Livestock Gross Margin - Dairy:

Margin Insurance for California Dairy Farmers
Protecting Against Falling Milk Prices & Rising Feed Costs

By John P. Hewlett– University of Wyoming and Dr. Jay Parsons– Colorado State University

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How Much Risk Is Right For You?

Livestock Gross Margin - Dairy (LGM-Dairy) is a form of insurance designed to provide protection to dairy farmers against rising feed costs and falling milk prices. Gross margin in this sense refers to the difference between the market value of milk and the cost of feed. LGM-Dairy uses futures markets to establish both milk and feed prices. Currently, LGM-Dairy is available to dairy producers in any county in California.

How Does It Work?

LGM-Dairy provides protection from the risk of falling milk prices, rising feed costs, or both. Milk produced for human consumption by dairy cattle in California and the other 47 contiguous states is eligible for coverage. LGM -Dairy insurance covers losses in gross margin from milk production. Futures markets for corn and soybean meal are used to establish feed costs. Futures prices for milk are used to estimate the market value of milk produced. Gross margin is calculated as the difference between the expected market value of milk and the associated feed costs. Local prices are not used in gross margin calculations. In this way, LGM-Diary may be used as a risk management tool to provide protection against declining margins from milk production.

LGM-Dairy insurance coverage is based upon target marketings of milk production (hundredweight of production per month) and estimated feed use (tons of soybean meal and corn). Estimates of feed use are normally established from prior farm production records (default values are also possible). In addition, the portion of target marketings (expected milk production) insured under LGM-Dairy is flexible, allowing a farm to purchase only the level of coverage desired.

LGM-Dairy does not provide protection against death loss of dairy cattle, unexpected declines in milk production or unanticipated increases in feed use.

LGM-Dairy insurance may be available for purchase the last business Friday of every month. The insurance period is limited to 11 months; coverage beginning the second month of the insured period. As a result, LGM-Dairy insurance is available only 12 times each calendar year.

Subsidies for LGM-Dairy coverage are available, covering a portion of the cost of an LGM-Dairy policy. These subsidies range from 18 to 50 percent of the total premium, depending on the level of deductible selected (subsidy levels increase with higher deductibles). Deductible levels are also adjustable, ranging from $0 to $2 per hundredweight of milk in $0.10 increments. Premiums are due at the end of the coverage period and are estimated based on the level of LGM-Dairy insurance purchased.

Indemnity payments are made at the end of the 11-month insurance period when the actual gross margin falls below the gross margin guarantee. The level of indemnity payment is based on the level of insurance deductible selected.

Example Farm

Table 1. California Farm Example

Item	Calculation	Amount
Expected Target Marketings	Total of: (1,500 hundredweight/month X monthly milk futures price) for each month of the 11-month insurance period	$219,780
Expected Feed Costs	Total of: (21 corn equivalents*/month X monthly corn futures price + 3 soybean meal equivalents*/month X monthly soybean futures price) for each month of the 11-month insurance period	$38,829
Expected Total Gross Margin	*Expected Target Marketings – Expected Feed Costs*	$180,951
Deductible Level		$0.00
Gross Margin Guarantee	*Expected Total Gross Margin – (Total Target Marketings X Deductible)*	$180,951
Producer Premium	$11,652 - $2,117	$9,535
Actual Gross Margin		$150,000
Estimated Indemnity Payment	$180,951 – $150,000	$30,951

* The producer has the option of estimating their own values for these feed equivalents.

Assume a California farm purchases LGM-Dairy insurance for a dairy located in San Bernardino County with milk production of 1,500 hundredweight per month. Using the default feed equivalents (21.0 corn equivalents and 3.0 soybean equivalents per hundred-weight of milk) and the quoted prices for milk and feed for each of the 11 months of coverage, gives an expected gross margin of $180,951. The farm elects to purchase LGM-Dairy with the $0 deductible option with an associated subsidy of 18 percent, making the producer premium $9,535 including all subsidies and administrative fees over the 11 months. The corresponding gross margin guarantee amounts to $180,951 after factoring in the deductible level.

Now assume that the dairy generated an actual gross margin of $150,000 over the insured period (due to declining milk price, increasing feed prices, or both). An indemnity payment would be due because the actual gross margin fell below the gross margin guarantee. The indemnity payment would be calculated as the difference of the gross margin guarantee and the actual gross margin or $30,951 in this case ($180,951 – $150,000). Note that where a positive deductible is selected, this will correspondingly reduce any indemnity payments as less than 100 percent of the gross margin is covered by LGM-Dairy insurance.

Deductible

Let's examine further the influence of the deductible decision for our example farm. Keep in mind that the expected total gross margin is estimated at $180,951. However, now let's assume that the farm purchased LGM-Dairy insurance at the $1.50 deductible level (values of $0 to $2 per hundredweight are permitted). This makes the gross margin guarantee $158,451 ($180,951-$22,500) and the associated producer premium $1,825, after including all subsidies and administrative fees over the 11 months.

Remember that the dairy generated an actual gross margin of $150,000 over the insured period (due to declining milk price, increasing feed prices, or both). An indemnity payment would be due because the actual gross margin fell below the gross margin guarantee. The indemnity payment would be calculated as the difference of the gross margin guarantee and the actual gross margin or $8,451 in this case ($158,451 – $150,000).

Clearly the level of deductible selected when purchasing LGM-Dairy makes a difference in the indemnity payments the farm could expect in a loss situation. Given the same level of actual gross margin, indemnity payments varied from $30,951 to $8,451 with deductibles set at $0 and $1.50, respectively. As with any form of insurance, the higher the level of protection purchased, the higher the cost. Premiums paid varied in this case from $9,535 to $1,825. These two examples demonstrate that the choice of deductible should be made with careful consideration of the expectations for the future.

Table 2. California Farm Example continued

Item	Calculation	Amount
Expected Total Gross Margin	*Expected Target Marketings – Expected Feed Costs*	$180,951
Deductible Level		$1.50
Gross Margin Guarantee	*$180,951 – (15,000 * $1.50)*	$158,451
Producer Premium	$2,230 – $405	$1,825
Actual Gross Margin		$150,000
Estimated Indemnity Payment	$158,451 – $150,000	$8,451

* The producer has the option of estimating their own values for these feed equivalents.

For more information

More information on the Livestock Gross Margin - Dairy plans of insurance may be found at the USDA Risk Management Agency website www.rma.usda.gov.

This web site also includes a Cost Estimator tool that allows the user to evaluate premium costs for various levels of LGM-Dairy protection. Click on the Information Browser link in the left side bar and choose the Cost Estimator link on the following page. From the next list select either Quick Estimate or Detailed Estimate to begin estimating premium costs. This tool will also provide premium estimates for other federally-subsidized insurance products.

There are several web sites that provide additional information on LGM-Dairy. One website maintained by the University of Wisconsin contains software tools for evaluating the program, fact sheets and bulletins explaining how the program works, and links to other information on the U.S. dairy industry, including historic price data. The website is located at: future.aae.wisc.edu.

How do I get it?

Federally-subsidized crop insurance products managed by RMA are sold by private crop insurance agents. The RMA website lists an Agent/company Locator link in the right side bar of their home page. This link provides a list of all agents approved to provide these products in California.

For more information on LGM-Dairy, how it may fit your operation, and other crop insurance products, consult a local crop insurance agent. For more interactive products and information on risk management, consult eRightRisk.com.