Price Risk Management for Cow-Calf Producers: Part 8

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Cow-calf producers use various strategies to manage price risk, including futures and options. Livestock Risk Protection (LRP) is a type of livestock price insurance that typically costs less than a put option. LRP may make payouts (indemnities) that would replace the income that is lost due to a price decline. For cow-calf producers interested in the price risk management and income benefits of LRP, some preparation is necessary before purchase. Before purchasing LRP, producers may want to consider their current market conditions, management priorities, and historic LRP performance. In this final article, we discuss LRP historic performance for producers with typical Kansas calving dates, which is available through a recently released decision aid.

For this analysis, we looked at LRP endorsements purchased in January, February, March, and April, to correspond with typical calving dates. We considered endorsement lengths of 26 and 34 weeks, to correspond with selling at wean and selling after approximately 2 months of backgrounding, respectively. Outcomes considered were gross (total) indemnities, premiums (LRP cost), and net indemnities (total indemnities less premiums). Producers and others interested in specific results can find the decision aid here; https://www.agmanager.info/crop-insurance/livestock-insurance-papers-and-information/historic-performance-livestock-risk In this article we summarize 3 key findings.

LRP payouts historically have been higher for endorsements ending in September to November, when more calves are coming to market and prices are more volatile. LRP net indemnities were observed at their highest level for the April to October endorsement, at the highest coverage level of 97.5-100%, averaging over \$5/cwt from 2007-2020. Net indemnities were also frequent and relatively high in September and November. The lowest net indemnities were for endorsements ending in August and December (all less than \$1.50/cwt). The supply of feeder cattle is most inelastic from September to November, or less responsive to price. In other words, many calves are being weaned during the fall and will be sold regardless of current market price. This makes declines in market price more likely when other shocks occur, such as severe drought. Likewise, the supply of feeder cattle is lower during the other periods considered, with more stable marketing arrangements, which makes price declines less likely.

LRP made payments in at least 2 out of 14 years in all scenarios considered, but payouts were not consistent across time. Indemnities were least frequent for low coverage levels selected for the March to November endorsement (2 payouts) and the April to December endorsement (3 payouts). Indemnities occurred in at least half of all years for many of the endorsements with high coverage levels, with the highest frequency for the February to October and April to October endorsements (8 payouts). However, high coverage policies could still experience several years without payouts. For example, no payouts were made on the high coverage April-October endorsements from 2009-2011. Likewise, the January to July endorsements with high coverage levels paid indemnities in 6 years, but had no payouts from 2017-2020.

LRP had positive net indemnities in most scenarios considered, but not all. Positive net indemnities means that gross indemnities were higher than premiums paid. This outcome is expected in the long run due to the premium subsidy. In the scenarios we considered, net indemnities were higher for the highest coverage policies, and occasionally negative for lower coverage policies. This outcome may reflect that the 14 years used for our analysis is not "the long run"; in other words, LRP premiums reflect catastrophic risk that may not have occurred within this relatively short period. These results do suggest that a producer that prioritizes the income benefits of LRP should select high coverage policies.

While there is no single "correct" way to manage price risk, aligning price risk management with management objectives is beneficial for any cow-calf operation. This series has introduced risk management concepts, explained key LRP characteristics, discussed LRP in the context of different management objectives, and analyzed historic LRP performance.

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