Livestock Risk Protection (LRP) Program and the Livestock Gross Margin (LGM) Program

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Overview

The LRP program, subsidized by the USDA's Risk Management Agency (RMA), is an essential tool for cattle producers seeking to manage downside price risk. LRP functions similarly to a put option, allowing producers to establish a price floor for their cattle without forfeiting the opportunity to benefit from rising market prices. The LGM is a more sophisticated tool. It guarantees a minimum gross margin - the expected selling price of the cattle minus the expected costs of the major feed inputs (corn and soybean meal). It bundles the price risk and the feed cost risk into one policy.

Both the LRP and the LGM are essential risk management tools for livestock producers – and they are the topic of today's post.

The LRP - How it Works

Under the LRP, a producer purchases an LRP insurance policy, called a Specific Coverage Endorsement (SCE), choosing a coverage price (a percentage of the expected ending value) and an insurance period (13 to 52 weeks). This coverage price acts as a guaranteed minimum value for the cattle's market price. At the end of the insurance period, the actual market price (based on a national cash price index, such as the CME Feeder Cattle Index) is compared to the coverage price. If the actual market price falls below the coverage price, the producer receives an indemnity payment for the difference, offsetting the loss from the price decline. If the price remains high, no payment is issued, and the producer sells their cattle at the favorable market price. LRP offers flexibility as it can be purchased for small numbers of head, involves no margin calls (unlike futures contracts), and allows producers to align the coverage period with their anticipated marketing date. By setting a guaranteed minimum price, LRP stabilizes revenue, providing financial security against the cattle market's inherent volatility. LRP coverage prices and premium rates change daily based on the futures market, and they vary significantly based on the producer's specific choices.

The USDA provides a tiered premium subsidy based on the coverage level you choose. Generally, the lower the coverage level (meaning a lower price floor), the higher the subsidy percentage.

Coverage Level (Percentage of Expected Price)	Federal Subsidy
95% to 100%	35%
90% to 94.99%	40%
85% to 89.99%	45%
80% to 84.99%	50%
70% to 79.99%	55%

Note: Beginning and veteran farmers/ranchers generally receive an additional 10% premium subsidy.

The Coverage Price and Producer Premium are determined by the following four key factors, which change every day:

Factor	Description
1. Coverage Level	The price floor to be selected ranges from 70% to 100% of the expected ending value.
2. Insurance Period	The length of the contract (e.g., 13, 17, 21, up to 52 weeks). Longer periods generally have higher premiums due to increased market uncertainty.
3. Cattle Type/Weight	Feeder cattle are categorized by weight (e.g., Weight 1: 100–599 lbs or Weight 2: 600–1,000 lbs) and type (e.g., steer, heifer, Brahman, dairy). These factors use price adjustment factors to modify the base index price.
4. Market Volatility	The daily expected ending value and premium rates are tied directly to the relevant Chicago Mercantile Exchange (CME) futures contract prices.

The following is an example demonstrating a cattle producer's experience using LRP, with the market price falling below the coverage price:

Assumptions

- **Producer:** Jane Doe, a feeder cattle producer.
- Cattle Covered: 25 head of feeder steers.
- **Assumed Cattle Weight:** The policy is priced in pounds (cwt), and the steers average 750 lbs. each on the coverage end date.
- Total Insured Weight: 25 head x 750 lbs./head = 18,750 lbs.(187.5 cwt)
- Policy Duration: 26 weeks.
- Coverage Level: 86%.

Jane Doe purchases a policy with the following details:

<u>Metric</u>	Assumed <u>Value</u>	Calculation/Basis
Expected Ending Value (EEV)		The USDA's published price for the specific class of cattle and state.
Coverage Price \$1.72.lb. (\$172.00/cwt)		86% coverage x \$2.00 EEV
Policy Premium	\$.03/lb. (\$3.00/cwt)	Assumed value based on risk and duration; part is subsidized.
Total Premium Cost	\$562.50	\$3.00/cwt x 187.5 cwt

End of Coverage Period and Indemnity Payment

At the end of the 26-week coverage period, the actual ending market price (Actual Ending Value, or AEV) is determined by the USDA and has dropped significantly.

<u>Metric</u>	Assumed Value	<u>Basis</u>
Actual Ending Value (AEV)	\$1.65/lb. (\$165.00/cwt)	The USDA's published final price.
Coverage Price	\$1.72/lb. (\$172/00/cwt)	From initial policy

Calculating the Indemnity Payment

Since the Actual Ending Value of \$1.65/lb. is less than the Coverage Price of \$1.72/lb., the policy triggers an indemnity payment.

Loss per Pound: \$1.72/lb. (Coverage Price) - \$1.65/lb. = \$0.07 per lb.

Total Indemnity Payment: \$0.07/lb. x 18,750 total lbs.= \$1,312.50



To find Jane's net benefit from the LRP policy, subtract the premium she paid from the indemnity she received:

Net Benefit: \$1,312.50 (Indemnity) - \$562.50 (Premium Paid) = \$750.00

The LRP policy worked as intended. Jane received a payment that protected her from a significant portion of the decline in the market price. After accounting for the premium cost, she is better off than if she had not purchased the LRP insurance. If the market price had exceeded the insured price floor, Jane would have received downward price protection without limiting her ability to benefit from the higher market price, at a premium cost of \$562.50.

Livestock Gross Margin

The LGM, like the LRM, is also a federally subsidized insurance program from the RMA but it protects against different types of financial loss.

The following is a summary of the key differences between LRP and LGM for cattle producers:

Feature	Livestock Risk Protection (LRP)	Livestock Gross Margin (LGM)
What it Protects	Price Decline (Single Peril)	Gross Margin Loss (Two-Peril)
Indemnity Trigger	The Actual Ending Value (AEV) of the livestock falls below the producer's Coverage Price (a price floor).	The Actual Gross Margin falls below the guaranteed Expected Gross Margin (a margin floor).
Key Variables	Only Livestock Price is considered.	Livestock Price minus Feed Costs (corn and soybean meal) are considered.
Best For	llestablishing a price floor for their	Producers who are concerned with the combined risk of falling livestock prices AND rising feed costs squeezing their profit margin.
Flexibility	various insured periods (13 to 52	Available weekly (sold on the last business Friday of the month historically, now often weekly). Insures a longer, rolling 11-month insurance period for the entire marketing plan.

LRP is like a put option that ensures the producer receives at least a minimum price (the Coverage Price) for your cattle, regardless of how low the market goes. It is a straightforward price hedge with an indemnity being paid if the market price is less than the coverage price.

If a producer's cattle price falls, both LRP and LGM *may* pay an indemnity (LRP definitely will, LGM might, depending on the feed cost).

However, consider this scenario:

- The cattle selling price remains stable (no LRP payment).
- The cost of corn and soybean meal unexpectedly skyrockets.

In this case:

- LRP would pay nothing, as the cattle price didn't drop.
- LGM would likely pay an indemnity, because the rising feed costs would cause the Gross Margin to fall below the guarantee.

Conclusion

So which program is better? The choice depends on the producer's primary concern. If a producer raises most of his own feed and is primarily worried about the market price of cattle, LRP is often the cleaner, more direct solution. However, for those producers that buy a significant amount of feed and are worried about the volatility of *both* the cattle price and your feed cost, LGM provides more comprehensive protection for your expected profitability. In either event, tools exist to provide needed risk management to help manage price risk in the livestock business.

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