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Beef - Nov 18, Nebraska
Hog - Dec 9-10, Chicago
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Dear Ag Industry Associate,

As we move through the fall season, much of the attention has shifted to harvest including the progress of gathering this year's crops along with the size of those crops following a very favorable growing season. The large supply of both corn and soybeans will create very different paths in the coming year for crop and livestock producers as highlighted by the margins for each industry. Another dynamic in play is how this increased supply will impact forward cash prices and basis levels next year.

This month, we feature an article, "The Cash Market and Margin Management" that explores when it may be advantageous to contract a forward price in one's local cash market, and how the futures market may be incorporated to compliment a cash purchase or sale. Another topic we explore this month, in "Looking at the Full Picture" is accounting for losses on hedge positions that are protecting forward profit margins in deferred periods.

The latter article helps to make sense of realizing losses on derivative transactions that will be reconciled by future purchases and sales in the local market. It features a new tool called the Capital Monitor that was created to help producers and their lenders make sense of how gains or losses on hedging transactions translate back to margins on the open market. Using this tool has been helpful in allowing producers to put losses on futures and options into a broader context of looking at an overall profit margin opportunity.

As always, the latest profit margin projections for the crop, hog, dairy and beef cattle industries are also included in our regular Margin Watch feature along with a full schedule for upcoming margin management educational programs in the 2015 calendar year.

Sincerely,

Chip Whalen
Managing Editor
V.P. Of Education & Research
CIH

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

The Cash Market and Margin Management

Within a margin management context, profitability is ultimately determined by the costs and revenues that are realized in one's local marketplace. In this respect, the cash price is important as it truly reflects the profitability of a crop, livestock, or dairy operation at any given point in time. In projecting forward margins, the futures market is used as a price discovery mechanism to estimate costs and revenues in deferred time periods. While this is a reasonable way to gauge future profitability, there is obviously room for error given that local prices may be more or less than what the futures market is projecting. This difference or basis between cash prices and futures prices can have a significant impact on profitability and one's overall margins in any given year or period within a year depending on what is happening in the cash market.

In contracting prices to secure forward profit margins, producers have a choice of using their local cash market or derivative contracts including futures and options on the exchange. When prices are favorable and contracting is available, it is typically better to contract for purchases and sales in the cash market as this provides greater certainty to an operation's bottom line. The basis, or the difference between the cash market price and the futures market price, is typically used as a gauge of when it would be favorable to contract for purchases and/or sales in the local market. A weak basis from a historical or seasonal perspective may trigger a purchase decision to realize a cost; likewise, a strong basis may similarly trigger a sale decision to secure revenue. In some cases, this basis is something that can only be contracted for in a spot transaction. In other cases however, the basis may be set in advance of delivery and be secured over a period of time. This is typically true on the crop side as basis can often be contracted in

"The basis, or the difference between the cash market price and the futures market price, is typically used as a gauge of when it would be favorable to contract for purchases and/or sales in the local market."

forward time periods.

In the current environment, crop prices have been under a great deal of pressure due to the large supplies expected to be harvested this fall and the growing stocks that will accompany this increased supply. This dynamic typically results in a weak basis as cash prices come under pressure relative to futures prices. Because of this, feed purchases may be favorable for hog, dairy and cattle operations not only on a spot basis, but potentially on a forward basis as well. To the extent that basis values are offered at attractive levels in deferred periods, it may well be worthwhile to secure these costs in order to achieve greater visibility on forward margins. Clock soybean meal contracts, forward corn and DDG purchases, and forages may very well be secured into 2015 at costs that pencil out favorably relative to the value of hogs, milk and cattle for livestock feeders.

Given the dynamics of basis the past few years following short crops and supply deficits relative to demand, it might be prudent to contract in the local cash market for feed purchases to the extent that basis is offered at a level which translates into favorable forward margins. While using forward contracts in the cash market provides

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The Cash Market and Margin Management

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greater certainty to deferred margins given that basis is included in the transaction, a disadvantage often cited with using the cash market is the lack of flexibility those contracts provide around the price being secured. While it may be the case that feed prices can be locked in at levels that pencil favorably for forward margins, it still might be advantageous to retain flexibility for margins to improve. The futures market can assist in this process though as complimentary positions may be built to add flexibility to a cash purchase or sale in one's local market.

As an example, let's say that I am being offered a clock contract on soybean meal for 2015 at basis levels which appear attractive relative to past years and much closer to normal from a historical perspective. I like the fact that I can lock in this supply for my protein needs, and having the peace of mind knowing that the supply will be available when needed at my operation following some of the dislocations that have taken place recently. While locking in a delivered price on a clock basis sounds good from a margin perspective, I still may have pause given the recent increase in price due to concern that I might be booking an inflated value. What I could consider doing in this instance is going to the exchange to purchase a put option or put spread in order to participate in lower prices following my purchase should the market begin to move down again. Combined with a fixed purchase price in the cash market, a put option or put spread would allow me to essentially re-price my soybean meal purchase in a declining market for the cost associated with the option's premium.

If prices do in fact decline, the put option or put spread will gain in value to offset the depreciated inventory that was purchased at a higher price. In a similar way, if a sale price is contracted in the local cash market such that basis is secured against forward margins, flexibility may be added by complimenting that sale with the purchase of a call option or call spread. This would allow a producer to participate in higher prices following the cash sale, as the call option or call spread will gain in value to offset the opportunity cost of having previously sold at a lower price level. Other strategies could also be considered around either a cash purchase or sale on a forward contract in one's local marketplace to achieve added price flexibility. In general, if basis levels are attractive as they compare to historical ranges and factor favorably to forward margins, it would typically be advantageous to contract those in one's local cash market; however, this does not necessarily mean that a producer must forgo flexibility. Understanding how the cash market and futures market can work together to protect forward margins will ultimately put you in greater control of your operation's profitability and improve the effectiveness of your overall margin management.

Upcoming Margin Seminars

Margins were mixed over the over the past two weeks, weakening sharply in nearby periods while strengthening slightly in deferred periods. Higher feed costs, particularly soybean meal, contributed to the pressure on margins over the last half of October while hog prices dropped in nearby contracts and increased further out. Margins remain quite strong from a historical perspective, at or above the 90th percentile of the past 10 years through Q2 and above the 80th percentile in Q3. Both corn and especially soybean meal have continued to move higher since the middle of October with slow harvest progress and short covering helping to fuel gains. The cash market for soybean meal remains quite strong with limited new-crop soybean processing preventing supplies from being replenished in the domestic interior. Hog prices meanwhile have come under pressure with weakness in the cutout led by hams as well as a continued decline in PEDv accessions leading to less concern about future pork supplies. While federally inspected slaughter continues to track below year-ago levels with the current week ending November 1 down 3.38% from last year, much of that decline has been made up by increased slaughter weights. The average dressed weight of 213 pounds last week was up 1.43% from last year, with total pork production only down 1.89% from 2013 as a result. Given recent volatility in the market, our consultants have been working with clients to make strategic adjustments on existing positions. Adding flexibility back to both feed and hog hedges has been a focus following the strength in corn and soybean meal along with the weakness in hogs. Flexible strategies continue to be favored in deferred periods for new margin coverage as margins in those periods are generally lower than nearby opportunities.

4th Qtr '14 2013 2014 Q4 2014: HIGH **$34.80** LOW **$3.34** LAST **$15.48** 10YR PERCENTILE **93.5%**

1st Qtr '15 2014 2015 Q1 2015: HIGH **$27.53** LOW **$6.52** LAST **$17.01** 10YR PERCENTILE **95.5%**

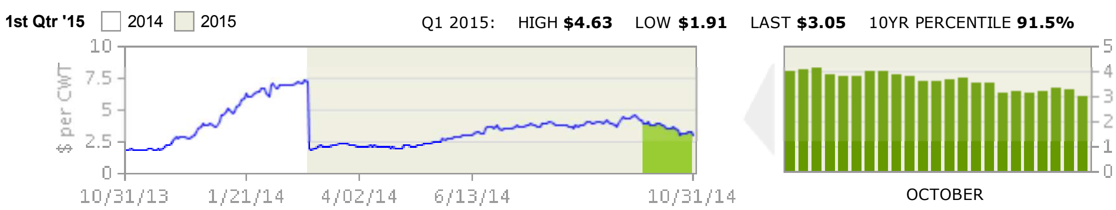
2nd Qtr '15 2014 2015 Q2 2015: HIGH **$26.23** LOW **$14.09** LAST **$21.22** 10YR PERCENTILE **90.1%**

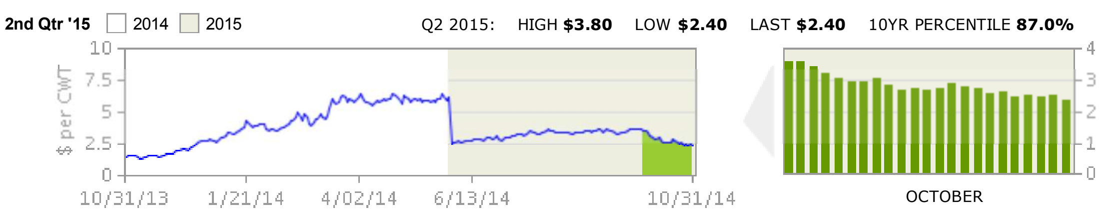
3rd Qtr '15 2014 2015 Q3 2015: HIGH **$15.42** LOW **$11.01** LAST **$12.02** 10YR PERCENTILE **82.9%**

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: October

Dairy margins continued to weaken over the last half of October due to a combination of higher feed costs and lower milk prices. Strength was particularly evident in the nearby soybean meal market, with slow harvest progress and transportation issues leading to limited new-crop soybean processing that is keeping supplies from being replenished in the domestic interior. Short-covering has also supported both soybean meal and corn on ideas that a majority of the bearish supply story has already been digested by the market. Milk prices have been pressured in nearby months by indications of increasing milk production while demand concerns linger. USDA reported September Milk Production at 16.5 billion pounds, up 4% year-over-year though down 1.1% from August on a daily average basis. USDA revised the milking herd down slightly, but increased the output per cow, with productivity in the Midwest states of the Central Region particularly high due to lower costs and greater availability of forages. Chinese whole milk powder imports meanwhile during the month of September totaled 20.7 million pounds which was the lowest figure since October 2011 and marked the sixth consecutive monthly decline. Although the monthly Cold Storage report reflected a continued drawdown in cheese stocks and butter inventories, the reduced Chinese powder demand is worrisome against a backdrop of increasing milk production. Following the recent volatility in price, our consultants have been working with clients to evaluate strategic adjustments on existing positions. Adding flexibility back to feed hedges, particularly soybean meal, has become more attractive with the strength in that market while milk has likewise presented an opportunity to increase flexibility given the recent weakness there. Flexible strategies continue to be favored in deferred periods for new coverage due to the weaker margins relative to spot values.





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 $7.00/cwt for non-feed expenses. Milk basis is $0.75/cwt and non-milk revenue is $1.00/cwt.

Looking at the Full Picture

For many margin managers, using derivative contracts to protect forward profitability can be challenging given the performance bond requirements of various futures and options strategies. In addition to the cash flow implications of maintaining these margins in a brokerage account, gains and losses on open and closed positions are typically "marked-to-market" or realized periodically on a month-end basis. It may well be the case that depending on market conditions, open or closed positions will result in a loss that is realized in the current period; however, that loss goes against a deferred period where actual costs and revenues will be assumed at a later date. This dilemma creates a cash flow dislocation as hedge losses are realized first before operating gains follow later. As a result, working capital is necessary to fund the hedge losses until funds come back into the operation over time. In addition, it becomes easier to focus on the "loss" resulting from the derivative transaction because the operating gain has not yet caught up to that loss.

A producer might conclude that they should not have hedged to begin with so that the loss on the derivative contracts would not have occurred. While it may be true that avoiding these losses would have allowed for even more favorable margins to be realized, it is important to keep in mind what these losses represent and put them within context of the operation's overall goals and objectives. In using futures or options to protect costs and revenues in deferred periods, one is typically defining a level of profitability that represents an acceptable target or return to the operation. A projection of that forward profit margin is made with some assumptions built in, but if the model reasonably captures all the unique variables of the specific operation, it should provide good visibility into those forward margins.

"If one only considers the loss without taking into consideration improvement in operating margins that result from lower costs and higher revenues, they may miss the point of how their operation has actually achieved a favorable result in the end run."

Let's assume for example that we have a hog operation which finishes around 90,000 market pigs annually and has actively been monitoring and hedging forward margins about a year out in time. They have begun to realize actual margins in the spot Q4 period, and maintain derivative positions to protect forward margins through Q4 of 2015. Given this hypothetical operation's goals and objectives, they have defined a target net return over the next year of $2 million they would like to protect with the possibility of that margin improving slightly if margins continue to strengthen. Following the price action of forward feed costs represented by corn and soybean meal futures along with projected revenues represented by hog futures, the market has already provided the opportunity to contract a mix of futures and option combinations that will allow this operation to achieve their objectives, and they have been maintaining these positions in the market as forward margins have continued to improve.

With corn and soybean meal prices steadily moving lower over the past several months along with increasing hog prices, this operation has both open and closed hedge losses on these futures and options combinations that they are marking to market on a monthly basis. While their costs and

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Looking at the Big Picture

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revenues have yet to be realized for the remainder of 2014 and all of 2015, feed costs are generally lower than what they were projecting when they started to protect these forward margins and hog prices are higher than what they were expecting to receive in these deferred periods. On the open market, their unhedged margin is much more favorable than what they are projecting although their net margin is nonetheless above what they targeted as a net return over the following year. The graphic below illustrates a tool we call the Capital Monitor which shows the impact of these derivative hedges on net profitability relative to the open market:

Capital Monitor

Print

To view estimated changes to capital requirements in different scenarios, enter a percentage price and/or coverage change for a given commodity or contract.

Total

Type	SPAN Risk	Intra Commodity Risk	Net Option Value	Option Premium Paid	Option Premium Received	Futures P/L	Performance Bond	Open Market Margin	Net Margin
Current	$731,406	$ 0	$436,372	$875,900	$506,740	N/A	$295,034	$4,016,025	$2,461,410
Projected	$731,406	$ 0	$436,373	$875,900	$506,740	$ 0	$295,033	$4,016,025	$2,461,410

Use Adjustments: ☐ Submit

Corn

Contract	Type	Net Quantity	SPAN Risk	Intra Commodity Risk	Net Option Value	Option Premium Paid	Option Premium Received	Futures P/L	Performance Bond	Price Adjustment	Coverage Adjustment
Total	Current	201.95	$251,128	$ 0	$24,526	$51,300	$20,100	N/A	$226,602		
	Projected	201.95	$251,128	$ 0	$24,526	$51,300	$20,100	$ 0	$226,602	0 %	0 %
Dec 14	Current	48.00			$ 0	$ 0	$ 0				
	Projected	48.00			$ 0	$ 0	$ 0	$ 0		0 %	0 %
Mar 15	Current	43.93			$7,820	$9,300	$ 0				
	Projected	43.93			$7,820	$9,300	$ 0	$ 0		0 %	0 %
Jul 15	Current	48.00			$ 0	$ 0	$ 0				
	Projected	48.00			$ 0	$ 0	$ 0	$ 0		0 %	0 %
Sep 15	Current	48.00			$ 0	$ 0	$ 0				
	Projected	48.00			$ 0	$ 0	$ 0	$ 0		0 %	0 %
Dec 15	Current	14.01			$16,706	$42,000	$20,100				
	Projected	14.01			$16,706	$42,000	$20,100	$ 0		0 %	0 %

Past performance is not necessarily indicative of future results.

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Looking at the Big Picture

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Looking at the total across the top and scanning over to the far right, one can see that on the open market, this particular operation would be making just over $4 million based on an unhedged position with all costs and revenues reflected at current projections. In the final column, the net margin of $2,461,410 shows what the operation is expecting to realize taking into consideration the impact of their hedging positions over the following year. While the net margin is not as strong as what would be the case under the open market, it is nonetheless above the goal this particular operation set out to achieve. The difference between the two figures of $1,554,615 would represent the hedge loss on both open and closed positions looking out through Q4 of 2015. While this figure does represent a cost to the operation both from the standpoint of interest on working capital until actual margins are realized as well as lost opportunity, it is important to keep in mind that the operation is still projected to achieve their objective in realizing a margin above their defined profitability target.

In judging the impact of hedge losses on open and closed positions that are marked to market but allocated against deferred periods, it is important to look at the bigger picture of what these losses represent within the broader context of net profitability. If one only considers the loss without taking into consideration improvement in operating margins that result from lower costs and higher revenues, they may miss the point of how their operation has actually achieved a favorable result in the end run.

Past performance is not necessarily indicative of future results.

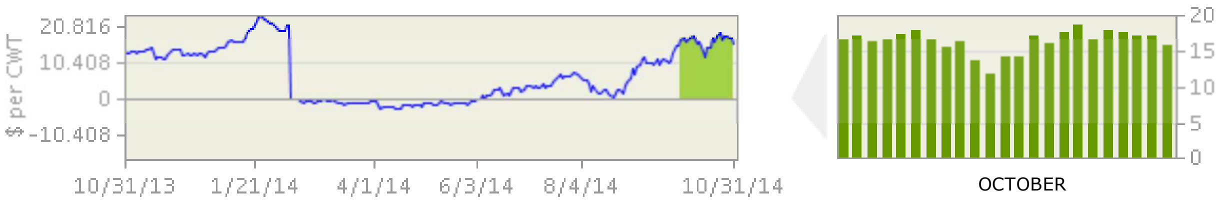
Beef Margin Watch: October

Beef finishing margins improved since the middle of October as cattle prices rose more than feed costs over the past two weeks. Moreover, the increase in corn prices has negatively impacted feeder prices which were held in check over the second half of the month while live cattle prices advanced. Margins remain in the red from the April marketing period forward however as the limited supply and high price of feeder cattle continue to limit opportunities for feedlots, even with cheaper feed costs. The corn market built on the strength established earlier in the month as short-covering and slow harvest progress have provided support. There is a general sense that most of the bearish supply story has already been factored into price, with only a very large increase in the production and ending stocks estimates able to provide much of a negative reaction at this point. Cattle continues to draw support from tight beef supplies, with total beef inventories in Cold Storage down 16% from a year ago though up 7.7% during the month of September. USDA reported total Cattle on Feed as of October 1 at 10.058 million head, down 0.5% from a year ago. September placements of 2.007 million head were up 1% from last year, with heavier weight placements noted as cattle stayed on pastures longer. Strong export demand has been observed recently to the Asian markets of Japan, South Korea and Hong Kong which has helped to support beef prices, particularly the cheaper components of the cutout. Our consultants continue working with clients to evaluate strategic adjustments on existing positions. Adding flexibility to corn feed hedges has been a focus recently given the strength in that market, while opportunities to establish new protection on deferred placements continues to be limited by negative margins.

Live Cattle Marketing Periods:

Dec '14 ☐ 2013 ☐ 2014 Dec 2014: HIGH **$19.16** LOW **($4.04)** LAST **$15.74** 10YR PERCENTILE **99.3%**

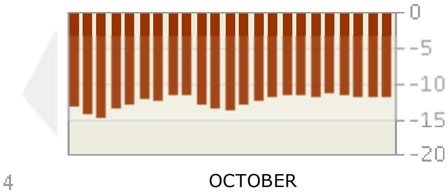
Feb '15 ☐ 2014 ☐ 2015 Feb 2015: HIGH **$23.63** LOW **($2.95)** LAST **$15.79** 10YR PERCENTILE **98.3%**



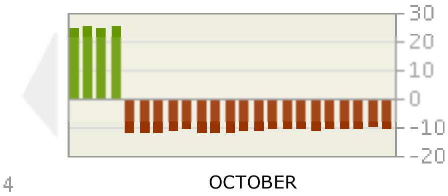
Apr '15 ☐ 2014 ☐ 2015 Apr 2015: HIGH **$16.34** LOW **($6.59)** LAST **($3.02)** 10YR PERCENTILE **41.8%**

Jun '15 ☐ 2014 ☐ 2015 Jun 2015: HIGH **$7.24** LOW **($15.18)** LAST **($11.15)** 10YR PERCENTILE **8.6%**

Aug '15 2014 2015 Aug 2015: HIGH **$21.15** LOW **($14.73)** LAST **($11.83)** 10YR PERCENTILE **7.9%**



Oct '15 2014 2015 Oct 2015: HIGH **$25.83** LOW **($11.91)** LAST **($10.16)** 10YR PERCENTILE **4.8%**



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.

Commodity & Ingredient Hedging, LLC
175 W. Jackson, Suite 1760 ▪ Chicago, IL 60604 ▪ 312-596-7755

Corn Margin Watch: October

Corn margins have continued higher to finish October near levels last seen in the middle of August. Harvest progress has continued to lag behind average with nearly 60% of the crop harvested to date. Although supplies remain ample for nearby needs, the slow harvest pace has caused some local shortages and is part of the recent strength in prices. On the demand side, nearby ethanol margins continued to strengthen throughout October despite higher corn costs. Through the first eight weeks of the marketing year, ethanol production is up 4.5% from this point last year as profitability in ethanol production remains. On the feeding side, hog and dairy margins have weakened somewhat since the beginning of October as higher input costs and lower revenues pressured margins. That said, margins remain quite strong from a historical perspective and continue to incentivize additional production which may require more corn if expansion occurs. Exports have continued to keep pace with the USDA estimate having sold 42.2% of the USDA expectation compared to 41.3% on average for this point in the crop year. Our consultants are working with clients to help make strategic adjustments to existing protection strategies that would increase the delta in current hedges to capitalize on the increase in price of late while retaining the opportunity to benefit further should prices continue to move higher.

The estimated yield for the 2014 crop is 180 bushels per acre and the non-land operating cost is $612 per acre. Land cost for 2014 is estimated at $243 per acre [1]. Basis for the 2014 crop is estimated at $-0.15 per bushel.

The estimated yield for the 2015 crop is 174 bushels per acre and the estimated operating cost is $615 per acre. Land cost for 2015 is estimated at $238 per acre [1]. Basis for the 2015 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.

Soybeans Margin Watch: October

Soybean margins have increased moderately since the middle of October as a function of soybean meal shortages. Rail availability of soybean meal has been a difficult thing to come by over the last month and is causing increased price and basis levels in cash markets around the country. Harvest progress has come along well with roughly 81% of the crop harvested, in-line with historical averages. On the demand side, exporters have been busy filling forward needs. For soybeans, exporters have committed 73.7% of the current USDA export forecast compared to 53.1% on average for this point in the crop year. For soybean meal, exporters have committed 58.7% of the current USDA expectations compared to 33.9% on average. The extreme price move higher in soybean meal recently has caused some previous export sales to be switched to Brazil as they were written as optional origin contracts. Due to the lack of rail car availability, there are rumors that producers in the southeast have contracted for South American soybean meal which pencils out to be a cost savings compared to paying elevated domestic prices. Our consultants are working with clients to help manage existing protection strategies. Some of our clients are considering adjustments to those strategies that would add delta to current hedges to capitalize on the higher prices while retaining flexibility to participate in higher prices should that continue.

The estimated yield for the 2014 crop is 52 bushels per acre and the non-land operating cost is $364 per acre. Land cost for 2014 is estimated at $243 per acre [1]. Basis for the 2014 crop is estimated at $-0.2 per bushel.

The estimated yield for the 2015 crop is 52 bushels per acre and the estimated operating cost is $365 per acre. Land cost for 2015 is estimated at $238 per acre [1]. Basis for the 2015 crop is estimated at $-0.2 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: October

Wheat margins have strengthened further since the middle of October. Domestically, winter wheat crop conditions are recently reported to be 59% in good-to-excellent condition, down 2% from last year's level at this point. Condition ratings heading into the winter dormancy period have historically had little effect on the spring harvest, but are an important starting point. Due to slight delays in soybean harvesting in the eastern Midwest, some in the trade believe there will be some reduction in soft red wheat acreage which has helped support prices recently. Exports have continued to lag the USDA expectation with year-to-date shipments down 33% from last year compared to the USDA projection of 21% below year-ago. The lower export pace continues to point to stiff competition outside the U.S. namely from the E.U. and the Black Sea regions. On the global front, Russian production expectations are beginning to be reduced as yields in the latter half of harvest have come in lower than the early results. A recent USDA attaché report suggests the Russian crop will be closer to 57.5 million metric tons compared to the current USDA expectation of 59 MMT. Our consultants continue working with clients to protect these forward margins with flexible strategies on existing coverage that will allow for potential margin improvement over time. Some of our clients are considering adjustments to current protection strategies that would capitalize on the rising prices while still preserving the opportunity to participate in higher prices should the market continue higher.

The estimated yield for the 2014 crop is 67 bushels per acre and the non-land operating cost is $366 per acre. Land cost for 2014 is estimated at $163 per acre [1]. Basis for the 2014 crop is estimated at $-0.4 per bushel.

The estimated yield for the 2015 crop is 72 bushels per acre and the estimated operating cost is $328 per acre. Land cost for 2015 is estimated at $158 per acre [1]. Basis for the 2015 crop is estimated at $-0.2 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.