Agricultural Marketing Policy Center

BRIEFING

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Livestock Risk Protection for Lamb in Utah

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Objective Analysis For Informed Decision Making

RMA

Background

Federally-subsidized yield and/or revenue insurance products for crops are offered in many counties in Utah. Historically, federally-subsidized offerings of livestock-related risk management products have been limited to crops produced for livestock feed and, for a short time, a dairy options pilot program.

In September 2006 the Risk Management Agency (RMA) approved a price risk management product for lamb. This insurance product became available for purchase beginning September 17, 2007 in every Utah county. Several modifications were made to the LRP-Lamb program in 2009 subsequent to approval by the board of the Federal Crop Insurance Corporation. The product is also offered in Arizona, California, Colorado, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, New Mexico, Nevada, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Virginia, Washington, West Virginia, Wisconsin and Wyoming. The product for lamb is referred to as LRP-Lamb. Livestock Risk Protection (LRP) insurance is also available for feeder cattle, fed cattle, and swine.

Elements of LRP-Lamb

LRP-Lamb is designed to insure against declining market prices for slaughter lambs. Specifically, the producer is insured against a decline in national slaughter lamb prices below an established coverage price. LRP– Lamb *target* weights refer to the anticipated weights of lamb, on a hundredweight basis, at the end of an insurance period. *Target weight* refers to the average weight for the lambs covered. Lambs are expected to weigh between 50 and 150 pounds by the ending period.

LRP-Lamb insurance is offered for 13, 20, 26, and 39 week periods (*endorsement length*). Producers are expected to select an *endorsement length* closest to the time lambs are to be marketed.

Procedure for Obtaining LRP-Lamb Coverage

Producers must apply for LRP-Lamb insurance coverage through a crop insurance agent. Not all crop insurance agents are authorized to sell LRP. A *Substantial Beneficial Interest Reporting Form* must be submitted with the application. This form records pertinent information on any entity that has at least a 10 percent share in the lambs for which the application is submitted. This beneficial interest form facilitates the establishment of eligibility and tracks insurance limits.

Once an application for coverage is approved by a company and a policy number is assigned, a producer may activate coverage at any time by applying for a *Specific Coverage Endorsement.* This endorsement is used to initiate coverage for a specific group of lambs to be marketed at or near the end date of the endorsement.

Each *Specific Coverage Endorsement* is limited to 2,000 head of lambs. More than one *Specific Coverage Endorsement* may be purchased each crop year. *Endorsement lengths* and *coverage prices* may differ among endorsements. However, no more than 28,000 head of lambs per entity may be covered by LRP-Lamb in any crop year. The crop year for LRP-Lamb insurance is July 1 through June 30.

Coverage Prices and Levels

Coverage prices are the prices that can be insured by a producer. *Coverage prices* are calculated based on the *expected ending value* of the lambs to be insured. *Expected ending values* are posted weekly on each Friday that is a business day on a RMA Web site (www3.rma.usda.gov/ apps/ livestock_reports/). *Expected ending values* reflect prices for slaughter lambs that are expected to occur at the end of the coverage period.
Coverage levels range from 80 to 95 percent of expected ending values in 5 percent increments. Coverage prices are known to the producer at the time LRP-Lamb coverage is attached to a group of lambs.

Table 1 presents an example of what the RMA Web site might report on a particular day (readers should note that the data presented in Table 1 are taken from the RMA Web site). Table 1 presents *expected ending values* by *endorsement length* and *coverage levels* for lambs in Utah. Note that the *expected ending values* for Utah lambs with a 13-week endorsement were $126.300 per hundredweight for all coverage levels as forecast by lamb price forecasting model. For a contract with a 13-week endorsement period and a *coverage level* of 95 percent, the *coverage price* was $119.980 per hundredweight. LRP-Lamb may be purchased each week with sales beginning at approximately 10 a.m. (Central Time) on Monday morning when rates and coverage prices are released and ending on the same day at 7 p.m. (Central Time).

Insured Value and LRP-Lamb Premium Calculations

Insured value is calculated as:
Insured Value = Number of Lambs x Target Weight at End Date (in hundredweight per lamb) x Coverage Price x Insured Share

Total premiums are calculated as:
Total Premium = Insured Value x Rate

The total premium calculations are rounded to the nearest whole dollar and then referred to as *Rounded Total Premium*.

Producer premiums are subsidized by the Federal government. The *total subsidy* is calculated as:

Total Subsidy = 0.130 (13 percent subsidy for all premiums) x Rounded Total Premium

The *Total Subsidy* is rounded to the nearest whole dollar and referred to as the *Rounded Subsidy*

The net *Producer Premium* is calculated as:

Table 1: LRP-Lamb Coverage Prices, Expected and Actual Ending Values, and Rates for Utah Lambs, 06/21/2010.

* Expected ending values are forecasts of lamb cash prices of the policy ending dates based on a statistical model.

Producer Premium = Rounded Total Premium - Rounded Subsidy

An Example Premium

Consider a situation in which a producer had a 100 percent interest in 2,000 head of lambs. The producer plans to market the lambs on or near October 5, 2010. The lambs are expected to average 135 pounds per head at that time. The producer's LRP-Lamb *endorsement length* would be 13 weeks. On June 21, 2010, the *expected ending value* for contracts with a 13-week endorsement period was $126.300 per hundredweight (Table 1). If the producer had selected a *coverage level* of 95 percent, the producer's *coverage price* would have been $119.980 per hundredweight at a premium rate of 0.020580 (Table 1). The producer premium for this example is calculated as:

Insured Value = 2,000 head x 1.35 hundredweight/lamb x $119.980 per hundredweight x 1.0 = $323,946.

Rounded Total Premium = $323,946 x 0.020580 = $6,667.

Rounded Subsidy = $6,667 x 0.13 = $867.

Producer Premium = $6,667 - $867 = $5,800.

The premium must be paid on the day the insurance is purchased for coverage to be provided.

Indemnity Calculation:

An indemnity is due if the *actual ending value* is less than the *coverage price* selected by a producer. As noted above, the *coverage price* is selected on the day the insurance policy is attached.

Coverage prices range from 80 to 95 percent of expected *ending values*. The actual *ending value* for lambs at the end of the endorsement is the price of slaughter lambs as reported in the *National Weekly Sheep Review,* LM_LM352, issued by the Agricultural Marketing Service (AMS) of the United States Department of Agriculture. In this *Review*, published each Friday, the reference price will be labeled as *Formula Prices established for previously slaughtered lambs (live basis).* The AMS report is available at www.ams.usda.gov/mnreports/ lm_352.txt. This report is released once a week. The report used to calculate actual ending value will be the report from the week that contains the end date of the endorsement.

An indemnity payment will be made on those lambs specified in a *Specific Coverage Endorsement* based on the expected ending weight of the lambs that was selected when the insurance was attached. In the case of death loss, a producer is expected to notify the insurance company within 72 hours. If notice of death loss is not provided in a timely fashion, then coverage will be reduced by the number of dead lambs. A producer's **actual lamb sales weights** and **prices** at the end of the endorsement period **do not** enter into indemnity calculations. The *actual ending value* per hundredweight for lamb is available at the end of the insurance period. The indemnity is calculated as:

Indemnity = [*Number of Lambs Insured x Target Weight x (Coverage Price - Actual Ending Value)*] *x Insured Share*

An Indemnity Example:

Returning to the above example, the AMS reports *actual ending value* for lambs of $112.000 per hundredweight, as reported in Table 2. The producer would receive an indemnity because the *actual end value* on October 5, 2010 was less than the *coverage price* of $119.980.

The indemnity would be calculated as:

Indemnity = [2,000 head x 1.35 hundredweight/lamb x ($119.980 - 112.000)] x 1.0. = $21,546.

Note that the producer paid a premium of $5,800 for this insurance. Consequently, the net indemnity would be $15,746.

Evaluating the Use of LRP-Lamb by Utah Producers

To a large extent, the usefulness of LRP-Lamb to a lamb producer depends upon the relative tradeoff of price risk versus basis risk. Basis for slaughter lambs refers to the difference between local Utah cash slaughter lamb prices and values reported in the weekly AMS report. Producers are encouraged to use their sales records to evaluate their basis over time and seasonally within the year. Producers need to evaluate if historical relationships are good predictors of future relationships. Producers may want to consider LRP-Lamb insurance if their basis risk is less than their price risk.

LRP-Lamb may also be of interest to producers of feeder lambs. As this LRP-Lamb insurance product is based on expected and actual slaughter lamb prices, producers will need to determine the price differential between the cash prices they receive and the *Formula Prices established for previously slaughtered lambs (live basis).* In light of recent changes in price conditions in the feed grain markets, producers will need to evaluate if the lamb price differential will remain consistent and if these differentials will hold for future management/marketing decisions.

All producers are limited to 2,000 head of lamb per *Specific Coverage Endorsement* and 28,000 head of lambs per crop year per entity.

Some Utah feeder lamb producers may retain ownership of their feeder lambs and feed in a Utah feedlot. Such producers may avail themselves LRP-Lamb for price risk management. In addition some Utah feeder lamb producers may retain ownership and place their lambs in custom feedlots in another state.

They may also use LRP-Lamb to insure against downside price movements if their lambs are custom fed in a state where this insurance is available.

Table 2: Partial Replica LRP-Lamb Coverage Prices, Expected and Actual Ending Values, and Rates for Utah Lambs, 10/05/2010.