



Big Country Farms ponders risk management strategies

Big Country Farms, operated by John and Jen Colpher, is a dryland wheat farm with some irrigated wheat and dryland sunflower acreage. The Colphers purchased the 5,000 acre farm from John's father in 1960. The wheat is managed as a wheat-fallow rotation on 2,500 dryland acres and 240 acres of sprinkler-irrigated wheat. The Colphers have averaged 27 bushels per acre on the dryland wheat and 85 bushels per acre on their irrigated wheat for the past 10 years.

Hail and drought are the couple's primary risk management concerns, but they are also concerned with volatile commodity markets. Although they have experienced severe drought on and off for eight years, it is just now beginning to affect irrigation water. The risks associated with large swings in wheat prices have also created increased

anxiety regarding their current level of risk protection.

In the past, the Colphers have simply purchased multi-peril crop insurance (MPCI) policies to insure a certain yield level on all their crops. Now John believes this strategy leaves them carrying more risk than they are comfortable with. This year, the Colphers have considered several new options to protect a minimum revenue level for the farm:

1. Continue insuring with MPCI Yield Protection.
2. Utilize a new option for MPCI with Revenue Protection and Harvest Price Exclusion.
3. Rent the irrigated farmland to a neighbor for \$90 per acre.
4. Consider a more diverse crop mix that could include peas, sunflowers, or millet.

After much discussion, the Colphers settled on a two-part strategy that included MPC I Revenue Protection with Harvest Price Exclusion (RP-HPE). This strategy allowed them to cover their production and price risks without renting land, changing the crop mix, or making further equipment investments.



Revenue Protection with Harvest Price Exclusion Policy

The Colphers actual production history (APH) yield for irrigated wheat was 72.3 bushels per acre and 22.9 bushels per acre for dryland wheat. These figures formed the basis for their revenue guarantee (Table 1). As part of their RP-HPE policy, they elected to carry the maximum available coverage for their area of 85 percent yield protection at the projected price of \$6.95 per bushel. (The projected price is set by the Federal Crop Insurance Corporation following the Commodity Exchange Price Provisions.) This resulted in a yield guarantee of 61.46 bushels per acre irrigated and 19.47 bushels per acre dryland. These yield figures multiplied by the projected price resulted in a revenue protection guarantee per acre of \$427.15 irrigated and \$135.32 dryland.

Unfortunately, the next crop year brought two major events for Big Country Farms. The drought lowered the Colphers' wheat yields to 15 bushels per acre on dryland and 45 bushels per acre on irrigated ground. Additionally, the Black Sea wheat crop did not collapse as anticipated and instead flooded the world markets, resulting in wheat prices falling from \$7 to \$4.50 per bushel in a matter of weeks.

Table 2 compares the Colphers' crop insurance strategy using RP-HPE to an insurance plan that offered only yield protection and no crop insurance at all. There is a substantial difference in revenue when comparing coverage for yield reductions only versus insuring against both yield and price reductions – \$26,460 over 240 acres of irrigated wheat and \$91,875 for 2,500 acres of dryland wheat. Even a substantial premium cost seems reasonable when faced with such a severe revenue loss.

Beyond crop insurance

In addition to insurance payments, the Colphers might also be eligible for a payment under available disaster assistance programs. Participation in these programs in recent years has required enrollment in a federally-backed crop insurance program or Non-insured Crop Disaster Assistance Program



Table 1. Production and guarantee information.

	Irrigated wheat	Dryland wheat
APH yield (bushels per acre)	72.3	22.9
Yield guarantee (85%) (bushels per acre)	61.46	19.47
Projected price per bushel (100%)	\$6.95	\$6.95
Revenue Protection Guarantee (per acre)	\$427.15	\$135.32
Actual yield (bushels per acre)	45	15
Actual revenue (per acre) (harvest price \$4.50 per bushel)	\$202.50	\$67.50

Table 2. Revenue comparison of crop insurance options in total revenue per acre and total acreage.

	Revenue Protection with Harvest Price Exclusion	Yield Protection at 100 percent of the projected price*	No insurance
Irrigated wheat:			
Indemnity per acre	\$224.65	\$114.40	\$0.00
Total revenue per acre	\$427.15	\$316.90	\$202.50
Total revenue (240 acres)	\$102,515.28	\$76,055.28	\$48,600.00
Dryland wheat:			
Indemnity per acre	\$67.82	\$31.07	\$0.00
Total revenue per acre	\$135.32	\$98.57	\$67.50
Total revenue (2,500 acres)	\$338,291.25	\$246,416.25	\$168,750.00
Whole farm revenue – irrigated + dryland wheat	\$440,806.53	\$322,471.53	\$217,350.00

* The projected price is set following the Commodity Exchange Price Provisions and the producer has the option of selecting a percentage of the projected price for yield protection coverage.

(NAP) for all economically significant crops – those that contribute at least 5 percent of the total farm revenue.

Disaster assistance programs can provide significant assistance in cases where large losses are experienced. The details of these programs should be carefully considered in conjunction with levels of participation in crop insurance products when evaluating any risk management strategy.

By purchasing MPC1, the Colphers covered a substantial portion of their risk exposure. Though the farm still suffered a financial loss, it was not nearly as devastating as it could have been if they had gambled with the “no insurance” risk management option. Saving a significant amount of money on premium costs is always a temptation; however,

this alternative is not always the most effective in managing or eliminating future production risk.

For more information on insurance products, see the RMA website at www.rma.usda.gov. For information on other risk management topics, visit the “Resources” tab at RightRisk.org.



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