RISK MANAGEMENT PROFILES

Managing price risk on the Z-F Ranch

Nestled in the heart of Fremont County, the Z-F Ranch runs 300 pairs and 150 yearling steers. From these numbers, owners Bob and Betsy Zomer typically sell 100 head of 500-pound heifer calves and 150 head of 900-pound yearling steers every fall.

Although pleased with last year's near-record prices, the Zomers wanted to ensure or lock-in the record cattle prices this year. When they sat down to assess their marketing risks, the Zomers considered several options:

1. Utilize forward contracts or pricing, either direct or video auction. While historically prices for fall delivery have been high, Bob believes they are undervalued compared with prices today.
2. Utilize the futures market, either hedging cattle or using options. As with the forward contracting option, the Zomers are concerned with limiting their upside price potential.
3. Use a Livestock Risk Protection (LRP) insurance policy under the Federal Crop Insurance Corporation Program. LRP protects producers against falling prices based on a national index of current and expected prices.

The Zomers considered their options at length and decided to go with a fourth strategy: do nothing and wait until fall to sell the cattle. They decided the costs associated with their risk management options were too high, both for the LRP contract and the potential margin calls with the futures market. The Zomers were convinced the high cattle prices would hold.

Unfortunately, late summer flooding in the Midwest and an overall shortage of corn and feed grains forced corn prices to $9 per bushel that year. Coupled with a sharp slowdown in the economy, this caused the bottom to fall out of feeder and fed cattle

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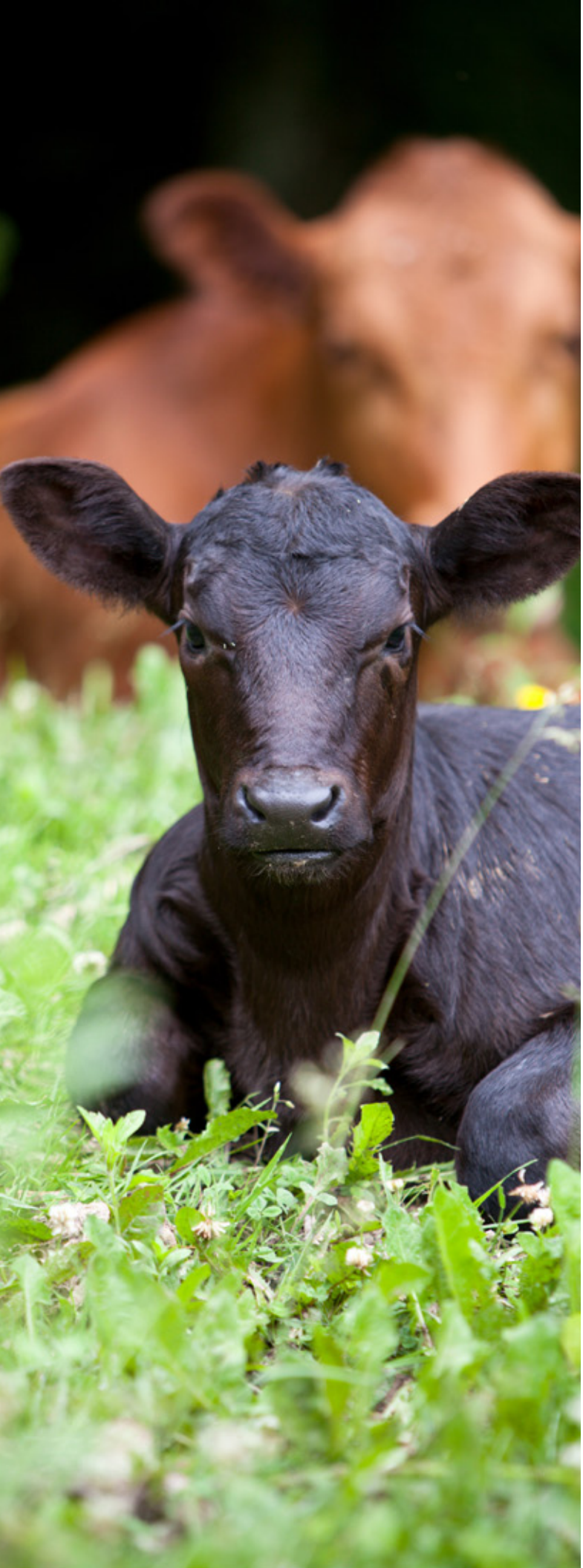

markets. In hindsight, the LRP alternative may have been better for the Zomers.

LRP is designed to protect against declines in price for a wide range of livestock, including feeder cattle. Prices for coverage are determined by a Chicago Mercantile Exchange (CME) index, and indemnities are paid if the ending value drops below the insured value (determined by the coverage price at the time the policy was taken out). Contracts are available from 13, 17, 21, 26, 30, 34, 39, 43, 47, or 52 weeks; they vary from 70 to 100 percent of the coverage price.

The LRP policy the Zomers might have used was a 21-week policy for both their heifer calves and yearling steers. Using the cost estimator under "Quick Links" on the RMA website, www.rma.usda.gov, the 21-week policy had an expected ending value of $136.77 for the steers and heifers. Assuming an 83 percent coverage level, the coverage price was $113.88. The Zomers would have received an indemnity only if the ending value of the contract was lower than this value. The Zomers' premium would have been $1.223 per cwt insured. Assuming they would have insured 1,850 total cwt, premium costs would have totaled $2,262.55. After subtracting the 13 percent premium subsidy ($294.13), the total premium would have been $1,968.42.

Table 1 shows the various feeder cattle price levels and values of the potential LRP indemnities, assuming actual cash prices had declined to $95 per cwt. With LRP coverage in place, the situation could have resulted in an indemnity payment of nearly $33,000 after premium costs.

The Zomers also had the opportunity to forward contract their cattle for September delivery. Their yearling steers could have been sold for $110 per cwt and $140 per cwt for the heifers or an average price received of $118.11 per cwt. The Zomers felt the price offered was too low, mainly due to a high basis, and they were reluctant to eliminate any upside potential where cash prices in the spring were averaging $160 per cwt.

Table 1. Feeder cattle price levels compared with potential LRP payments.

Actual cash price (per cwt)	Coverage price (per cwt)	Actual ending value (per cwt)	Indemnity payment	Premium cost	Net indemnity payment
$120.00	$113.88	$222,000.00	$0.00	$1,968.42	($1,968.42)
$110.00	$113.88	$203,500.00	$7,178.00	$1,968.42	$5,209.58
$100.00	$113.88	$185,000.00	$25,678.00	$1,968.42	$23,709.58
$95.00	$113.88	$175,750.00	$34,928.00	$1,968.42	$32,959.58
$90.00	$113.88	$166,500.00	$44,178.00	$1,968.42	$42,209.58

When the Zomers were deciding their marketing plan, they also looked at purchasing futures contracts or put options for their cattle and selling in September. A put option is a futures contract that a producer has the "option" of exercising (selling) for a price (or premium). The Zomers thought this strategy would be a better alternative than straight futures contracts because there would be no margin deposit requirements; with a put option, the margin price is essentially built into the price of the contract.

At that time, the September feeder cattle put options were trading at $135 per cwt for a $11.50 per cwt premium in the spring. For 1,850 total cwt to be marketed, the Zomers would need to purchase four September put option contracts (50,000 lbs each). This would have cost them a total of $23,000 in premiums. That fall, the September contract was trading at $105 per cwt, resulting in a gain of $60,000 (by selling four contracts in the spring at $135 and buying them back for $105).

Table 2. Potential strategies for Z-F Ranch.

Assume average fall cash price of $95.00/cwt; futures contract price of $105.00/cwt.

Strategy	Per cwt cost/ basis cost	Total cost	Price level (per cwt)	Total revenue	Net revenue
Sell cash cattle in fall	$0.00	$0.00	$95.00	$175,750.00	$175,750.00
Use LRP contract	$1.22	$1,968.42	$113.88	$210,678.00	$208,709.58
Use forward contract	$0.00	$0.00	$118.18	$218,633.00	$218,633.00
Use put option	$11.50	$23,000.00	$135.00	$235,750.00	$212,750.00

The results of the Zomers' potential strategies are shown in Table 2. While the Zomers did not have any increased costs associated with their cash marketing strategy, they also earned the lowest total revenue. Their goal should have been made clearer in the beginning stages of their planning process. If the goal was to maximize the price regardless of cost, then the futures strategy would have been best. If the goal was to provide protection against downside price risk, then either the LRP or forward contract should have been followed.

The LRP policy would have been most effective in terms of risk protection provided per dollar of premium cost. While a forward contract has essentially no out-of-pocket costs, the cost comes in the form of basis differences and liquidating the cash position – thereby eliminating any upside price potential.

In the Zomers' situation, the LRP policy would have provided protection against both downside price risk and the potential to gain from increasing prices for a relatively low cost per cwt. While the option contract ending price was higher, the premium cost was over $20,000 more than with the LRP policy.

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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