FARM BUSINESS MANAGEMENT

FARM ECONOMICS Facts & Opinions

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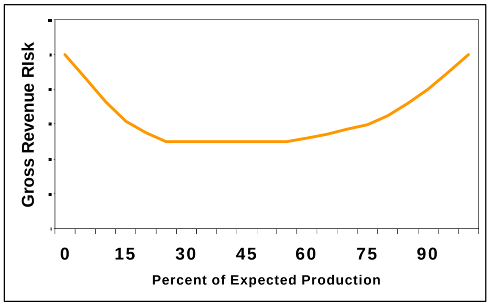
RISK REDUCTIONS FROM PRE-HARVEST HEDGING FOR DIFFERING CROP INSURANCE PRODUCTS

Recently, research has examined risk reductions associated with levels of pre-harvest hedging for different crop insurance products. In general, modest levels of hedging decrease risk. In the example shown in figure 1, hedging up to 15 percent of expected production reduces risk. Then there is a range where risk levels change very little. In figure 1, this occurs between 15 and 65 percent of expected production. Hedging increases risk after some point (65 percent of expected production in figure 1).

Figure 1. Hedging Impacts on Risk.



The choice of crop insurance product impacts the general results shown in figure 1. The following sub-sections summarize general impacts. Impacts can vary depending on farm location and degree of yield variability. Therefore, these results should only be treated as general guidelines. These results apply only to hedging by forward contracting grain or by selling futures contracts. Other forms of contracting will not necessarily have similar impacts. Also, only risks are considered. Not considered are differences in profits resulting from different levels of hedging.

Crop Revenue Coverage and Revenue Assurance (Harvest Price Option)

Crop Revenue Coverage and Revenue Assurance with the harvest price option have revenue guarantees that increase if prices rise. This guarantee increase provision allows for aggressive hedging. Hedging up to the coverage level of the insurance policy will not increase risk. For example, a farmer with an 85 percent coverage level could hedge up to 85 percent of the APH yield without increasing risk. Hedging 25 percent of the APH yield, however, obtains most of the risk reductions associated with hedging.

RISK IMPACTS OF PRE-HARVEST HEDGING FOR:

Crop Revenue Coverage and Revenue Assurance (with Harvest Price Option)

Amount of Hedge	Risk Impacts
0 to 25% of APH yield	Decrease risk
25 to 50% of APH yield	Decrease risk slightly
50% to coverage level	Stable
Above coverage level	Increase risk

The APH is the Actual Production History yield. The coverage level is the election made when signing up for the insurance product. In Illinois, it ranges between 50 and 85 percent of the APH yield.

Income Protection and Revenue Assurance (Base Price Option)

Both Income Protection and Revenue Assurance with the base price option do not have guarantee increase provisions. Because the guarantee does not increase, hedging will not reduce risk. Moreover, hedging above 25 percent of the APH yield will increase risk. With these two products, selling futures contracts or forward contracting grain prior to harvest should be undertaken with caution.

RISK IMPACTS OF PRE-HARVEST HEDGING FOR:

Income Protection and Revenue Assurance (with Base Price Option)

Amount of Hedge	Risk Impacts
0 to 25% of APH yield	Stable
Above 25%	Increase risk

The APH is the Actual Production History yield. The coverage level is the election made when signing up for the insurance product.

Actual Production History

Actual Production History (APH) is yield insurance. Hedging with APH will generally reduce risk. Most of the risk reduction is associated with hedging up to 30 percent of reduction. Hedging more than the coverage level of the insurance policy will increase risk.

RISK IMPACTS OF PRE-HARVEST HEDGING FOR:

Actual Production History

Amount of Hedge	Risk Impacts
0 to 30 % of APH	Decrease risk
30 to 50% of APH	Decrease risk slightly
50 to coverage level	Stable
Above coverage level	Increase risk

The APH is the Actual Production History yield. The coverage level is the election made when signing up for the insurance product.

Summary

The above results only deal with risk impacts. Aggressive hedging may not be called for even though some insurance products allow for aggressive hedging. Costs of hedging and grain price outlook should also impact hedging decisions.

The above results only apply to hedging by forward contracting grain or by selling futures contracts. Other types of marketing contracts can have different results. Using options contracts to take traditional hedging positions (e.g., buying put options or selling grain using minimum price contracts) will not increase risk no matter how much of expected production is hedged. More speculative types of marketing strategies (e.g., spread strategies) may increase risk more quickly than traditional hedging strategies.

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