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Winter Wheat Decisions

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ECONOMICS COMMENTATOR

South Dakota State University

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WINTER WHEAT DECISIONS

by

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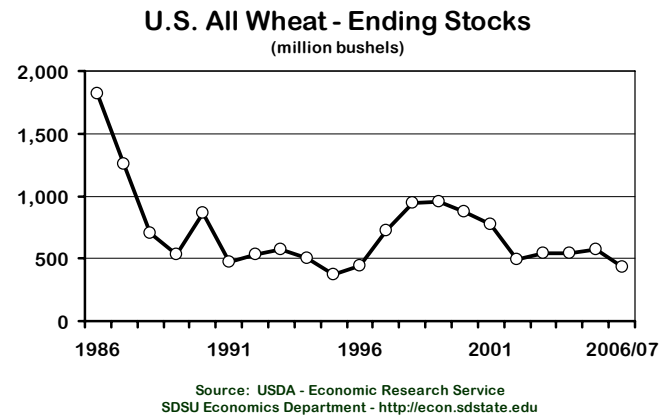
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Relatively high wheat prices, changing input costs, and a challenging production season in 2006 have producers interested in the profit prospects for winter wheat. In this *Commentator*, we examine the costs, expected returns, and insurance coverage as it pertains to winter wheat. Producers considering planting winter wheat will face input costs shortly and are closing in on the September 30 deadline for purchasing insurance coverage. In addition, it is never too early to think about marketing.

Price Outlook

Prices for both winter and spring wheat in South Dakota exceeded \$3.50/bushel from January through early May of 2006. For the rest of the spring and summer, wheat prices exceeded the \$4.00/bushel mark and reached as high as \$5.00/bushel in some locations for a short period in late July. There are two primary reasons for this exceptional price performance in wheat; the shorter term factor of drought in the main wheat growing areas of the United States and the longer term factor of historically low carryover supplies. Wheat prices have responded to this longer term supply factor by remaining in the mid-\$3.00/bushel range since mid 2002. This compares to the dismal three and a half year period from 1998 through mid 2002 when burdensome domestic and world supplies of wheat kept wheat prices in South Dakota mostly in the mid to high \$2.00/bushel range.

Figure 1.

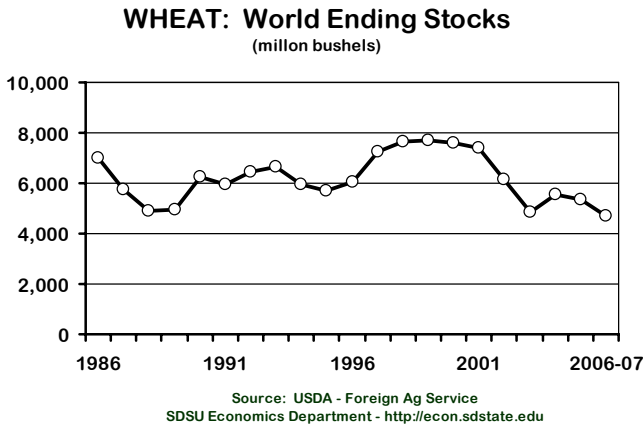


In 2002, supplies of wheat declined significantly due to drought in the United States, Canada and Australia. These latter countries are major wheat export competitors to the United States and were forced to significantly cut back on sales in 2002 through mid-2003. Even though the drought of 2002 reduced domestic production that year, the United States was still carrying very large supplies of wheat and was able to reduce this burdensome supply by selling greater than expected volume into the world market. Since 2003, wheat production in the United States has declined each year. As a result, carryover supplies of wheat have remained very tight each year since 2003 (fig. 1). The current projection for U.S. wheat ending stocks for 2006 is estimated at 434 million bushels, the second lowest ending stocks position in 30 years. In addition, world supplies have declined approximately 40 percent since 2000 and current projections for world wheat supplies for the 2006-07 marketing year will be the lowest in the last 25 years (fig. 2).

The carryover supply factor provided the foundation for strong wheat prices in the last six to eight months. The drought of this summer added significant volatility to wheat prices

throughout the spring and summer. Now that the harvest of both winter and spring wheat is mostly completed, wheat prices are currently \$0.60 to \$0.80/bushel lower than the highs of early July. What does all this mean for wheat prices in the future?

Figure 2.



Although wheat prices have dropped to the current \$3.75 to \$4.25/bushel range over most of the state, the lower carryover supplies of wheat noted earlier should provide good support to prices through the rest of 2006. The drought provided a price premium earlier this summer, and the dry conditions will be a factor as the fall planting season approaches. One issue that will impact price in the coming months will be the acreage planted to winter wheat and the condition of the wheat when it begins its fall growth pattern. The current price of wheat could encourage the planting of more acres of winter wheat this fall but supply may be tempered by the moisture conditions at planting time and the condition of the wheat during its fall growth period. It must be noted, however, that poor fall conditions do not necessarily translate into a poor crop the following year. Adequate winter and spring moisture can easily turn a poor fall winter wheat crop into a sound winter wheat crop for next year. The other issue that will impact price into next year is the low carryover supply of wheat. If additional production occurs in 2007, that may raise carryover supplies by the end of 2007. However, an increase in domestic supply may not be sufficient to pressure wheat prices below the low \$3.00/bushel mark.

Regardless of expectations for growing conditions, planted acres, and future carryover supplies, pricing opportunities exist right now for the 2007 winter

wheat crop and spring wheat crop. Futures prices for new crop wheat at the Minneapolis and Kansas City exchanges are still in the mid-\$4.00/bushel range offering the chance to capture a cash price for wheat harvested in 2007 around the \$4.00/bushel mark. Historically, cash prices for wheat in South Dakota rarely reach \$4.00/bushel and it is rare to capture that price almost a year ahead of the next year's harvest. In general, revenue insurance provides the ability to be more aggressive in forward pricing because indemnity payments are based on both yield and price. For producers with insurance in winter wheat counties, the decision to forward price and the methods used are clear. However, winter wheat producers in non-winter wheat counties may need to take a more conservative approach. The primary considerations in forward pricing will hinge on the cost of producing the wheat, the level of insurance coverage, and your willingness to accept a potentially profitable price now regardless of how high or low wheat prices may be from now through harvest.

Budget Impacts

Wheat prices are higher than they have been in recent years. This increase in per bushel price will help offset the reduced yield in 2006. A return to normal yields has the potential to provide a good profit margin on wheat acres. The total cost to grow a winter wheat crop in South Dakota is estimated to rise by 8 to 10 percent for the 2007 crop. We expect operating costs to increase by \$8.00 to \$9.00 per acre and ownership costs to be up \$2.00 to \$3.00 per acre. Line item increases are expected in fuel-related costs such as fertilizer, repairs, fuel, and oil. These items are estimated to increase costs by \$6.00 to \$7.50 per acre. The other costs increasing are interest from \$1.00 to \$1.50 per acre, machinery ownership from \$1.00 to \$2.00 dollars per acre, and rent.

The key costs to manage include fertilizer, machinery, and land costs as they account for 70 to 80 percent of total costs. Fertilizer remains the top cost to manage, estimated at 26 percent 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 operating account for 6.5

percent and 14 percent respectively of total costs. Adding in the machinery ownership costs brings machinery costs to 27 percent of total costs. Measuring and monitoring machinery costs can provide benchmarks to manage from. Land accounts for an estimated 26 percent of total costs. On the income side prices have increased 30 to 35 percent over last year.

Table 1. 2007 Winter Wheat Budget

Estimated Yield	50	
Estimated Selling price	\$4.30	
Gross Return per acre		\$215.00
Seed	\$11.50	
Fertilizer	46.60	
Herbicides	4.52	
Insecticide	2.00	
Fungicide	4.86	
Crop Insurance	7.00	
Machinery Costs (Operating)	11.90	
Custom hire	25.40	
Operating Interest	7.21	
Total direct costs per acre		\$120.98
Total direct costs per bushel	\$2.42	
Machinery (Ownership Costs)	\$11.13	
Land Charge	\$45.00	
Total costs per acre		\$177.11
Total cost per bushel	\$3.54	
Return to management and labor per acre		\$37.89

Winter Wheat Insurance

Wheat insurance is widely utilized by South Dakota producers and a variety of products are available. However, only certain counties, 37 in all, are designated as winter wheat counties (fig. 3). The fall purchasing deadline of September 30 for winter wheat is quickly approaching. The 2007 county-specific non-irrigated transitional (or “t”) yields on continuous cropping winter wheat range from 20 bushels per acre in Harding County to 39 bushels per acre in Hutchinson County.

Multiple Peril Crop Insurance (MPCI), Crop Revenue Coverage (CRC), and Revenue Assurance (RA) policies are available and widely used in each winter wheat county (fig. 4). In 2006, for all wheat, CRC was the preferred product, purchased on 49 percent of the insured wheat acres. RA was also widely used, being purchased on 38 percent of the insured wheat acres. Catastrophic Coverage, Income Protection, and

Group Risk products are also available, but historically seldom used.

Figure 3. South Dakota winter wheat counties

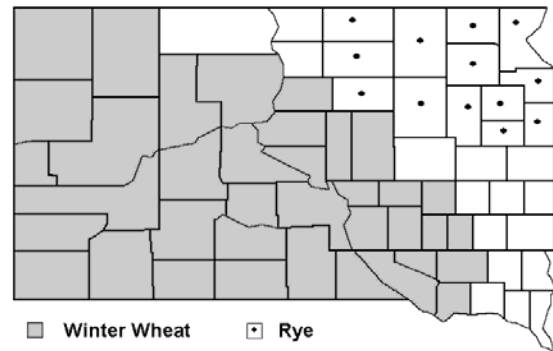
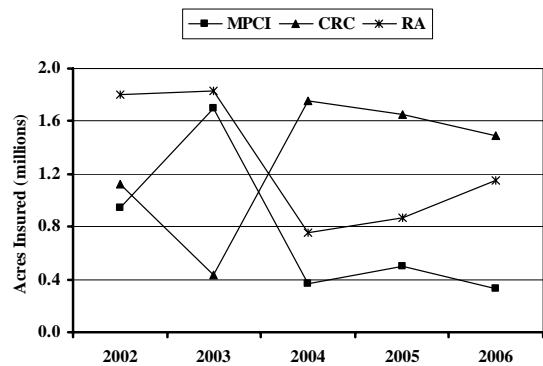


Figure 4. Wheat insurance in South Dakota



Source: USDA-RMA

The choice among products will likely depend on a producer’s preference between yield and revenue protection. The policy type used has depended on the price elections available and the relative cost of coverage. For example, MPCI was widely used in 2003, perhaps in response to production problems in 2002 and higher costs for the revenue products that year.

For the 2007 crop year the MPCI wheat price is \$3.25/bushel as of June 30, 2006. The price levels for CRC and RA are based on an upcoming average of the Kansas City Board of Trade’s July 2007 wheat contract. That contract is currently trading at \$4.43/bushel. The large price differential between yield and revenue products will likely result in substantial CRC and RA purchases. 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, leading back to making the choice on cost differences between RA and CRC.

In addition to the product choice, the coverage level must also be selected. Looking at 2006, 44 percent of the acres were insured at the 65 percent level with another 34 percent at the 70 percent level. CRC tends to be purchased at the 65 percent level and RA at the 70 percent level. The appropriate coverage choice, especially for revenue products, is easier to make if producers know their expected cost of production.

If a producer is in a non-winter wheat county, there are a couple of alternatives to consider. First, a producer may choose to plant winter wheat. The insurance does not attach until the crop is inspected in the spring. Thus, a producer would self-insure against winter damage. Committing bushels for delivery prior to knowing whether the crop is insurable in the spring may be more risky in the event of a winter crop failure. This would jeopardize the ability to use an indemnity payment to cover the cost of planting the winter wheat. In this case, pricing methods such as options or a futures hedge that do not require the delivery of wheat may be more practical.

If the stand is adequate in the spring, then spring wheat insurance coverage applies. Thus, it is difficult to price or market winter wheat under those scenarios relative to the ease of planting and marketing spring wheat. The other alternative is rye (for grain), which has MPC and CAT coverage available for counties in northeastern South Dakota (fig. 4). The deadline for

2007 coverage is September 30 with an established price of \$3.10/bushel. Written agreements can be used to obtain coverage in other counties. Rye is not a program crop, i.e. without a loan rate it is risky to grow compared to spring wheat.

Conclusion

This fall brings a strong incentive to consider planting and marketing wheat. Winter wheat can be insured this fall across many counties in South Dakota. Production costs have increased, but price prospects show solid expected returns. For producers in non-winter wheat counties, spring wheat shows profit potential, but more prudent strategies are recommended this early in the marketing year.

Related information is available on the Department's website, <http://econ.sdstate.edu/>, under the Extension drop-down menus. A tab is available for the "Wheat Market Review". Also, by clicking on "Management Tools and Links" one can find the winter wheat budget in spreadsheet form. That is also the location of the "Risk Calculator", which can be used to evaluate combinations of loan rates, insurance products, and marketing tools.

ECONOMICS COMMENTATOR

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