

LGM-Dairy: What producer needs to decide?

Main things to consider:

- Percentage of target milk marketings to insure (0% to 100%)
- Determine amount of feed used to produce the amount of insured milk
- Level of Gross Margin Deductible or risk to assume (\$0 to \$1.50/cwt in \$0.10 increments)
- Months to insure

Approved Target Marketings



- A producer's Approved Target Marketings is the maximum milk production that can be stated as Target Marketings on the application
- Approved Target Marketings are certified by the producer and are subject to inspection by the insurance company
- Maximum marketings of 240,000 cwt per crop year or insurance period

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What if milk production varies?

- Cannot claim indemnity on more than 100% of your target marketings
- If actual marketings are less than 75% of the target marketings - coverage will adjust proportionately
- Anything between 75% - 100% will be 100% covered

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Expected Feed Used



- LGM-Dairy can be used to reflect the amount and type of feed *expected* to be used
 - Feed must be converted to corn and soybean meal (SBM) equivalents
 - Program rules specify feed equivalents need to be in very broad ranges:
 - ✓ Corn: 0.00364–0.02912 tons/cwt (0.13 – 1.04 bu/cwt)
 - ✓ SBM: 0.000805–0.006425 ton/cwt (1.61 – 12.85 lb/cwt)
 - Producer supplies expected feed use at sign-up
 - Each month's feeding rates must be between limits

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LGM-Dairy: Insurance Deductible



- Producer chooses the amount of gross margin (Milk Value – Feed Costs) per cwt not covered by the contract
 - Referred to as insurance deductible
 - Allowed to exclude from \$0.00 - \$1.50/cwt gross margin from insurance coverage (\$0.10 increment)
 - The greater the deductible:
 - ✓ The lower the premium
 - ✓ You are assuming more risk as deductible portion of your gross margin is not guaranteed

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LGM-Dairy: When purchased?

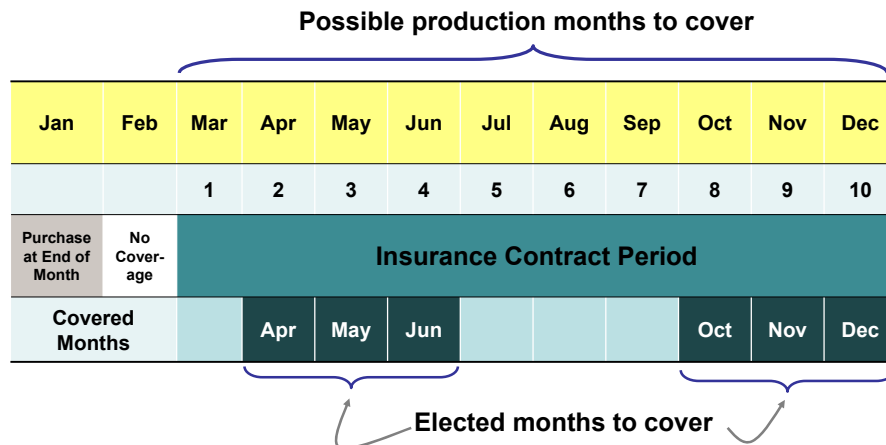


- LGM-Dairy can only be purchased within a limited time period at the end of each month
 - Purchase starts at the close of business on the *3rd to last business day* of the month
 - Sales period ends on 9:00 AM CDT the following business day
 - ✓ Need to develop a system with your insurance agent on how to sign up
 - If expected milk and feed prices are not available on RMA website, LGM will not be offered for sale for that insurance period

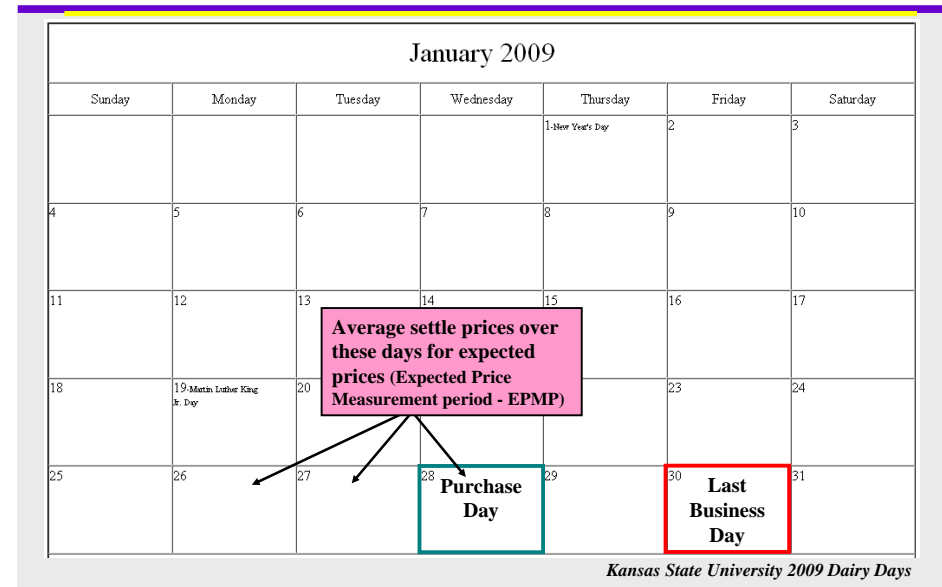
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LGM-Dairy: An overview of the insurance period

- Example of one possible insurance strategy where insurance is purchased in January



LGM-Dairy: Expected Price Calculation



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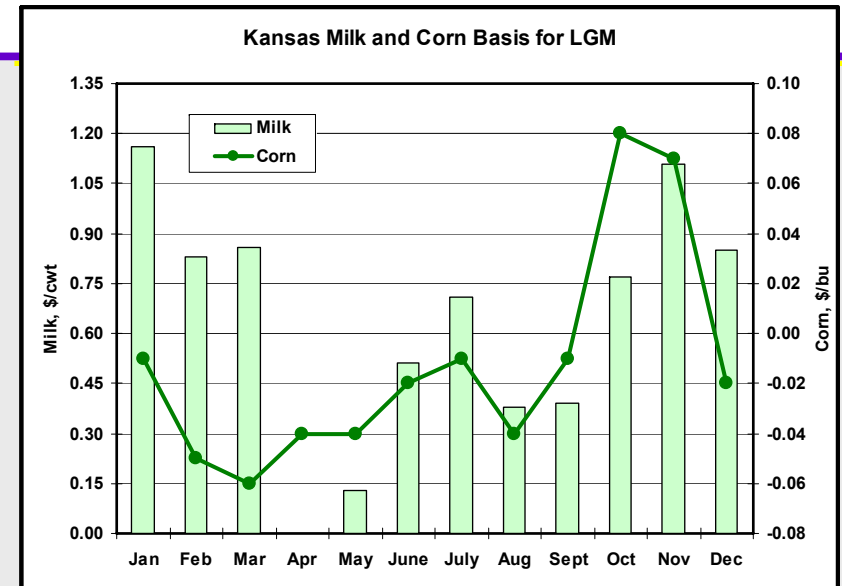
LGM-Dairy: What are expected prices?

Average of future prices over 3-day price discovery period (three trading days prior to the last two trading days in the month)

- Class III milk (CME)
- Corn (CBOT)
- Soybean meal (CBOT)

Milk and corn prices are adjusted by state- and month-specific basis

- Predetermined for crop year
- Not tied to your actual basis



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LGM-Dairy: Expected Gross Margin

- **Expected Gross Margin for entire contract period determined at sign-up**
 - **Expected Gross Margin**
 - ✓ Sum over all contract months of *Expected Value of Milk* – *Expected Feed Costs*
 - **Expected Value of Milk in a particular month**
 - ✓ That month's *Expected Milk Price* (less deductible) x *Expected Monthly Production*
 - **Expected Feed Costs in a particular month**
 - ✓ That month's *Expected Feed Price* x *Expected Amount of Feed Used*

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Example...



Example calculations of LGM quantities

Number of cows being milked		80
Average milk production, lbs/day		75
Days in month		30
Total milk production, cwt		1,800
Corn equivalents, tons/cwt	(bu)	tons
Min	0.00364 (234)	6.552
Avg	0.01638 (1053)	29.484
Max	0.02912 (1872)	52.416
SBM equivalents		tons
Min	0.000805	1.449
Avg	0.003615	6.507
Max	0.006425	11.565

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Example...



Example calculations of LGM quantities -- Jan 09

July 2009 milk price, \$/cwt	\$13.24
July 2009 corn price, \$/bu	\$4.03
July 2009 SBM price, \$/ton	\$312.30
Deductible	\$0.00
Expected gross income	\$23,832

Expected gross margin guarantee

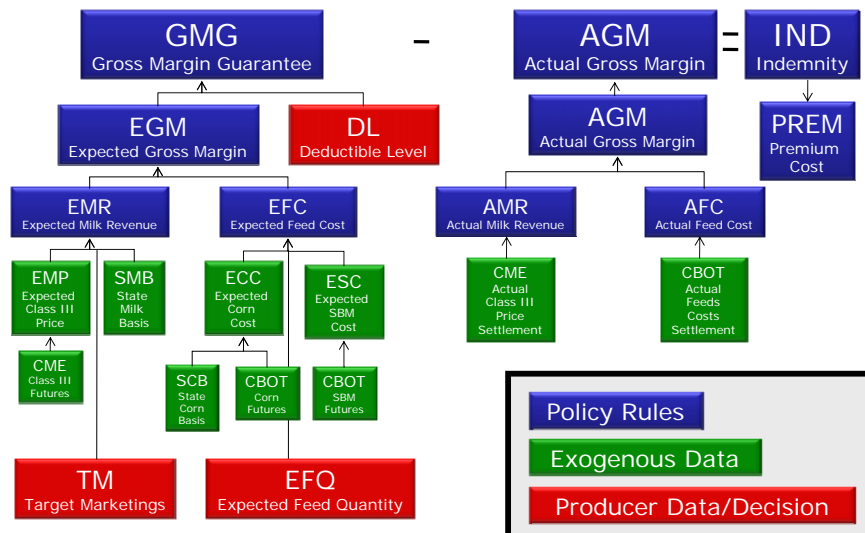
SBM equivalents	Corn equivalents		
	6.552	29.484	52.416
1.449	\$22,436	\$19,136	\$15,835
6.507	\$20,857	\$17,556	\$14,256
11.565	\$19,277	\$15,977	\$12,676

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How much does LGM-Dairy cost?

- Premiums are equal to the average of expected indemnities in the long-run
- Proportional to the milk and feed insured
- Increases with price volatility
- Decreases as elected deductible increases
- Decreases when months are insured together
- Estimates available on RMA website

LGM-Dairy: An overview of how it works



Premium Quotes



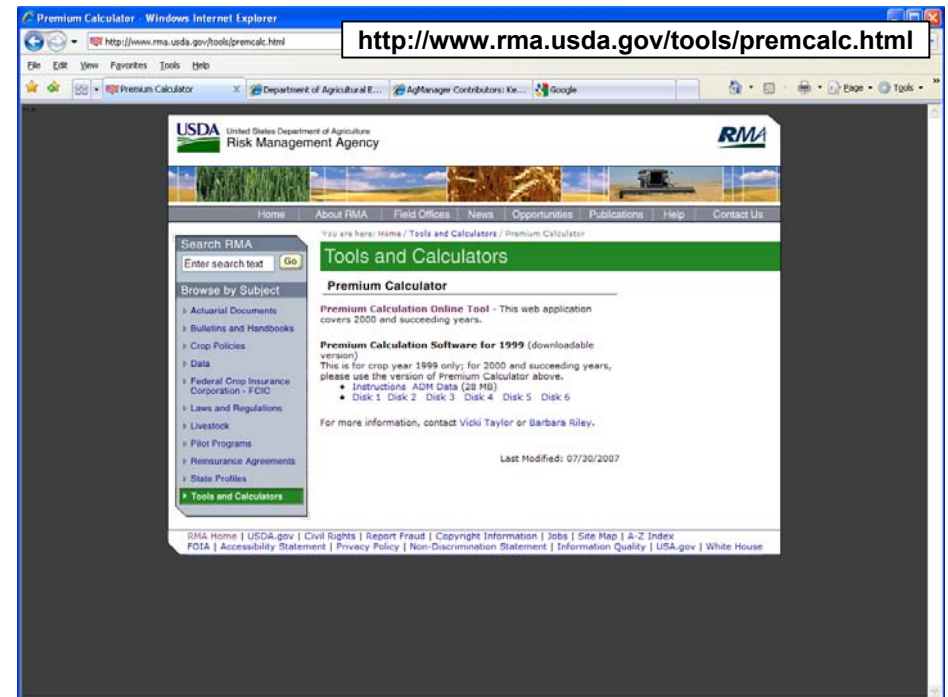
- Obtaining a quote
 - Prior to the sales day (3rd to last business day of the month), quotes run off of the previous month's prices
 - Actual quotes can only be given on the actual sales day

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Premium Quotes

- Premium calculations done automatically when accessing RMA Premium Calculator website: www.rma.usda.gov/tools/premcalc.html
 - Purchase data only available at the end of EPMP
 - Stays there until next month
- University of Wisconsin LGM-Dairy Premium Calculator updated the day after purchase date
 - More flexible than RMA site to undertake “what-if” type of analyses
 - Historical database of simulated prices

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Scenario	Production insured, cwt	Total premium	\$/cwt	Total premium*	\$/cwt
Insure all production in July (1)	22,000	\$20,404	(\$0.93)	\$10,602	(\$0.48)
Insure production every other month (5)	22,000	\$16,275	(\$0.74)	\$7,082	(\$0.32)
Insure (Apr-Jun and Oct-Dec) (6)	22,000	\$17,919	(\$0.81)	\$8,448	(\$0.38)
Insure production every month (10)	22,000	\$17,128	(\$0.78)	\$7,815	(\$0.36)

* Based on a \$1.00/cwt deductible

LGM-Dairy: What are “actual” prices?

Average of settle prices over last three days prior to contract expiration

- Class III milk (CME)
- Corn (CBOT)
- Soybean meal (CBOT)

Actual futures prices are adjusted by the same basis that was used for determining expected prices

LGM-Dairy: Indemnity Determination

- LGM-Dairy defines indemnity as:
 - Indemnity = $\text{Max}[0, \text{Total GMG} - \text{Total AGM}]$
 - ✓ *Total* refers to sum over all contract months
 - If *Total GMG* > *Total AGM* → An indemnity is paid
 - Evaluate indemnity after last covered month's actual prices are available

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LGM-Dairy: Overview

Advantages:

- Unique bundled insurance protects the margin (milk price less feed cost)
- Very flexible and customizable (variable size, feed terms, deductible)
- Offered every month of the year

Drawbacks:

- Very short enrollment period
- Total premium due at sign-up
- Not specific to your operation
- Limited capacity

The screenshot shows the USDA Risk Management Agency website. The address bar displays <http://www.rma.usda.gov/livestock/>. The page features a navigation menu with options like Home, About RMA, Field Offices, News, Opportunities, Publications, Help, and Contact Us. A search bar is present on the left. The main content area is titled "Livestock" and includes a sub-section for "2009 Livestock Gross Margin (LGM), PDF files." which provides protection against loss of gross margin. Below this, there are links for "LGM Cattle" and "LGM Dairy", each with a list of resources such as Policy, Underwriting Rules, Handbook, Premium Calculation Instructions, and Commodity Exchange Endorsement. A "2009 Livestock Risk Protection (LRP), PDF files." section is also visible at the bottom.

The screenshot shows the University of Wisconsin website. The address bar displays http://future.aae.wisc.edu/lgm_dairy.html#3. The page is titled "Understanding Dairy Markets" and is described as "Your Source for Market Information and Price Risk Management Principles". It features a section titled "Valuable LGM Dairy resources" with links for Sponsors and Contact Us. Below this, there is a link to "LGM-Dairy" which is circled in red. The main content area is titled "Livestock Gross Margin Insurance for Dairy Cattle" and provides information about the LGM-Dairy program, including a description of the insurance and a list of resources such as "Sign-up for the LGM-Dairy Mailing List", "Background Material Made Available by the RMA", "Supporting Software", "Underlying Data", and "Additional Material Explaining LGM-Dairy".

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Kevin Dhuyvetter / Slide presentations...

Questions?

CRMIL Cattle Risk Management Library

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Providing Information and Tools For The Competitive Business

Recent Updates

Seasonal Grain and Cattle Price Spreadsheets (Excel)
January 7, 2009 by Kevin Dhuyvetter

Future-Based Price Forecasts for Diesel Fuel
January 5, 2009 by Kevin Dhuyvetter

Livestock Outlook Radio Program
January 5, 2009 by Jim Mintert,LMC

Kansas Grain Price Spread-Transportation Returns
January 5, 2009 by Daniel O'Brien

Updated Crop Basis Tool
January 5, 2009 by Kevin Dhuyvetter

Crop Basis Maps
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In The Cattle Markets
December 22, 2008 by Jim Mintert,LMC

Livestock and Hay Charts
December 21, 2008 by Jim Mintert

Grain Outlook Radio Program
December 18, 2008 by Mike Woolvorton

KFMA Monthly Newsletter
December 18, 2008 by Michael Langemeier and Mark Dikeman

Biofuels: The Environment and the Economy
December 15, 2008 by Denise O'Brien and Mike Woolvorton

World Grain Supply and Demand Estimates (WASDE)
December 15, 2008 by Jim Mintert and Mike Woolvorton

Current Grain Outlook Newsletter
December 12, 2008 by Mike Woolvorton

Grain Market Outlook Presentation
December 9, 2008 by Daniel O'Brien

2002 & 2006 Fence Construction Cost Survey in Kansas
December 5, 2008 by Jan Schlage

US Ethanol Production, Imports and Exports
December 5, 2008 by Daniel O'Brien

Future Leasing Arrangements
December 5, 2008 by Jim Schlage

The Making of An Economist
December 3, 2008 by Vincent Amadio

KSI-GPSguidance.xls - Economics for maximum grain yields and reduced