin Manager titled, "The Dairy Margin Protection Program – Is It Right for Me?" At the time, we were writing about the features of this new risk management program for dairies that was part of the Agricultural Act of 2014 to provide a safety net during periods of catastrophic industry-wide losses such as were experienced in 2009 and 2010. There were many questions at that time about whether or not the program was a good fit for any particular dairy, how the costs of the program compared with using exchange-traded equivalents, and if a dairy producer should sign up as well as what coverage level to elect. With the program now entering its second year (technically third if you count 2014), we thought it would be a good opportunity to revisit how MPP has worked so far with 2015 now finished and the first 2-month calculation for indemnity payments having just concluded for 2016.

The following table summarizes the MPP results for both 2015 and the first two months of 2016, reflecting the component prices for corn, alfalfa hay, soybean meal and all milk in the margin calculation for each calendar month, along with the milk margin pay period composite price for each 2-month averaging period:

Month	Pay Periods	Corn ($/bu)	Alfalfa Hay ($/ton)	Soybean Meal ($/ton)	All Milk ($/cwt)	Final Feed Costs for MPP-D ($/cwt)	Milk Margin Above Feed Costs ($/cwt)	Milk Margin /pay Period*
2016								
Feb	1	3.57	142.00	273.61	15.70	7.78632	7.913670	8.00928
Jan		3.66	147.00	279.56	16.10	7.99511	8.104886	
2015								
Dec	6	3.65	150.00	289.78	17.20	8.10060	9.099397	9.55705
Nov		3.60	150.00	308.60	18.20	8.18529	10.01471	
Oct	5	3.67	156.00	327.97	17.70	8.48496	9.21504	9.08207
Sep		3.68	157.00	333.62	17.50	8.55091	8.94909	
Aug	4	3.68	159.00	357.85	16.70	8.75641	7.94360	7.69510
July		3.80	169.00	375.71	16.60	9.15341	7.44659	
June	3	3.58	178.00	335.03	16.90	8.74170	8.15831	7.99534
May		3.62	192.00	320.23	16.70	8.86763	7.83237	
Apr	2	3.75	184.00	336.61	16.50	9.01788	7.48212	7.50415
Mar		3.81	172.00	357.83	16.60	9.07382	7.52618	
Feb	1	3.79	172.00	370.38	16.80	9.14461	7.65540	7.99554
Jan		3.81	174.00	380.02	17.60	9.26432	8.33569	

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The milk margin calculations for 2015 resulted in indemnity payments only getting triggered twice, during the March-April averaging period with a composite margin of $7.50415/cwt. and again in the July-August averaging period with a composite margin of $7.69510/cwt. While the composite margin calculation was technically below $8.00/cwt. during two other averaging periods in 2015 (Jan-Feb and May-June), it was only by a fraction of one cent and effectively did not trigger indemnity payments as a result. Even for the two times that the program did trigger a payment last year, only once was it barely able to cover the cost of the premium for the highest level of coverage, and that was only if you were insuring less than 4 million pounds of production. The table below from our last article revisiting MPP highlights this $0.475/cwt. premium for the first 4 million pounds of annual production:

What is MPP?

MPP is a new program from the government to provide dairy producers with catastrophic margin insurance. You can select a level of protection between $4 and $8 for different premiums based on a standard national Milk over feed cost calculation provided by the government. More details are available in our MPP white paper here: Dairy Whitepaper - MPP . The purpose of this page is to help you compare the MPP to your specific operation.

MPP Cost Table

To calculate MPP premium levels for your operation, enter your annual milk production 20000000 lbs, and desired coverage level 90 %

Protection Level	MPP Premium Below 4M	MPP Premium Above 4M	Your MPP Premium
$4.00	$0.000	$0.000	$ 0.000
$4.50	$0.010	$0.020	$ 0.018
$5.00	$0.025	$0.040	$ 0.037
$5.50	$0.040	$0.100	$ 0.087
$6.00	$0.055	$0.155	$ 0.133
$6.50	$0.090	$0.290	$ 0.246
$7.00	$0.217	$0.830	$ 0.694
$7.50	$0.300	$1.060	$ 0.891
$8.00	$0.475	$1.360	$ 1.163

Calculations are for a 20000000 lb yearly operation at 90% coverage.

Looking at this year, margins have come down substantially from where they were in the fall, however the composite margin for January and February will fail to trigger an indemnity payment with the average just above $8.00/cwt. The last time the 2-month average margin was close to the current calculation was during May-June of 2015. What you will notice from the first table though comparing then to now is that price levels for every component of the margin were generally higher than what they currently are in early 2016. The all-milk price was about $1.00/cwt. higher in the upper $16 range, alfalfa hay was as much as $50/ton higher last May at $192 while soybean meal was similarly about $50/ton higher than where it is presently. Corn prices have actually been quite steady over that time frame at least based upon monthly averages. This dichotomy exposes one of the potential problems with MPP as a risk management tool for dairy producers. Because the

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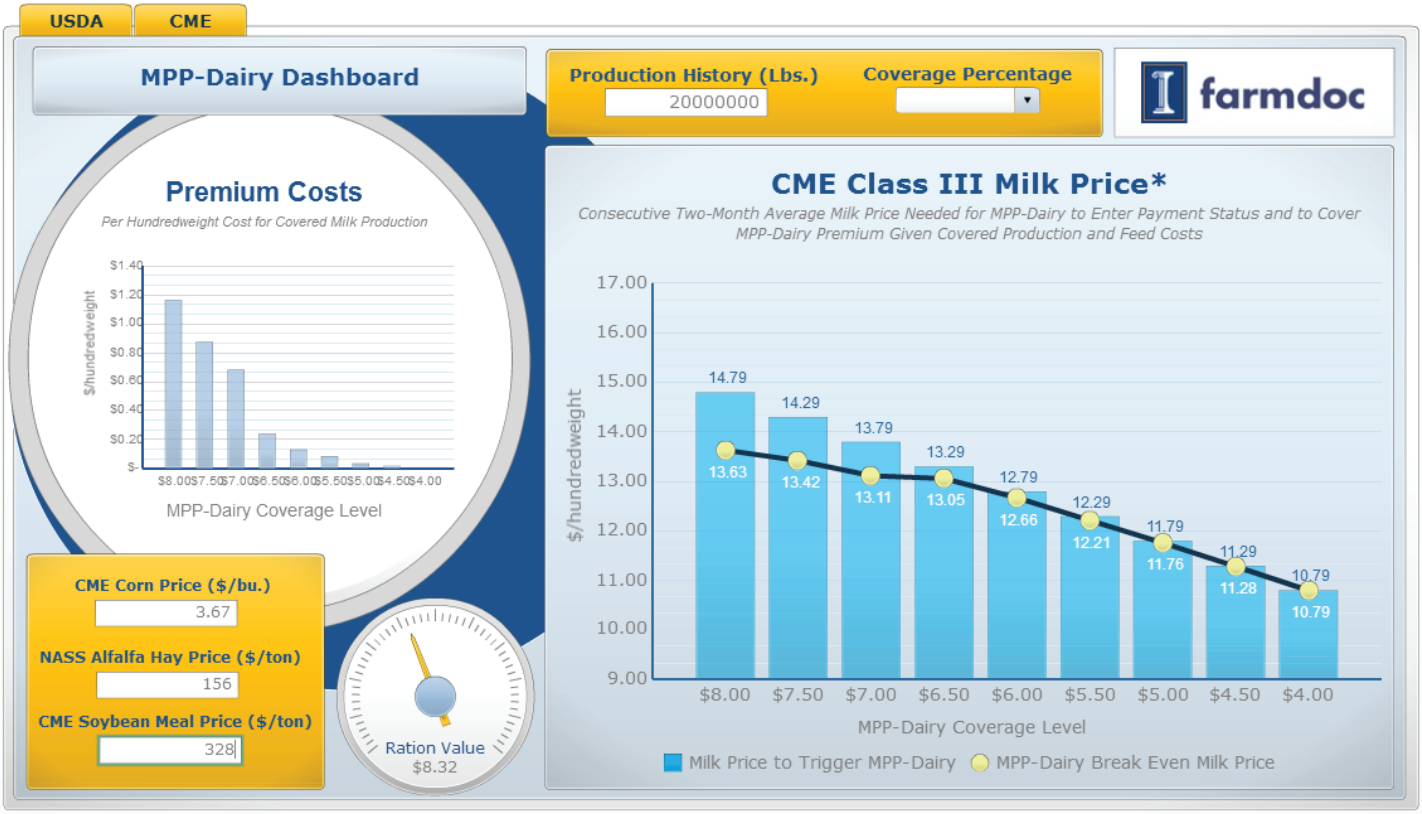
calculation is based on both feed costs and milk prices, it is not necessarily effective for dairies that produce their own feed or that have previously established a price for their feed in the local market.
Many dairies have used a tool published by the Program on Dairy Markets and Policy that calculates the average CME Class III Milk price needed to trigger an MPP indemnity payment along with an MPP dairy breakeven milk price for a given feed cost matrix. Last year, the deadline to sign up for coverage in 2016 was extended to November 20 giving dairies extra time to evaluate the merits of the program, whether or not they wanted to sign up for coverage, and at what level they wanted to protect. Using this tool last November based on the average feed costs during the month of October would have implied higher all-milk prices to trigger an MPP payment than what currently exists today. The following 2 graphs compare the milk prices using the matrix of October feed prices to those of the most recent matrix in February. You will notice that the average CME Class III Milk price needed to trigger an MPP indemnity payment has dropped by $0.70/cwt. from $14.79 to $14.09 as a result of falling feed prices:

Calculation using October MPP Feed Prices:



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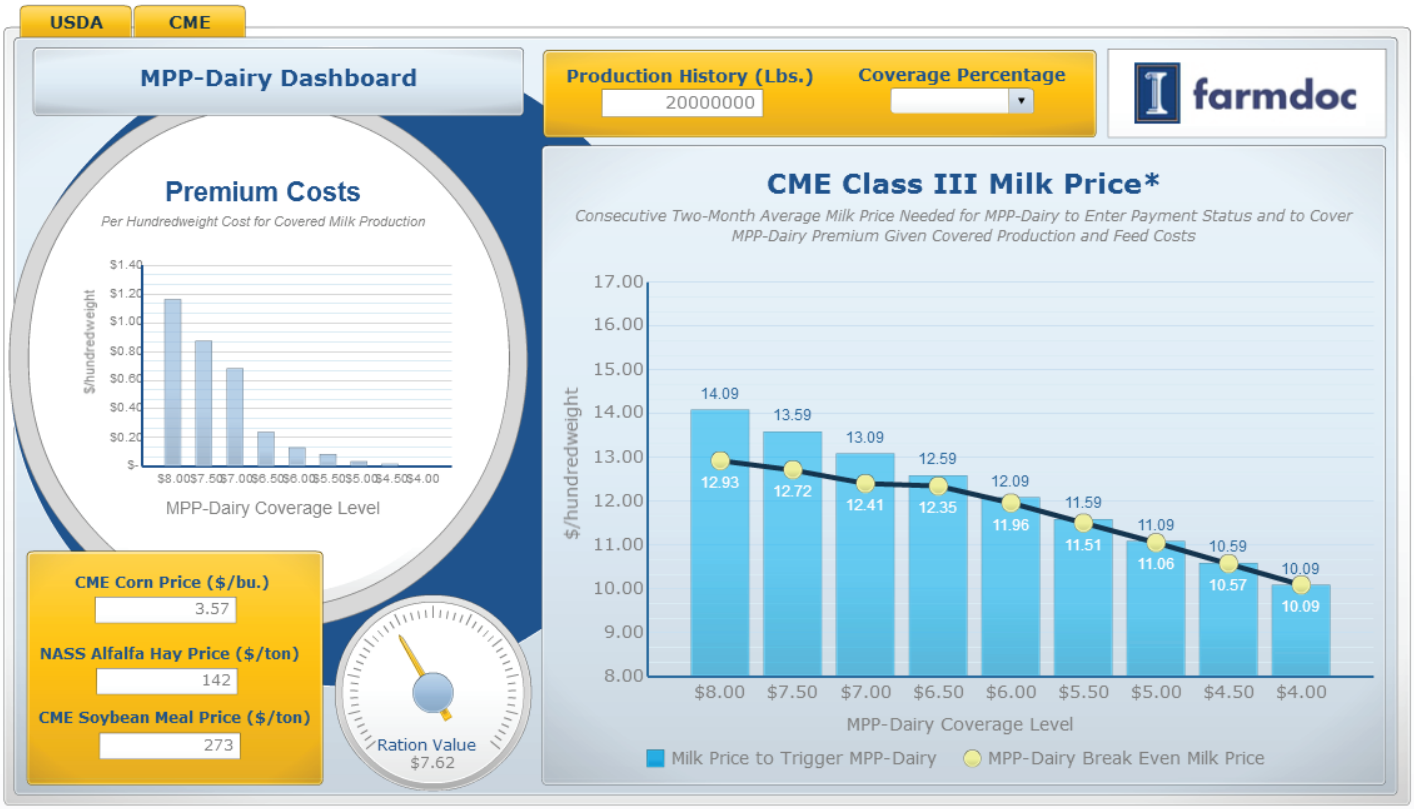
Calculation using February MPP Feed Prices:



Because of this dynamic, it may have been a fallacy of dairy producers to assume they had a “floor” on their milk at a higher level when in reality that floor was contingent on feed costs holding steady. This therefore would have hurt a dairy utilizing MPP whose feed costs were already covered last fall, but was effectively open to milk prices on the open market. Another topic we touched on in our initial article and when revisiting MPP last year was that the program was really designed as a catastrophic insurance policy to protect dairy producers during extreme, industry-wide negative margin scenarios. While dairy margins have been declining back to the minimum threshold necessary to trigger indemnity payments under MPP, the reality is that most dairy producers are already underwater with margins below breakeven. Below is a graph illustrating current margins for a model dairy operation that we have used in the past to demonstrate the efficacy of MPP:

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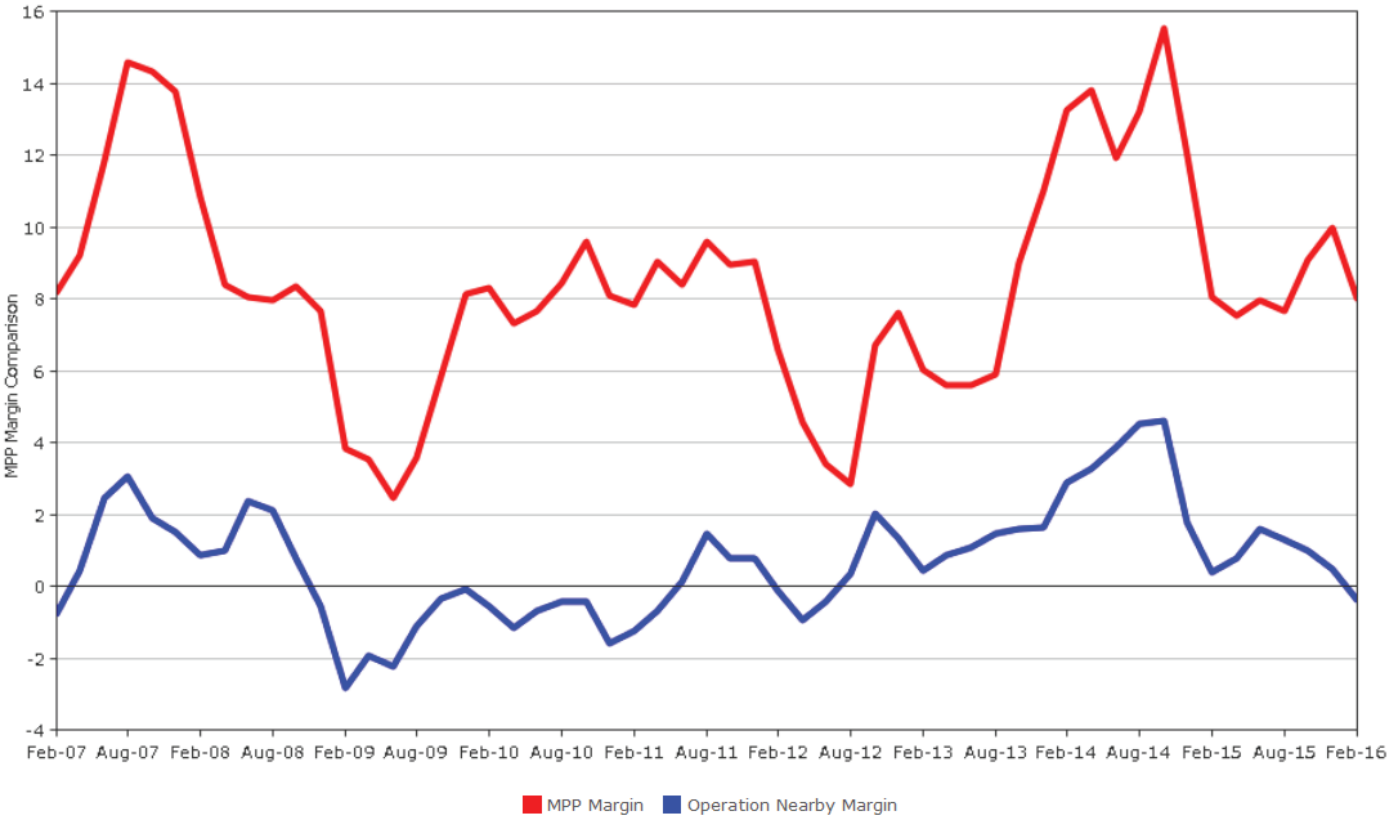
MPP vs Operation Margin: Historical Comparison

The historical relationship between the MPP margin and your rolling nearby margin is below. Calculations of the MPP margin do not include non-feed costs while the calculations for your operation's margin do.



Moreover, the forecast for forward margins based upon current futures prices also suggests that payments under MPP may be limited to all but the highest levels of coverage despite the fact that actual farm margins may be showing losses through at least the first half of the year. While outcomes may obviously change based on how both milk prices and feed costs fluctuate over the next few months, the bottom line is that most dairies will likely not see much benefit from MPP for the foreseeable future given the current dynamics in the market:

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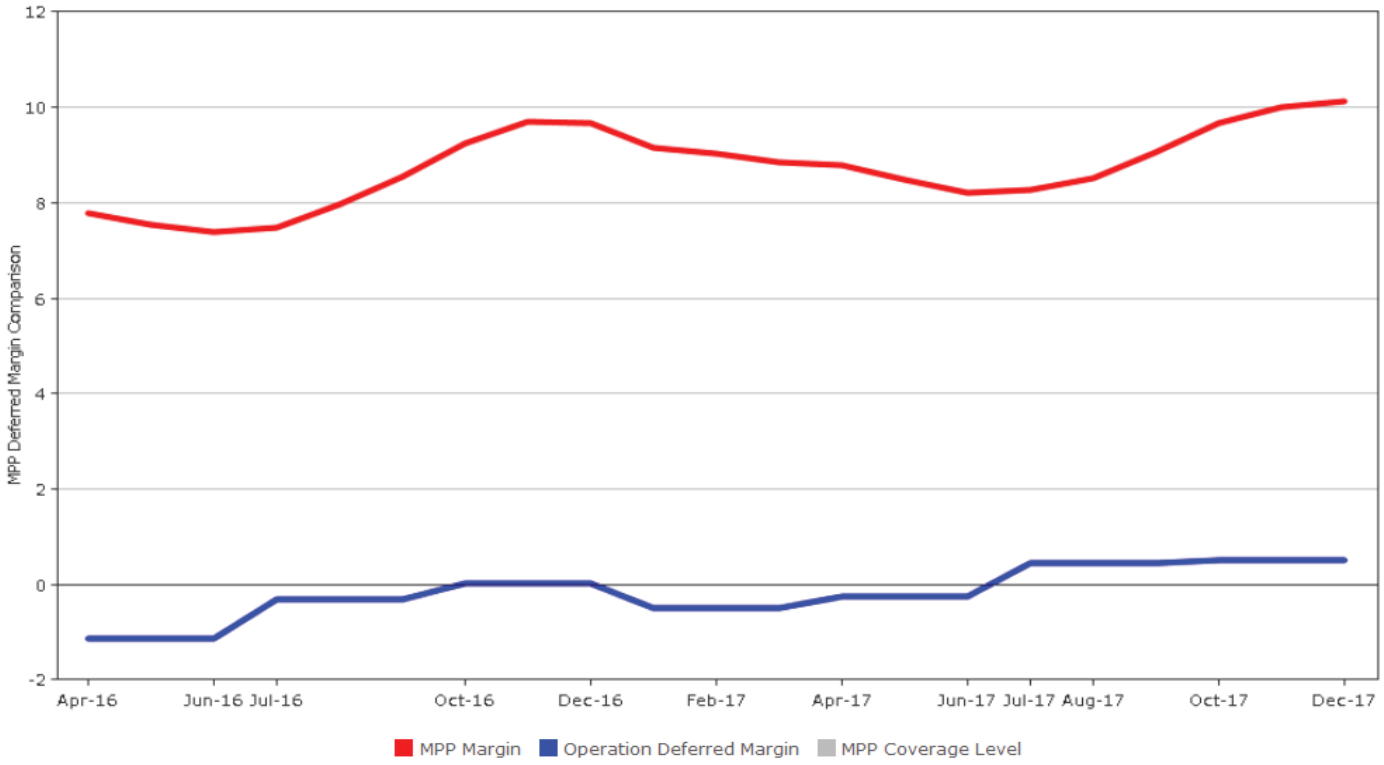
MPP vs Operation Margin: Deferred Estimates

MPP margin values and payouts are calculated based on a mix of nearby NASS and AMS cash prices, however, it is possible to establish a relationship between these nearby cash prices and futures prices so that we can use deferred CME futures prices to anticipate future MPP margins. Charted below is a graph estimating future MPP margins which used a regression of Class III milk, Class IV milk, a seasonal butterfat premium, CME Corn, and CME Meal to estimate MPP margins. These estimates may differ from those provided by the USDA which can be found here: USDA MPP Decision Tool. Your operation's projected deferred margins are also plotted as a reference.



While it remains early in the MPP program and much can change over the next few years through 2018, initial results seem to indicate what had been expected from the onset. MPP may not be the most effective means of protecting margin risk for dairy producers. Because high thresholds of margin protection under the program are costly compared to exchange-traded alternatives which only address a breakeven scenario for many producers at best, it may be better to supplement MPP coverage at lower thresholds of protection with other contracting through local counterparties or the exchange. Moreover, because not all producers will have the same degree of risk exposure with regards to feed, MPP may further be limited in its efficacy to protect milk prices in a sharply falling market such as we have experienced since last fall. Although MPP is certainly one tool that may be considered as part of a dairy's risk management program, it should probably be used in conjunction with other alternatives in a comprehensive margin management plan.

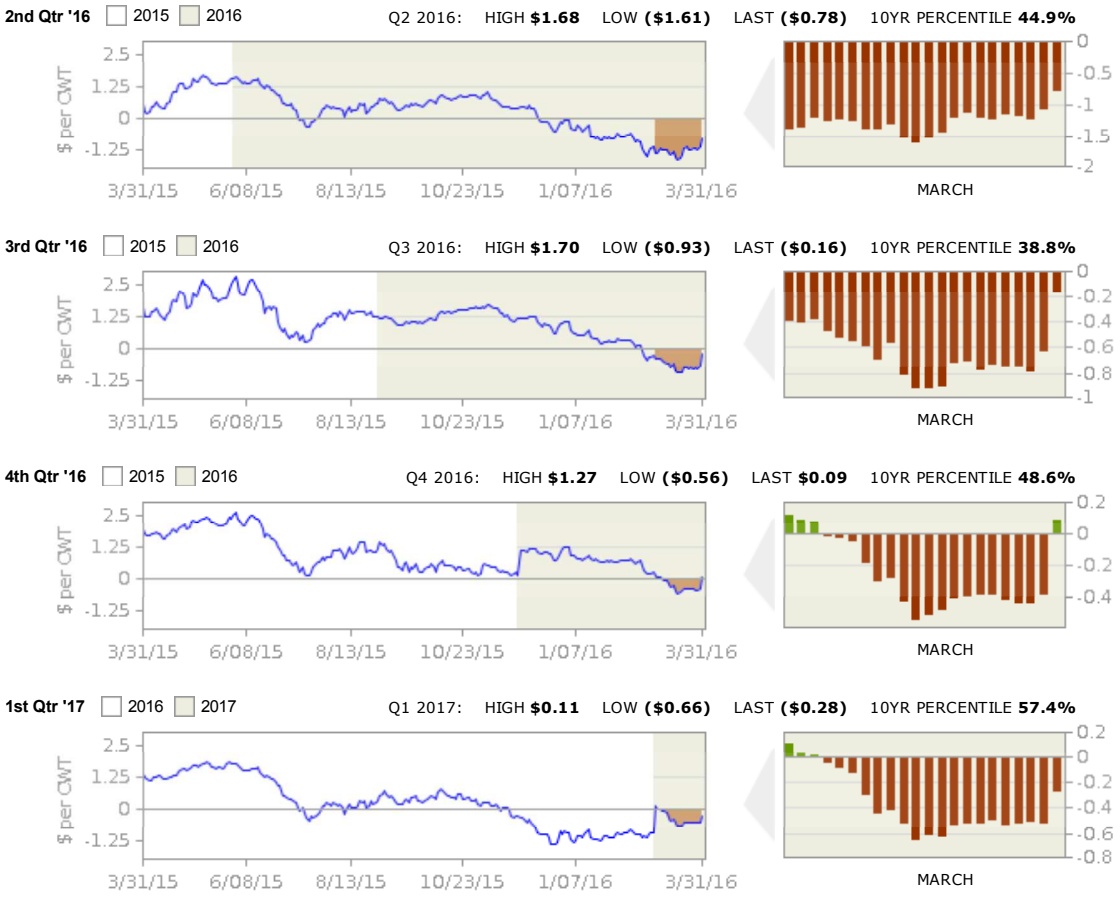
Hog Margin Watch: March

Margins were again mixed to finish off the month of March, with the spot Q2 period weaker while Q3 improved slightly and deferred margins in Q4 forward basically flat. Nearby margins are still historically attractive, above or near the 70th percentile of the previous 10 years while forward margins beyond that are negative and below average from a historical perspective. USDA released the Quarterly Hogs and Pigs report on March 25 which was relatively neutral for the main three inventory categories. All Hogs and Pigs as of March 1 were reported up 0.3% from last year at 67.644 million head. The kept for breeding figure of 5.98 million head was even with a year ago when the market was expecting a 0.6% increase from 2015. The breeding herd was actually below that of December 1 and implies a significant reduction in gilt retention during the past quarter compared to a year ago. Some of the bigger surprises in the report included the pigs saved per litter during Dec-Feb at 10.3 head, up just 0.7% from last year and down 2.2% from the previous quarter. Many attribute this to breeding issues last summer due to the semen extender problem. Another surprise included June-August farrowing intentions down 1.1% from last year which would imply fewer pigs coming to market at the end of the year into early 2017. USDA also released the Quarterly Grain stocks and Prospective Plantings on March 31. The corn figures in particular were deemed negative, with projected acreage of 93.601 million up 5.6 million from last year and 3.55 million above the average trade forecast. Moreover, corn stocks as of March 1 at 7.808 million bushels though in line with estimates would be the highest ever for the midpoint of the crop year. Our clients have benefited from recent adjustments to existing positions, particularly adding flexibility to corn hedges. Strengthening these positions following the big drop in price is now a focus.

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: March

Dairy margins improved significantly over the second half of March following a recovery in milk price coupled with a sharp drop in feed costs, particularly for corn. Despite the improvement however, forward margins remain negative in all but Q4 where they are only projected slightly above breakeven at present. USDA reported monthly milk production for February up 1% from 2015 when adjusting for Leap Year at 16.9 billion pounds. While the report indicates continued expansion in U.S. milk production, change may be on the horizon with extremely low milk checks arriving in the mailbox likely encouraging operational changes on the farm over the medium term. Monthly Cold Storage figures also indicated a continued build in cheese and butter stocks, with end of February butter stocks of 235.5 million pounds up 22.6% from January and 31.5% higher than last year. Total cheese stocks on February 29 were reported at 1.18 billion pounds, 0.3% above January and up 10.8% from 2015. USDA also released the Quarterly Grain Stocks and Prospective Plantings reports at the end of the month. The figures for corn were particularly bearish with projected acreage of 93.601 million up 5.6 million from last year and 3.55 million above the average trade guess. While March 1 corn stocks of 7.808 million bushels were within expectations, they would represent the highest stocks on record for the midpoint of the marketing year. Our clients have benefited from recent adjustments to existing positions, including adding upside flexibility to milk hedges as well as downside flexibility to corn hedges. Following the recent price action in both markets, our consultants are now working with clients to take advantage of these adjustments to improve upon forward margin opportunities.

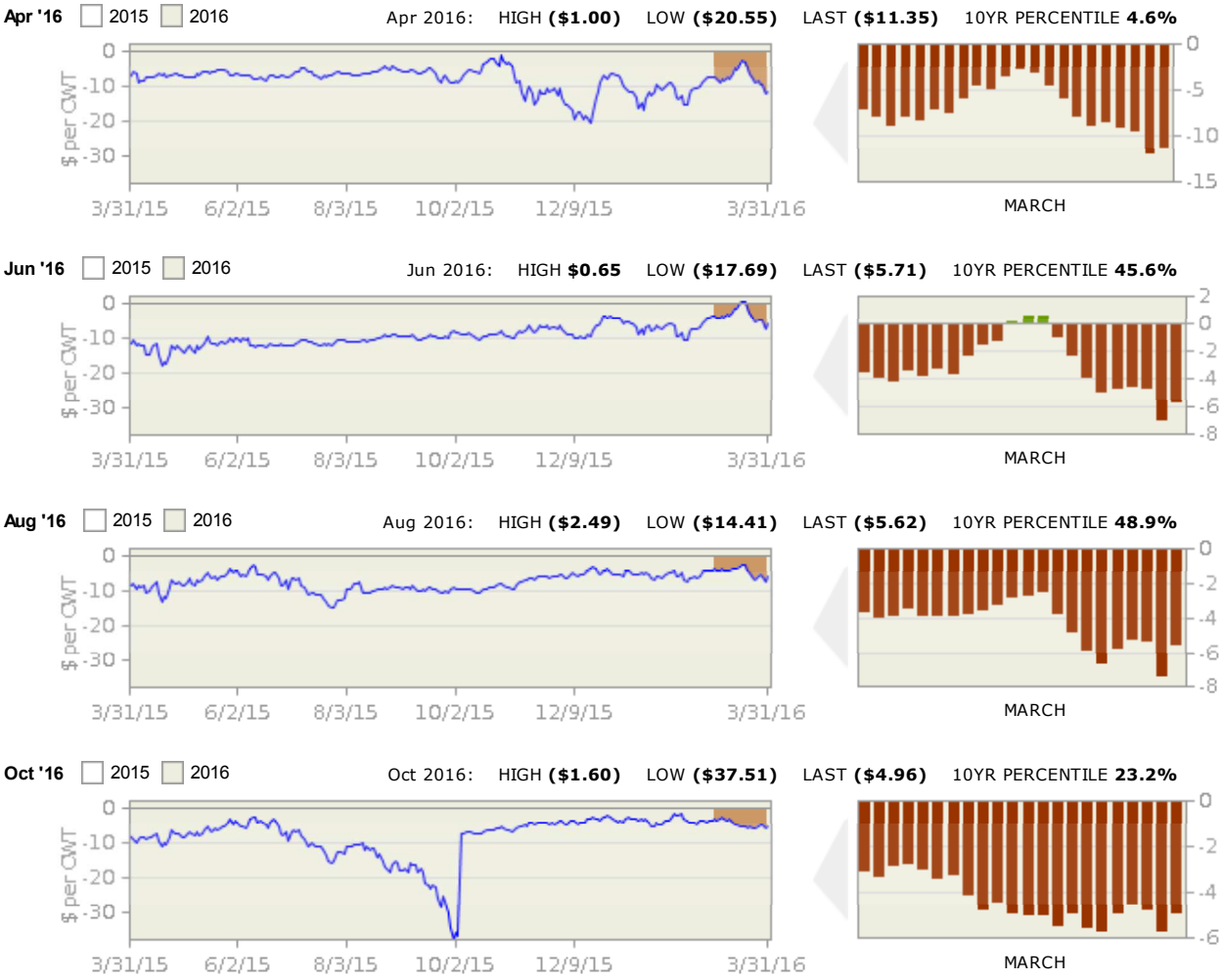


The Dairy Margin calculation assumes, using a feed price correlation model, that for a typical dairy 62.4 lbs of corn (or equivalent) and 7.34 lbs of meal (or equivalent) are required to produce 100 lbs of milk (includes dry cows, excludes heifers not yet fresh). Additional assumed costs include $0.90/cwt 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: March

Beef margins generally deteriorated since the middle of March with the exception of far deferred marketing periods where cattle have not yet been placed. A sharp drop in cattle prices more than erased the gain scored over the first half of the month, as well as the big decline in corn brought on by USDA's big Quarterly Grain Stocks and Prospective Plantings reports. USDA estimated corn acreage based on an initial survey of producers at 93.601 million which would be up 5.6 million from last year and 3.55 million acres above the average trade guess. March 1 corn stocks of 7.808 million bushels meanwhile would be the highest ever for the midpoint of the marketing year despite the fact that they came within expectations. The corn market dropped sharply following the news to post fresh life of contract lows in all trading months. Cattle prices have retreated following early month strength as some are beginning to question the resiliency of beef demand heading into spring. USDA's latest Cattle on Feed report showed the total number of cattle on feed March 1 at 10.77 million head, up 0.8% from 2015 and 0.5% above 2014. In particular, "market" cattle that has been on feed for 120 days or longer at 4.152 million head is 3.4% higher than last year and 17.4% above 2014. Meanwhile, steer weights remain well above last year and the 5-year average with the market moving into a seasonal period where cattle slaughter increases. Expectations for large beef supplies this spring and summer may subdue prices as a result. Our clients have been active adjusting existing positions with all the volatility in the market. Recent moves to strengthen cattle hedges and add flexibility to corn positions have proven timely given the price action over the second half of the month. Our consultants are now working with clients to strengthen feed hedges and add flexibility back to cattle positions.

Live Cattle Marketing Periods:



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: March

Corn prices and margins were lower over the past two weeks in reaction to the Prospective Plantings and Grain Stocks reports. The big shock was from the farmers' 2016/17 planting intentions of 93.601 million acres of corn. This was over 3 million acres above the average pre-report expectations and 5.6 million acres above the initial USDA estimate revealed at the annual outlook forum in February. The estimate also represents an additional 5 million acres compared to 2015/16. According to the USDA this would be the third highest planted acreage of corn since 1944. Stocks of corn as of March 1st were estimated to be 7.808 billion bushels, 58 million bushels more than March of 2015 but slightly below the average pre-report estimate of 7.822 billion bushels. Corn export shipments continue to run behind the pace needed to meet the USDA estimate of 1.650 billion bushels but have made small progress in closing the gap, which now stands at 167.5 million bushels behind to meet the estimate. Back of the envelope projections of 2016/17 corn carry out are well north of 2 billion bushels if the hefty planted acres are realized with normal trendline yields. The Brazilian soybean harvest is progressing and is estimated to be two-thirds complete, which clears the way for the second crop corn planting. Total second crop Brazilian corn production is estimated to be just over 55 MMT. Following the release of the two market moving reports our consultants are working with clients to adjust existing positions to coincide with the new information in the marketplace.

The estimated yield for the 2016 crop is 175 bushels per acre and the non-land operating cost is $400 per acre. Land cost for 2016 is estimated at $250 per acre [1]. Basis for the 2016 crop is estimated at $-0.05 per bushel.

The estimated yield for the 2017 crop is 175 bushels per acre and the estimated operating cost is $400 per acre. Land cost for 2017 is estimated at $250 per acre [1]. Basis for the 2017 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.

Soybeans Margin Watch: March

Soybean prices and margins continued higher the past two weeks and held their gains after the release of the Prospective Plantings and Grain Stocks reports. The farmers' intentions for planted acres of soybeans came in at 82.236 million acres, lower than average pre-report estimates by 600 thousand acres as well as over 400 thousand less than 2015/16 planted acreage. The upside surprise in corn acres did not translate to a commiserate abandoning of bean acres. The intended bean acres if realized would still represent the third largest bean crop in history. March 1st stocks of soybeans were 1.531 billion bushels, 38 million bushels less than expectations but a stout 204 million bushels greater than bean stocks in March of 2015. Exports shipments of soybeans continue to move ahead of the pace needed to meet the USDA's estimate of 1.690 billion bushels, 88.8% of that estimate have been shipped thus far compared to an average pace of 81.2% shipped at this time over the past ten years. Harvest progress in Brazil is last estimated to be around 67% complete, while still in the beginning stages in Argentina. Our consultants continue to work with clients to capitalize on market movement and square positions given the updated planting and stocks data.

The estimated yield for the 2016 crop is 50 bushels per acre and the non-land operating cost is $325 per acre. Land cost for 2016 is estimated at $175 per acre [1]. Basis for the 2016 crop is estimated at $-0.2 per bushel.

The estimated yield for the 2017 crop is 50 bushels per acre and the estimated operating cost is $325 per acre. Land cost for 2017 is estimated at $175 per acre [1]. Basis for the 2017 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: March

Wheat prices and margins were largely unchanged the past couple of weeks but did stage a move upward following the release of the Prospective Plantings and Grain Stocks reports. The farmers' intentions of 2016/17 planted wheat acres of 49.559 million acres were less than anticipated. The pre-report average expectations were for 51.659 million acres. Also the actual number was just over 5 million acres less than those planted in 2015/16. While the planted acres were less, the March 1st stocks of wheat were ample at 1.372 billion bushels. That was 16 million bushels above the average pre-report estimation, however more impressively was 232 million bushels greater than wheat stocks on hand in March of 2015. Wheat export shipments continue to lag the pace needed to meet the USDA estimate of 775 million bushels, as of this week 74.0% of the estimate has shipped, that trails the ten year average of 81.2% having been shipped by this point in the marketing year. Globally there is talk of reductions to Indian wheat production of possibly upwards of 15% due to recent weather issues there. The Indian Farm Ministry however does not believe the impact will be that great. Our consultants continue to work with clients to adjust positions given the updated information and movement in the marketplace.

The estimated yield for the 2016 crop is 70 bushels per acre and the non-land operating cost is $300 per acre. Land cost for 2016 is estimated at $125 per acre [1]. Basis for the 2016 crop is estimated at $-0.35 per bushel.

The estimated yield for the 2017 crop is 70 bushels per acre and the estimated operating cost is $300 per acre. Land cost for 2017 is estimated at $125 per acre [1]. Basis for the 2017 crop is estimated at $-0.35 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.