Should I be Using Price Risk Management for my 2008 Wheat Crop?

Todd D. Davis and Charles E. Curtis, Jr.
Extension Economists

The July 2008 wheat futures contract has been trading above $6.00 since mid-August and has recently been pushing the $7.00 level. At these price levels, managers should be asking themselves if the market is providing an opportunity to market the 2008 wheat crop. While it may be difficult to market a crop that is still in the seed bag, managers need to understand how risk management products can be used to reduce the risk of not covering production costs due to low prices. While you have several risk management alternatives available, this memo will focus on two price risk management products that you can purchase to reduce revenue risk. The price risk management strategies are to use cash forward contracts (CFC) or to purchase a put option on the July 2008 wheat futures. This memo discusses these risk management products and how they can be used to manage risk for your wheat crop.

What are my Price Risk Management Alternatives?

Figure 1 compares the cash price received by using a cash forward contract at $6.36, a put option at a $6.00 strike price, and a ‘do-nothing’ strategy of selling at harvest for the expected yield of 65 bu/acre. In addition, any loan deficiency payments (LDP) triggered through low prices are included in Figure 1. We are assuming the 2008 loan rate for wheat is the same as in 2007. The per bushel variable cost, which is the total variable costs per acre divided by the expected yield per acre, is included in Figure 1 to indicate the expected ability to cover production costs for the marketing alternatives.

Figure 1. Comparison of a Cash Forward Contract and a Put Option in Reducing the Risk of Covering Variable Costs for 65 bu/acre Non-Irrigated Wheat (Based on 2008 July Wheat Futures settlement prices on 10/5/07).
A cash forward contract (CFC) allows producers to “lock-in” a price before harvest (Figure 1). This usually has very little expense and allows for certainty of the harvest-time price. An advantage of a CFC is that price risk is removed. The disadvantage of a CFC is that you are contractually obligated to deliver grain even if you do not produce enough bushels to fulfill the contract. As a result, wheat will have to be purchased to fulfill the contract at prices potentially above the contract price. Another disadvantage of a cash forward contract is that you will not benefit from higher prices as you have already “locked-in” a price.

A put option allows you to place a floor on the price you will receive while maintaining the ability to benefit from higher prices. If prices increase, the option does not have any value and you sell your crop at the higher market price. If prices decrease below the price floor, the option has value and any loss in the cash market is offset by the value of the put option. The cost of purchasing a put option is called the premium and must be paid when purchasing the put option.

If you expect futures prices to increase above $6.86 from now to harvest, then the highest cash price is obtained by doing nothing (Figure 1). However, Figure 1 shows that if the July wheat futures price decreases below $6.86, then the cash forward contract will provide a greater price than the ‘do-nothing’ strategy. When the July wheat futures price decreases below $5.70, a put option provides a greater price than the ‘do-nothing’ strategy (Figure 1). Figure 1 also illustrates that the market is currently providing pricing opportunities for managers to market their 2008 wheat crop and provide a positive return over variable costs. For this example, the do-nothing strategy will not cover variable costs when the futures price is less than $4.90/bu.

Where do I go for More Information?

Clemson University Extension has developed educational materials to help you understand how to use price risk management and crop insurance products to manage risk in your farm business. Your local extension office will be able to help you understand your alternatives and to help you make an informed decision for your farm business.