Livestock Risk Protection (LRP) Insurance

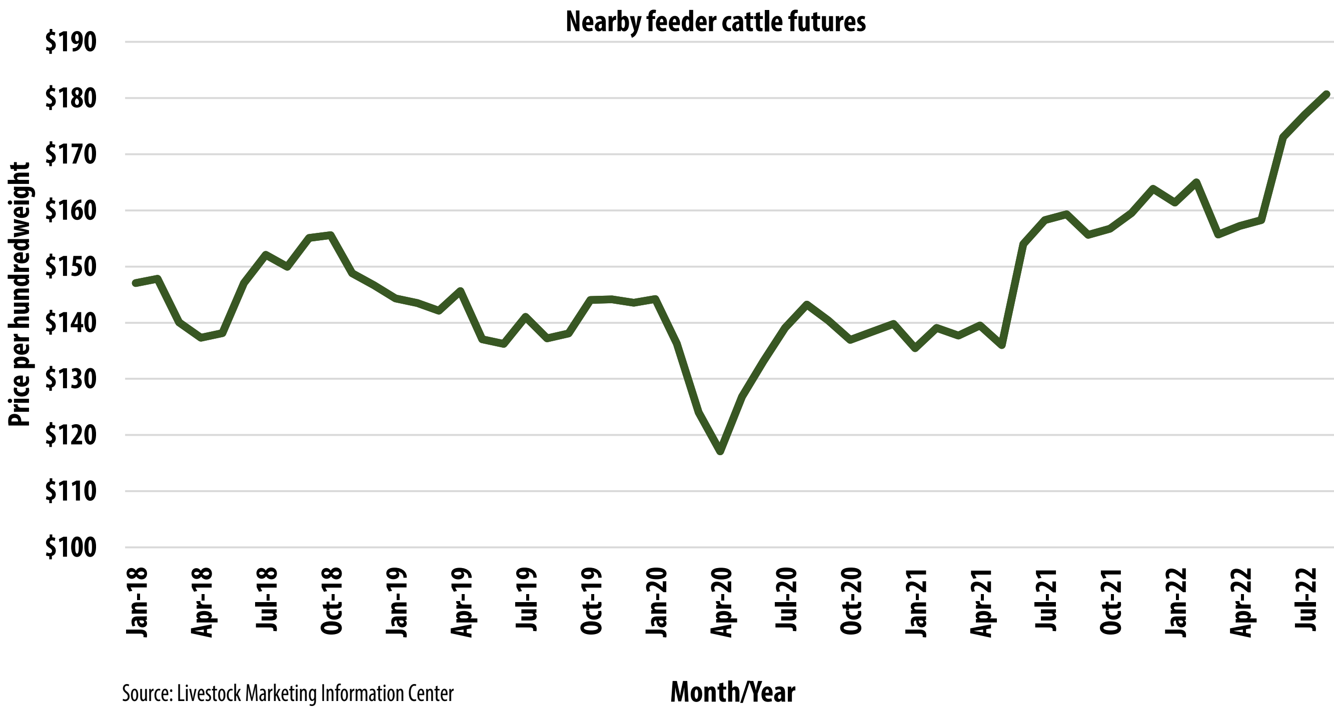

Figure 1. Nearby feeder cattle futures demonstrate that price volatility can present a challenge to livestock producers.

Livestock risk protection (LRP) insurance offers producers a way to manage risk associated with declining livestock prices (see Figure 1 for feeder cattle future prices). It does not protect against other perils such as disease or death. The U.S. Department of Agriculture's (USDA) Risk Management Agency (RMA) administers LRP insurance products. It is sold by approved livestock insurance agents throughout the year (running from July 1 to June 30). LRP premiums may be subsidized by the federal government if the producer meets conservation compliance. Policies are available in Missouri for feeder cattle, fed cattle and swine. Insured producers receive an indemnity when the actual ending value of livestock, as determined by RMA, is less than the coverage price chosen by the producer.

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How LRP insurance works

A producer must use an agent authorized to sell livestock insurance. The producer fills out an application to determine eligibility. Once the application is accepted by USDA, the producer may begin the process of purchasing a specific coverage endorsement (SCE). An SCE requires specific information regarding the livestock to be insured:

- Number, livestock type and target weights
- End date (based on insurance period)
- Coverage price
- Ownership share (percent)

Producers indicate the type of livestock to be covered and estimate their target weights at the end of the insurance period. Breed, sex and target weight category will adjust coverage prices for feeder cattle. The end date should be close to when livestock are to be marketed or reach desired weight. The coverage price is a percentage of the livestock's expected ending value at a contract's expiration date. Producers must also indicate their share of ownership (must be greater than 10 percent), which adjusts the insured value accordingly.

When can you buy a policy?

Feeder cattle, fed cattle and swine policies can be normally bought on any weekday, excluding holidays. The time frame for purchasing an SCE starts at 3:30 p.m. and lasts until 9 a.m. Central Time the next morning. Coverage and prices are determined daily by a series of data sets and calculators on the RMA website. If the RMA website offers no coverage and prices, producers will be unable to purchase LRP insurance for that day. The RMA also reserves the right to suspend sales at any time due to market limitations or volatility.

Premiums

Premiums are paid at the end of the endorsement period, a change in recent years. Premium costs increase when selecting higher coverage levels and longer insurance periods. Premium costs are subsidized by the federal government, but the producer must be in conservation compliance to qualify. The percent of subsidy varies by the coverage level selected:

- 55 percent (70 to 79.9 percent coverage level)
- 50 percent (80 to 84.9 percent coverage level)
- 45 percent (85 to 89.9 percent coverage level)
- 40 percent (90 to 94.9 percent coverage level)
- 35 percent (95 to 100 percent coverage level)

Premiums are calculated in a multistep process detailed below. LRP coverage prices, rates, and producer premium costs (rma.usda.gov/en/Information-Tools/Livestock-Reports) are publicly reported by RMA.

Step 1. Calculate insured value.

Number of head	x	End weight *(cwt/head)*	x	Coverage price	x	Insured share	=	Insured value
	x		x		x		=	

Step 2. Calculate total premium.

Insured value	x	Actuarial rate	=	Total premium
	x		=	

Step 3. Calculate subsidy.

Total premium	x	Subsidy rate *(percent)*	=	Total subsidy
	x		=	

Step 4. Calculate producer premium.

Total premium	-	Total subsidy	=	Total producer premium
	-		=	

Indemnity

Indemnities are paid at the end of the insurance period. Payments are based on the difference between the actual ending value and the coverage price selected by the producer. If the actual ending value is higher than the coverage price, no indemnity will be paid. To collect the indemnity, a claim form must be submitted within 60 days of the policy's end date. Proof of ownership is required before the indemnity is paid. Payments will be made within 30 days of a properly filed claim.

If the livestock is sold more than 60 days before the contract end date, producers cannot receive an indemnity and they do not get the premium payment back unless their share is properly transferred. Any animals that die or are quarantined during the insurance period should be reported within 72 hours to avoid reducing the endorsement.

Feeder cattle policy

LRP insurance for feeder cattle can provide coverage for steers, heifers, predominantly Brahman or predominantly dairy cattle (Table 1). Ending weights can be between 100 to 599 pounds (Weight 1) or between 600 and 1,000 pounds (Weight 2). Producers select an available insurance period (ranging from 13 to 52 weeks) close to when they expect to market their cattle. Feeder cattle producers can select a coverage price ranging from 70 to 100 percent of the expected ending value. A maximum of 12,000 head of feeder cattle can be insured under a single SCE, and only 25,000 head between the period July 1 to June 30.

LRP insurance uses the Chicago Mercantile Exchange (CME) feeder cattle index to set ending values. This index uses feeder cattle transactions and reports from 12 major feeder cattle states (including Missouri). A price adjustment factor (Table 2) is used to calculate the coverage price and ending value for the livestock type from the cattle index.

Table 1. LRP feeder cattle snapshot.

Type of cattle	Steers, heifers, Brahman or dairy (born and unborn)
Selling weights	100 to 599 lbs. or 600 to 1,000 lbs.
Insurance period	13, 17, 21, 26, 30, 34, 39, 43, 47 or 52 weeks
Coverage level	70 to 100%
Ending value base	CME feeder cattle index
Maximum per SCE	12,000 head
Maximum per year	25,000 head

Table 2. Price adjustment factors for feeder cattle.

Cattle type	Weight 1 *(100–599 lbs.)*	Weight 2 *(600–1,000 lbs.)*
Steers	110%	100%
Heifers	100%	90%
Unborn steers or heifers	105%	N/A
Predominantly Brahman	100%	90%
Unborn predominantly Brahman	100%	N/A
Predominantly dairy	50%	50%
Unborn predominantly dairy	50%	N/A

Fed cattle policy

A fed cattle policy is fairly similar to a feeder cattle policy. Steers and heifers expected to finish select or higher quality grade, and yield grade one to three are insurable (Table 3).

Insured fed cattle must weigh between 1,000 and 1,600 pounds live weight when marketed for slaughter at the end of the insurance period. Producers select an available insurance period (ranging from 13 to 52 weeks) closest to when they will market their cattle. Fed cattle producers can select a coverage price from 70 to 100 percent of the expected ending value. This policy can insure up to 12,000 head under a single SCE. A total of 25,000 head between the period July 1 to June 30 can be insured.

The price of fed cattle (expected and actual ending value) in the LRP policy are determined by the five area weekly weighted average direct slaughter cattle (mymarketnews.ams.usda.gov/viewReport/2477) price reported by the USDA Agricultural Marketing Service. The price category represents live basis steer sales, 35 to 65 percent choice.

Table 3. LRP fed cattle snapshot.

Type of cattle	Any heifers or steers
Selling weights	1,000 to 1,600 lbs.
Insurance period	13, 17, 21, 26, 30, 34, 39, 43, 47 or 52 weeks
Coverage level	70 to 100%
Ending value base	Five area weekly weighted average direct slaughter cattle, steers, 35–65% choice
Maximum per SCE	12,000 head
Maximum per year	25,000 head

Swine policy

LRP swine policies allow producers to insure market hogs (born and unborn) as detailed in Table 4. Target weight requirements dictate that swine under LRP coverage must weigh between 140 and 260 pounds on a lean (dressed weight) basis. To convert to live weight, use the lean conversion factor of 0.74. This adjustment would reflect live weights of 189 to 351 pounds. Insurance periods are offered for unborn swine before the SCE (up to 52 weeks) and swine born before the SCE (up to 30 weeks). Swine producers can select a coverage price of 70 to 100 percent of the expected ending value. Contract and yearly limits state that 70,000 head can be covered under a single SCE, and 750,000 head can be insured between the period July 1 to June 30.

Swine expected and actual end values are based on the price series used to settle the CME lean hog futures contract. This weighted average price is derived from two producer sold data series (mymarketnews.ams.usda.gov/viewReport/2511) — negotiated and swine or pork market formula prices — reported by the USDA Agricultural Marketing Service.

Table 4. LRP swine snapshot.

Type of swine	Market hogs
Selling weights	189 to 351 lbs. (live) 140 to 260 lbs. (lean)
Insurance period	13, 17, 21, 26 or 30 weeks (born) 30, 34, 39, 43, 47 or 52 weeks (unborn)
Coverage level	70 to 100%
Ending value base	Weighted average price of lean hogs (based on negotiated and swine or pork market formula price data series)
Maximum per SCE	70,000 head
Maximum per year	750,000 head

LRP example

A producer in Missouri plans to sell 100 feeder cattle steers at a target ending weight of 750 pounds each. This is estimated to occur closest to the 21-week insurance period. This person owns 100 percent of the cattle. After reviewing LRP quotes, the producer would like to select a coverage price of $170.630 (which is about a 93 percent coverage level). The price adjustment factor is 100 percent for steers in this weight range (see Table 2), so the coverage price remains $170.630 per hundredweight ($170.630 × 100 percent). Subsidy rate is 40 percent for a 93 percent coverage level. The LRP quote reports an actuarial rate of 0.014054.

Premium calculation

Step 1. Calculate insured value.

Number of head	x	End weight *(cwt/head)*	x	Coverage price	x	Insured share	=	Insured value
100	x	7.5	x	170.630	x	100%	=	$127,973

Step 2. Calculate total premium.

Insured value	x	Actuarial rate	=	Total premium
$127,973	x	0.014054	=	$1,799

Step 3. Calculate subsidy.

Total premium	x	Subsidy rate *(percent)*	=	Total subsidy
$1,799	x	40%	=	$720

Step 4. Calculate producer premium.

Total premium	-	Total subsidy	=	Total producer premium
$1,799	-	$720	=	$1,079

Indemnity calculation

Using the above example, the actual ending value is reported at $160 per hundredweight at the end of the insurance period. Use the following steps to determine your net gain or loss from an LRP plan.

Step 1. See if indemnity is due (none if negative).

Coverage price	-	Actual ending value	=	Indemnity *($ per cwt)*
170.630	-	160.00	=	$10.63

Step 2. Calculate indemnity payment.

Indemnity *($ per cwt)*	x	Total weight insured *(cwt)*	x	Insured share	=	Indemnity payment
$10.63	x	750	x	100%	=	$7,973

Step 3. Calculate net return to producer.

Indemnity payment	-	Total producer premium	=	Net gain from LRP plan
$7,973	-	$1,079	=	$6,894

Advantages of LRP

- Provides protection against declining livestock prices that could affect a farmer's ability to obtain a positive return.
- Allows producers flexibility in number of animals to insure—ranging from 1 head to the maximum head limitations per endorsement or year.
- Performs similarly to a put option in the futures market in protecting downside price risk.
- No broker commissions or margin calls.
- Coverage prices updated daily and coverage available in all months.
- Subsidies available to lower producer premium costs.
- Premiums due at the end of the insurance period.

Disadvantages of LRP

- Actual ending values are based on regional or national livestock prices. Basis risk exists, and producers need to understand their local market.
- Occasional unavailability of LRP policies due to market limitations or swings.
- Once LRP policies are accepted by RMA, producers are locked into coverage and selling timelines.

Resources

- Livestock agent locator (rma.usda.gov/Information-Tools/Agent-Locator-Page)
- LRP coverage prices, rates and ending values (rma.usda.gov/en/Information-Tools/Livestock-Reports)

The guide is for educational purposes only. The information in this guide does not replace or supersede any procedures or modify any provisions contained in the complete insurance policies.

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