



Riff Brothers Farms minimizes financial loss with multi-peril crop insurance

Big Horn County farmers Ken and Rich Riff of Riff Brothers Farms manage 600 acres of dry beans, sugar beets, and barley. Commodity prices are high, and the coming production season has the potential for those prices to hold into the fall. Input prices are at or near historical highs and the Riffs are looking to guarantee a certain revenue level to protect their bottom line. Big Horn County is recovering from a recent drought, and the Riffs are concerned severe weather may return. In looking at their 240 acres of dry beans (120 acres each of pintos and northern), they have outlined the following risk management options:

1. No insurance. The Riffs have taken chances in the past and come out ahead.
2. Catastrophic coverage (CAT) as part of a yield protection (YP) insurance policy. This policy is low cost (\$300 per crop)

and uses the farm's actual production history (APH) to insure against losses of 50 percent or greater.

3. Multi-peril crop insurance (MPCI). The Riffs could choose to insure 50 to 75 percent of their APH yield at 67 to 100 percent of the harvest price.

After careful consideration of their options (Table 1), the Riff brothers chose to purchase an MPCI policy for their dry bean acreage. They believed CAT coverage would be insufficient – not allowing them to even cover production costs. They elected to insure with MPCI at 75 percent coverage and 100 percent harvest price levels. The premium turned out to be \$20 per acre.

The Riff brothers' APH yield was 2,100 pounds per acre for both pinto and great northern beans. They chose to insure all 120 acres of each crop with MPCI at the

Table 1. Dry bean risk management strategies compared.

| Option | APH yield | Guarantee level | Price | Total guarantee | Premium (per acre) | Expected net (per acre) |
|-----------------------|-----------|-----------------|--------|-----------------|--------------------|-------------------------|
| No insurance: | | | | | | |
| Northerns | 2,100 | 0 | \$0.32 | 0 | 0 | \$672.00 |
| Pintos | 2,100 | 0 | \$0.30 | 0 | 0 | \$630.00 |
| CAT coverage: | | | | | | |
| Northerns | 2,100 | 50% | \$0.32 | \$184.80 | \$2.50 | \$669.50 |
| Pintos | 2,100 | 50% | \$0.30 | \$173.25 | \$2.50 | \$627.50 |
| MPCI coverage: | | | | | | |
| Northerns | 2,100 | 75% | \$0.32 | \$504.00 | \$20.00 | \$652.00 |
| Pintos | 2,100 | 75% | \$0.30 | \$472.50 | \$20.00 | \$610.00 |

75 percent coverage level and 100 percent of the price – \$.32 per lb for northerns and \$.30 per lb for pintos. This coverage resulted in a total guarantee per acre of \$504 for northerns and \$472.50 for pintos (price multiplied by coverage level multiplied by APH yield).

Shortly after crop emergence, Riff Brothers Farms received several bouts of torrential rain and hail that affected yields in two ways. For six weeks, the center pivot irrigation system was unusable due to standing water in the fields. The lack of irrigation resulted in a pinto bean yield of 450 pounds per

acre. While the northerns fared somewhat better, the yield was still low at 850 pounds per acre due to stand loss from the hail. The crops were damaged, but not badly enough to result in a total loss. The indemnity payments are calculated in Table 2.

Beyond crop insurance

In addition to insurance payments, the Riffs 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 (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 MPCI, the Riffs covered a substantial portion of their production risk. Though the brothers 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.





Table 2. Dry bean indemnity calculation.

| Crop | Coverage level | Total guarantee | Price | Premium (per acre) | Actual yield | Indemnity (per acre) | Actual net (per acre) |
|------------------------------|----------------|-----------------|--------|--------------------|--------------|----------------------|-----------------------|
| <u>No insurance:</u> | | | | | | | |
| Northerns | - | - | \$0.32 | - | 850 | - | \$272.00 |
| Pintos | - | - | \$0.30 | - | 450 | - | \$135.00 |
| <u>CAT coverage:</u> | | | | | | | |
| Northerns | 50% | 184.80 | \$0.32 | \$2.50 | 850 | \$35.20 | \$304.70 |
| Pintos | 50% | 173.25 | \$0.30 | \$2.50 | 450 | \$99.00 | \$231.50 |
| <u>MPCI coverage:</u> | | | | | | | |
| Northerns | 75% | 504.00 | \$0.32 | \$20.00 | 850 | \$232.00 | \$484.00 |
| Pintos | 75% | 472.50 | \$0.30 | \$20.00 | 450 | \$337.50 | \$452.50 |

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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