



Agriculture and Natural Resources
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NOTE to editor: This is one in a series of articles produced by University of Wisconsin-Extension agents and specialists to address farming through difficult times. More articles can be found on the Extension Responds website at:
www.uwex.edu/ces/ag/farmingindifficulttimes.html

Additionally, the attached table provides an example of the performance of the use of LGM-Dairy by a typical Wisconsin Dairy Farm.

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Managing through Difficult Times: Program insures target levels of dairy gross margins

Madison, Wis. – University of Wisconsin-Madison/Extension researchers have been evaluating the use of a new insurance program that can be used to guarantee a minimum level of milk revenue net of feed costs.

The Livestock Gross Margin Insurance for Dairy (LGM-Dairy) - available to Wisconsin dairy farm operators since August 2008 - is administered by the Risk Management Agency of the USDA. This program can be considered analogous to the use of bundled Class III put and feed call options to establish a floor on net revenues. The guaranteed net revenues can be applied to cover other variable and fixed production costs.

Key features of this insurance program are:

- Dairy net returns are calculated as the value of milk production net of imputed purchased feed costs;
- There is no minimum farm size requirement;
- Insured milk production can range from 0 percent – 100 percent of each month's production during the 10 month insurance contract;
- Similar to other insurance programs, the producer can choose deductible levels of guaranteed net return per cwt that is not insured;
- This program is purchased at the end of each month;
- A maximum number of 10 months of production can be covered under one contract;
- Multiple insurance contracts can be purchased so long as monthly covered production does not exceed production history;

- There are no producer premium subsidies as in the case of federal crop insurance; and
- Premiums reflect the specific production and feeding use by each operation.

According to Brian Gould, UW-Madison/Extension agricultural economist and Victor Cabrera, UW-Madison/Extension dairy systems management specialist depending on market conditions, herd productivity and feeding regime, using LGM-Dairy to guarantee a minimum net revenue has the potential to be much less expensive than using combined Class III put and feed-based call options to establish a similar level of revenue protection. This cost advantage, combined with LGM-Dairy's flexibility to match a dairy farm's production and feed use, points to the program's usefulness.

A website has been developed that provides, in a single location, background information on the LGM-Dairy program as well as software systems that can be used to estimate insurance premiums using historical data under alternative market conditions. In addition, software has been developed that allows for an estimate of potential insurance premiums as the monthly purchase day approaches. This website is part of the UW-Madison's *Understanding Dairy Markets* (<http://future.aae.wisc.edu>) website. The specific address for the LGM-Dairy related material is: http://future.aae.wisc.edu/lgm_dairy.html .

The attached table provides an example analysis of the use of LGM-Dairy for a 250 head Wisconsin dairy farm, with an average annual per cow productivity of 19,800 lbs feeding 966 tons of corn and 213 tons of soybean meal equivalents over an assumed 10-month coverage period. This analysis is based on actual February 2009 data, the most recent data available, and assuming 100 percent of expected production over April 2009 – January 2010 is insured. For this table, the Gross Margin Guarantee (GMG) is defined as the total value of milk production minus the imputed feed costs and the assumed gross margin deductible (\$/cwt) times the amount of milk covered.

To access more information and/or tools to help analyze your situation, link to the Extension Responds web page at: www.uwex.edu/ces/ag/farmingindifficulttimes.html

For assistance in making these tough decisions, contact your UW-Extension county agent, your Farm Business and Production Management Instructor in the Technical College or the DATCP Farm Center at 1-800-942-2474.

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File: risk management, farming in difficult times

Example of the Use of LGM-Dairy Based on February 2009 Market Conditions for an Average 250 Head Wisconsin Dairy Farm

Deductible Rate (\$ GMG /cwt)	Gross Margin Guarantee (GMG)			Premium		
	Total (\$)	\$/cwt	% ↓	\$/cwt	% ↓	% of GMG
0	412,694	9.96	-----	0.81	-----	8.2
0.10	408,552	9.86	-1.0	0.76	-6.3	7.7
0.30	400,269	9.66	-3.0	0.67	-18.1	6.9
0.50	391,986	9.46	-5.0	0.58	-28.8	6.1
0.70	383,702	9.26	-7.0	0.50	-38.5	5.4
0.90	375,419	9.06	-9.0	0.43	-47.2	4.7
1.10	367,135	8.86	-11.0	0.37	-55.0	4.1
1.30	358,852	8.66	-13.1	0.31	-62.0	3.6
1.50	350,569	8.46	-15.1	0.26	-68.2	3.1

The above table provides a sensitivity analysis of program performance under alternative deductible levels shown in the 1st column. The range of gross margin guarantees over the entire 10 month insurance period are from \$9.96 – \$8.46/cwt of covered milk. As with other insurance policies, insurance premiums decrease with higher deductibles. With no gross margin deductible, the LGM premium was estimated to be \$0.81/cwt. In contrast with the maximum deductible of \$1.50 of gross margin/cwt the premium decreases to \$0.26/cwt, a 68.2% decrease in premium from the no deductible option. In contrast the guaranteed gross margin decreases by approximately 15.1% under the \$1.50 deductible versus the no deductible option. The relative value of premiums, measured as a percent of GMG, decreases from 8.2% when no deductibles are chosen to 3.1% under the maximum \$1.50 deductible scenario.