

Livestock Risk Protection

Overview

- Livestock Risk Protection (LRP) insurance is a single-peril insurance program offered by the Risk Management Agency (RMA) of USDA through commercial crop or livestock insurance vendors.
- An LRP policy protects producers from adverse price changes in the underlying livestock market.
- LRP is currently available in all counties of 37 states.

How LRP Works

- A producer must submit an LRP policy application through an authorized crop or livestock insurance vendor.
- Insurance vendors must have completed an RMA training program to become authorized.
- The application process establishes a producer's eligibility by documenting his or her substantial beneficial interest in the cattle. A producer with a partial interest in a group or pen of cattle may independently insure his or her portion.
- After completing the policy application, producers select a coverage price and endorsement length that meets their risk management objectives.
- The coverage price is a percentage of the expected ending value. This value and the associated rates are based on the current day's closing futures prices, volume and volatility; they correspond to separate endorsement lengths.

How LRP Works *cont.*

- Endorsement lengths are in increments of about 30 days from 13 to 52 weeks. Both feeder cattle and fed cattle producers will want to purchase price risk insurance with an ending date of coverage that meets their risk management objectives.
- Feeder cattle producers may want the end date of coverage to match the expected date the cattle will be sold or moved to a feedlot.
- Fed cattle producers, on the other hand, will want to match the ending date of coverage with the anticipated date the cattle will be ready for slaughter.

How LRP Works *cont.*

- LRP coverage does not begin until a Specific Coverage Endorsement (SCE) is submitted and accepted by RMA. The submission of the SCE to the RMA is done online after the application has been accepted. The SCE specifies the elected coverage price, the specific number of head covered, and the length of coverage.
- LRP policies require that sales be allowed from the time rates are set and validated to 9:00 a.m. Central time the following day. Once the SCE is accepted, the coverage is in place and a premium is due. If, at the ending date of coverage, the Actual End Value has dropped below the selected coverage price, the producer can claim an indemnity but must file for it within 60 days. The indemnity will be paid whether or not the cattle were sold by the ending date of coverage. However, selling the cattle more than 30 days before the end of coverage will terminate the policy unless the insurance provider has specifically approved the sale. Cattle seized, quarantined, destroyed or not salable because of death or disease will still be covered by the policy if written notice of the circumstances is provided within 72 hours.

How LRP Works *cont.*

- It is crucial for producers to understand that the ending value of the LRP contract is not the cash price received or a closing futures price as of the end date of the policy.
- The LRP-Feeder Cattle policy uses the Chicago Mercantile Exchange feeder cattle price index as the actual end value. This cash-settled commodity index is a mathematical calculation that averages the headcounts, weights and prices from numerous livestock sales across the nation to determine its settlement price.
- The LRP-Fed Cattle policy uses a weekly weighted average of the slaughter cattle prices in five areas as reported by the Agricultural Marketing Service.

Contract Specifics

- Feeder cattle policies insure all feeder cattle weighing up to 900 pounds. They will cover heifers and Brahma and dairy breeds. A fixed percentage price adjustment factor (PAF) is used to adjust the expected ending values and coverage price from standard weight, beef breed feeder cattle for various combinations of lightweight heifers or non-beef breeds.
- LRP-Fed Cattle policies provide coverage for fed cattle that will weigh 1,000 to 1,400 pounds at slaughter.

Table 1. Key LRP Web sites

LRP agent locator	http://www3.rma.usda.gov/apps/agents/
LRP premium locator	http://www3.rma.usda.gov/apps/premcalc/
Endorsement lengths, coverage prices, rates and end dates	http://www3.rma.usda.gov/apps/livestock_reports/main.aspx
CME Feeder Cattle Index	http://www.cme.com/trading/dta/hist/cash_settled_commodity_prices.html
AMS five-area, weekly weighted average for direct slaughter cattle	http://www.ams.usda.gov/mnreports/lm_ct150.txt

Table 2. Price Adjustment Factor for LRP-Feeder Cattle Contracts

Weight range	Steers	Heifers	Brahman	Dairy
<6.0 cwt.	110%	100%	100%	100%
6.0 – 9.0 cwt.	100%	90%	90%	80%

Table 3. Contract Specifics for LRP-Fed Cattle and LRP-Feeder Cattle policies

	LRP-Fed Cattle	LRP-Feeder Cattle
Insurable Cattle	Yield Grade 1 to 3, 10 to 14 cwt.	Heifers and steers, Up to 9 cwt.
End value based on (revised daily)	5-area weekly weighted average for slaughter cattle as reported by AMS	CMW feeder cattle index
Authorized endorsement length	13 to 52 weeks	13 to 52 weeks
Coverage Levels	70 to 100%	70 to 100%
Premium subsidy	13%	13%
Maximum head insured per SCE	2,000	1,000
Maximum insured per crop year	4,000	2,000

Example 1. LRP-Feeder Cattle for a West Texas Cow-calf Producer

In mid-October, the owner of a 340-head cow-calf operation is buying an LRP-Feeder Cattle policy for his current calf crop. The calves are typically weaned (88 percent calf crop) about September 15 each year and carried over to the middle of January before the producer decides whether to market them, retain ownership for additional winter grazing, or move them to a feedlot. It is estimated that by mid-January the steer calves will average 700 pounds and the heifers will average 650 pounds. Coverage will be purchased on all of the heifers, including those that will be retained as replacements. This producer has no partners and owns 100 percent of the calves. This producer will use actuarial data from the RMA on October 15, 2007, which is shown in Table 4.

Table 4. LRP Expected End Values, Coverage Prices, Levels, Rates, and Contract End Dates for October 15, 2007

Livestock type	Expected end value	Coverage price	Coverage level	Rate	Cost per Cwt.	End Date
Steers	\$113.819	\$107.97	.9486	.014411	\$1.556	01/14/2008
Heifers	\$102.437	\$97.17	.9486	.014411	\$1.40	01/14/2008

Table 5. The Insured Value Calculation

(The Insured Value = Number of Head multiplied by the Target Weight (live weight, in cwt) multiplied by the Coverage Price multiplied by Ownership Share.

Number of head (whole number)	X	Target weight at end date (cwt per head)	X	Coverage price (as shown on Table 4)	X	Insured Share (x.xxxx)	=	Insured Value (\$)
150 steers	X	7.00 cwt	X	\$107.97	X	1.00	=	\$113,369
150 heifers	X	6.50 cwt	X	\$97.17	X	1.00	=	\$94,741
Total insured value							=	\$208,110

Table 6. The Total Premium Calculation

(The Total Premium = Insured Value multiplied by the Rate)

Insured value (\$)		x	Rate (as shown in Table 4)	=	Total premium (\$)
Steers	\$113,369	x	.014411	=	\$1,634
Heifers	\$94,741	x	.014411	=	\$1,365
Total premium				=	\$2,999

Table 7. The Subsidy Calculation
(The Subsidy = Total Premium multiplied by the Subsidy Rate)

Total premium (\$)	X	Subsidy (percent)	=	Subsidy (\$)
\$2,999	X	.130	=	\$390

Table 8. The Producer Premium Calculation
(The Producer Premium = Total Premium minus the Subsidy)

Total Premium (\$)	x	Subsidy (\$)	=	Producer Premium (\$)
\$2,999	x	\$390	=	\$2,609

Indemnity Calculation

Assume that on the end date of coverage, the CME feeder cattle index has dropped to \$103.50 per cwt. Since the actual ending value is less than the coverage price ($\$107.97 - \$103.50 = \$4.47$), an indemnity is due the producer on the insured steers. The PAF for heifers is applied to the actual ending value ($\$103.50 \times 90\% = \93.15). Again, an indemnity is due on the heifer calves ($\$97.17 - \$93.15 = \$4.02$). The indemnity is equal to the number of head multiplied by the target weight (in cwt as defined in the specific coverage endorsements), multiplied by the difference between the coverage price and the actual ending value (in dollars per cwt), and then multiplied by ownership share (percentage).

Table 9. Indemnity Calculation

Number of head (whole number)	x	Target weight at end date (cwt per head)	x	Coverage price minus Actual ending value	x	Insured Share (x.xxxx)	=	Indemnity (\$)
150 steers	x	7.00 cwt	x	\$4.47	x	1.00	=	\$4,693
150 heifers	x	6.50 cwt	x	\$4.02	x	1.00	=	\$3,919
Total indemnity							=	\$8,612

Attractive Attributes of LRP Policies

- The fact that policies will be sold at the rates (\$ cost per cwt) quoted on the RMA website will appeal to producers who have tried to purchase a CME put option but failed because of light trading on that particular day or simply not being able to get an order placed and filled at the desired price.
- LRP policies can be tailored to fit producers of different sizes.
- The subsidized premium of an LRP policy may also appeal to producers.

Disadvantages of LRP Policies

- LRP is basically an insurance policy. Once this policy has been purchased and is in place, it cannot be offset or exercised until the end date of coverage.
- Local basis risk is still an issue facing producers who use LRP policies. Increased investor interest in the commodity markets may be widening local basis and making it less predictable. The difference in basis is not likely to increase the utility of LRP to Texas producers.
- Feeder cattle producers who want to buy coverage at the same time cattle are purchased and producers who want to buy LRP coverage at the most distant end dates of coverage may find their choices of coverage prices limited.
- RMA also retains the right to suspend the sale of LRP policies if the market becomes unstable.

Summary

- LRP is an insurance tool that may help with risk management role once a producer identifies his risk management objectives (risk tolerance, cost parameters, etc.) and understands the limitations of LRP.
- Producers will need to learn to evaluate LRP in comparison with other risk management strategies that use CME futures and option contracts at different periods in the production cycle.
- LRP policies are intended to insure against a drop in the underlying livestock market.
- LRP policies also do not guarantee a cash price or basis level for the local market.