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Management and Marketing 2009 Winter Wheat

by

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High wheat prices, rapidly changing input costs, and changes to crop insurance present some management challenges that will be faced by winter wheat producers planting the 2009 crop. In this *Commentator*, we examine the costs, expected returns, and insurance coverage as it pertains to winter wheat. Several of the issues will also apply to producers planning for other crops.

Wheat Situation and Outlook

In 2006, the total volume of wheat produced in the United States was the second lowest since 1988. In 2007, total wheat production increased by 250 million bushels but was outpaced by total consumption leading to the lowest carryover supplies in over thirty years. The combination of a very tight supply of wheat, the growth of worldwide demand and a variety of other outside factors led to a price rally of historic proportions in late 2007 and early 2008.

By August of 2008, it was apparent the wheat harvest was larger than most had expected earlier in the year. USDA projected in its August crop production report that the 2008 wheat crop will exceed 2007 production by 19%. In addition to the growth of the national average wheat yield over the last two years, U.S. wheat producers planted a total of 6 million additional acres of wheat in 2008 compared to 2006. For the first time in four years, wheat production in 2008 is expected to outpace all domestic usage and exports. USDA projects that wheat carryover supplies for the

2008-09 marketing year will grow from a thirty year low of 306 million bushels in 2007 to the current projected carryout of 574 million bushels.

These facts have a bearish tone but it must be noted that even though wheat prices have fallen dramatically from the double digit highs of early 2008, prices as of mid-September 2008 were still in the range of \$6.50 to \$7.00. Of particular interest is how the wheat market views projected carryover supplies for 2008-09 compared to just two years ago. The carryover supply expected for this year is comparable to the years of 2003 through 2005 when wheat prices rose to the high \$3.00 to low \$4.00 dollar range. Yet, while the 2008-09 projected supply of wheat is nearly identical to just a few years ago, wheat prices in late August 2008 are two to three dollars higher than were reflected with similar supplies just a few years ago.

The uncertainty of price performance in the year ahead will continue to be influenced by the extraordinary price volatility in all grain commodities and other non-ag commodities as well. In addition, wheat producers face the issue of the corresponding increase in input costs such as seed, fertilizer, chemicals, and land charges. As a result, these challenges have put every commodity market, including wheat, on a new playing field where old rules of thumb for determining price direction seem to be less clear than in previous years.

What does all this mean for prices in the future? Although wheat supplies are expected to be higher for the 2008-09 marketing year, continued large price fluctuations should be expected in the months ahead. However, the current supply situation seems sufficiently tight to potentially support wheat prices above the \$6.00 mark through the rest of 2008. However, the road to

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determining price levels in early 2009 and beyond will begin with expectations for planted acres to winter wheat in the United States and ultimately, world-wide planted acreage for 2009. Demand expectations will follow as U.S. currency valuation could impact U.S. wheat exports. In addition world-wide economic growth (or lack of growth) will dictate consumption levels in the next year. While these factors typically influence price potential, the impact of the recent volatility in grain commodities and the uncertainty of the mix of acres determined by supply and demand have led to less certain price probability. For now, wheat prices are being pressured by the projected growth of supplies in 2008 and the possibility of higher production in 2009. This could be a turning point for longer term price pressure for next year.

Due to this price uncertainty, it will be important for wheat producers in the U.S. to be keenly aware of input costs and the relationship those costs have in developing a sound marketing plan. This will be critical in managing the risk of a volatile but potentially bearish market in 2009. Using market strategies that establish profitable floor prices combined with the support of revenue based crop insurance products that can back up cash forward sales will be important in maintaining profitability in 2009.

Budget Impacts

Budgeted winter wheat returns in 2009 are expected to be down from 2008 projections. Using 2009 expected prices and projected costs, the return to management and labor is expected to be down approximately \$18 an acre compared to the 2008 projections. The decrease in returns is due to the increase in input prices that have taken place in 2008. Total costs are projected to be approximately \$309 per acre compared to \$217 in 2008. Fertilizer costs account for 70% of this increase and are projected to be \$124 per acre compared to \$60 per acre last year. Machinery costs are expected to be up \$10 to \$11 an acre, due to increased fuel, repairs, and the increase in new machinery prices. Operating interest is expected to increase due to the higher costs of inputs. It will be important to manage operating capital in this volatile environment.

Other key costs to manage include fertilizer, machinery, and land costs with these three accounting for 70 to 80% of total costs. Fertilizer remains the top cost to manage estimated at 40% of total costs. To help manage this cost it is important to soil test, set realistic yield goals, and follow recommendations. Machinery operating costs and custom hire account for 5.5% and 9.4%, respectively, of total costs. Adding the machinery ownership costs brings the total of the three to 21% of total costs. Measuring and monitoring the machinery costs can provide benchmarks to manage from. Land accounts for an estimated 17% of total costs.

Table 1. 2008 Winter Wheat Budget

Estimated Yield	50	
Estimated Selling price	\$7.50	
Gross Return per acre		\$375.00
Seed	\$16.50	
Fertilizer	124.80	
Herbicides	6.20	
Insecticide	2.00	
Fungicide	15.00	
Crop Insurance	13.00	
Machinery Costs (Operating)	17.00	
Custom hire	29.00	
Operating Interest	15.65	
Total direct costs per acre		\$239.15
Machinery (Ownership Costs)	\$18.00	
Land Charge	\$52.00	
Total costs per acre		\$309.15
Total cost per bushel	\$6.18	
Return to management and labor per acre		\$65.85

Risk Management

Crop insurance and prudent marketing are the primary risk management tools available for winter wheat. Looking back at the 2008 crop year shows the scope of the issues producers will face with the 2009 crop. Producers that insured winter wheat for the 2008 crop year were met with sharply higher prices after planting. In South Dakota, producers have often insured winter wheat using Crop Revenue Coverage (CRC)

rather than Revenue Assurance (RA) that has commonly been used on other crops.

Historically on CRC there was a cap on price movements of the insurance coverage of \$2/bushel. For producers this feature would become a problem if 1) they forward contract or sell futures on wheat, 2) then have a production problem, and 3) have the price for wheat increase above the maximum insurance level. While both RA and CRC had the same base price of \$5.88 per bushel for 2008 winter wheat, the RA final guarantee was figured on a harvest price of \$8.60 per bushel and the CRC final guarantee was capped at \$7.88 per bushel. We do not know of any producers that were “caught” by this, but we did visit with many of them on the limitations during the first half of 2008.

Producers typically insure winter wheat, but generally at lower coverage levels than used on spring wheat. Only 37 counties in South Dakota have winter wheat insurance, roughly those in the southwest two-thirds of the state (figure 1). The deadline to purchase or change the coverage is September 30. There have been some updated transitional (or “t”) yields that apply in 2009. For example, the non-irrigated “t” yields on continuous cropping winter wheat range from 18 bushels per acre in Harding County (a decrease from recent years) to 44 bushels per acre in Hutchinson County (an increase from recent years).

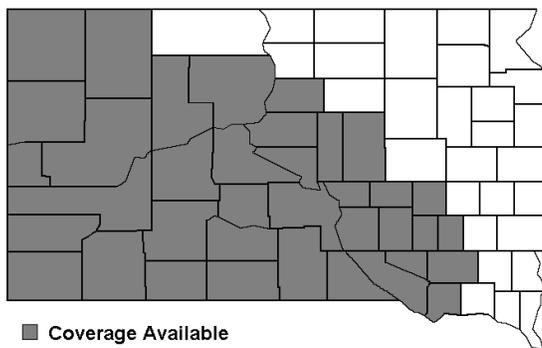


Figure 1. South Dakota winter wheat counties.

Producers purchased RA on 48% and CRC on 44% of the insured wheat in South Dakota for the 2008 crop year (figure 2). Other coverage, on 8% of the acres, consisted of Multiple Peril Crop Insurance (MPCI), Catastrophic Coverage, Income Protection (IP) and Group Risk products. For the 2009 crop year the APH price is \$6.50 per bushel as of the July 17 Price

Addendum. Unless this price election is adjusted higher producers will likely continue to use the revenue products. The coverage mix between RA and CRC could easily change for the 2009 crop year given the change to the harvest price limits on the revenue products.

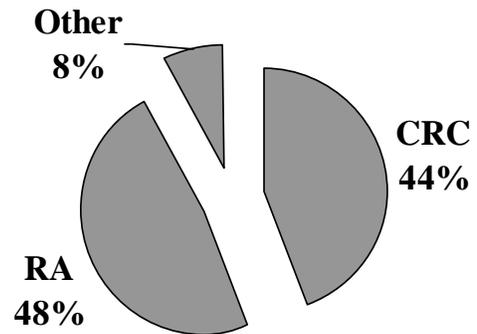


Figure 2. Wheat insurance acres in South Dakota for 2008

The *Special Provisions* on the winter wheat insurance products include statements regarding a change to the harvest price. For RA the statement reads “The Fall Harvest Price will not be greater than 200 percent of the Projected Harvest Price.” Similarly, for CRC the statement reads “The Harvest Price can be less than the Base Price without limitation, but will not be greater than 200 percent of the Base Price.” In other words, RA will now be capped. Further, the cap for both RA and CRC is now double the projected or base price. Both products could now conceivably hit a maximum indemnity level following a substantial price increase – opening up producers to hedge losses that could exceed their indemnity payments.

The price election levels for CRC and RA are based on an average of the Kansas City Board of Trade’s July 2009 wheat contract. RA settles to an early July average of prices from the same contract, while CRC settles to a late-July and early-August average of prices from the September contract. The difference in settlement months tends to average out returns from the different products, leaving cost differences as the deciding factor for the choice between RA and CRC.

To prudently hedge, a way to guard against the caps is to make covered sales. Essentially a covered sale begins with a normal hedge using cash contracts or selling futures. The difference comes with the addition of an out-of-the-money call option purchased at the same time. Textbooks will sometimes call this a synthetic put strategy, except here we are talking about a “way” out-of-the-money call. Ideally the strike price would be below the cap or upper limit price of the insurance and the option premium paid would be very small.

The 2009 July Kansas City Wheat futures contract has recently been trading below \$8.00 per bushel. However, the average price over the past month has been \$8.77 per bushel, and this sets the projected harvest and/or base price. The insurance change means that for both RA and CRC the upper limit will be \$17.54 per bushel. There are currently multiple 2009 July options listed with volume and open interest, reflecting substantial trading this far in advance of expiration. The \$11.90 strike call was recently trading close to \$0.15 per bushel. For South Dakota producers, the September contract is probably the more appropriate contract month to use to cover sales. If the futures price level and volatility remain

steady, a producer should be able to work with a broker and bid less than \$0.15 per bushel for a further out-of-the-money call, especially if much time passes before sales are covered.

Conclusion

The market prices and cost structure for winter wheat are different, but the management approaches have not changed. On the Department’s website, <http://econ.sdstate.edu/>, one can find a weekly “Wheat Market Review” under the Extension drop-down menus. Under the “Management Tools and Links” one can find the winter wheat budget. We have also adjusted the “Risk Calculator” to reflect the revenue insurance change and to more readily show the costs and benefits of covered sales.

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