



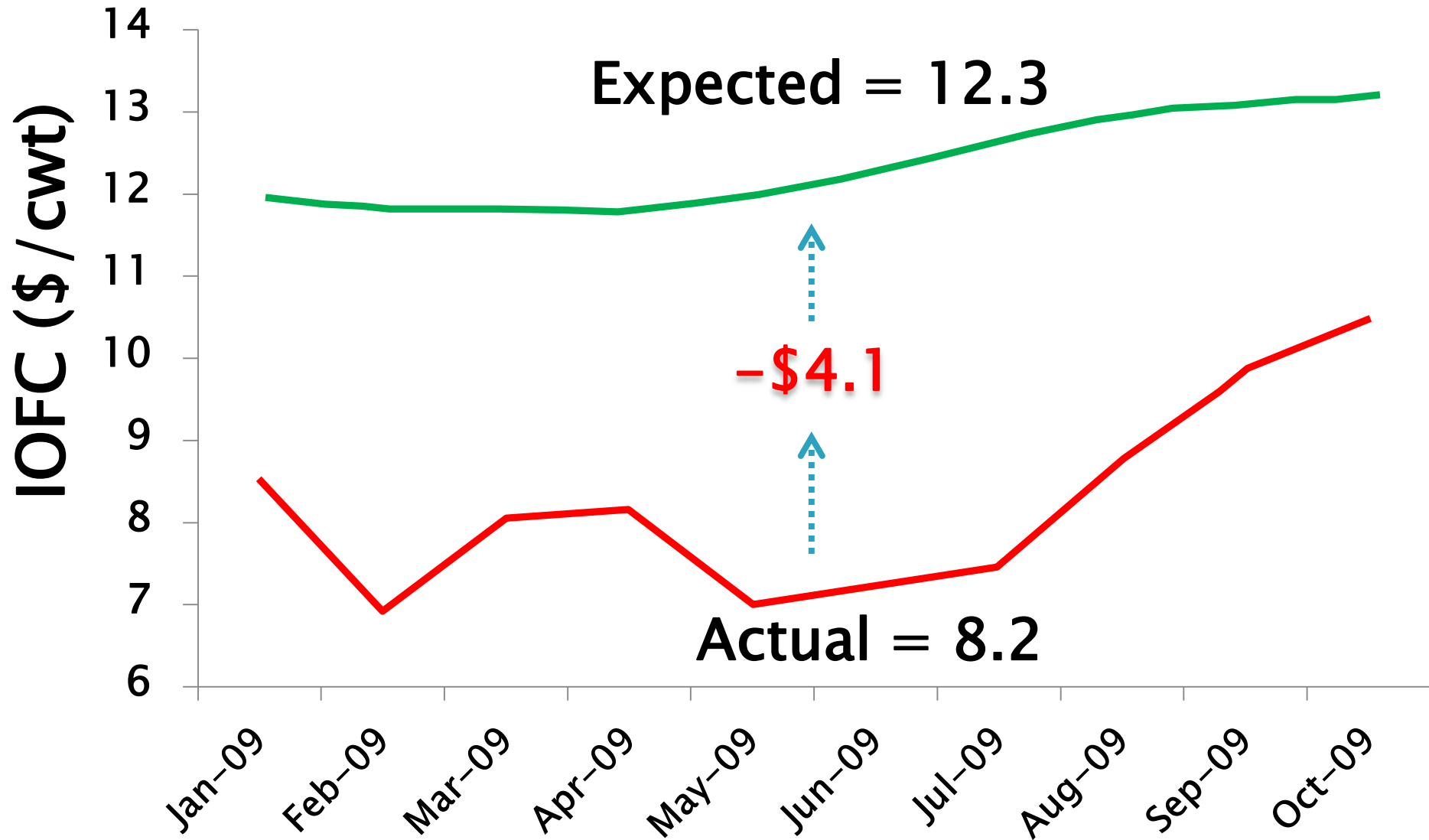
Livestock Gross Margin for Dairy Insurance

Prairie States Executive Committee Meeting, 8 March 2011

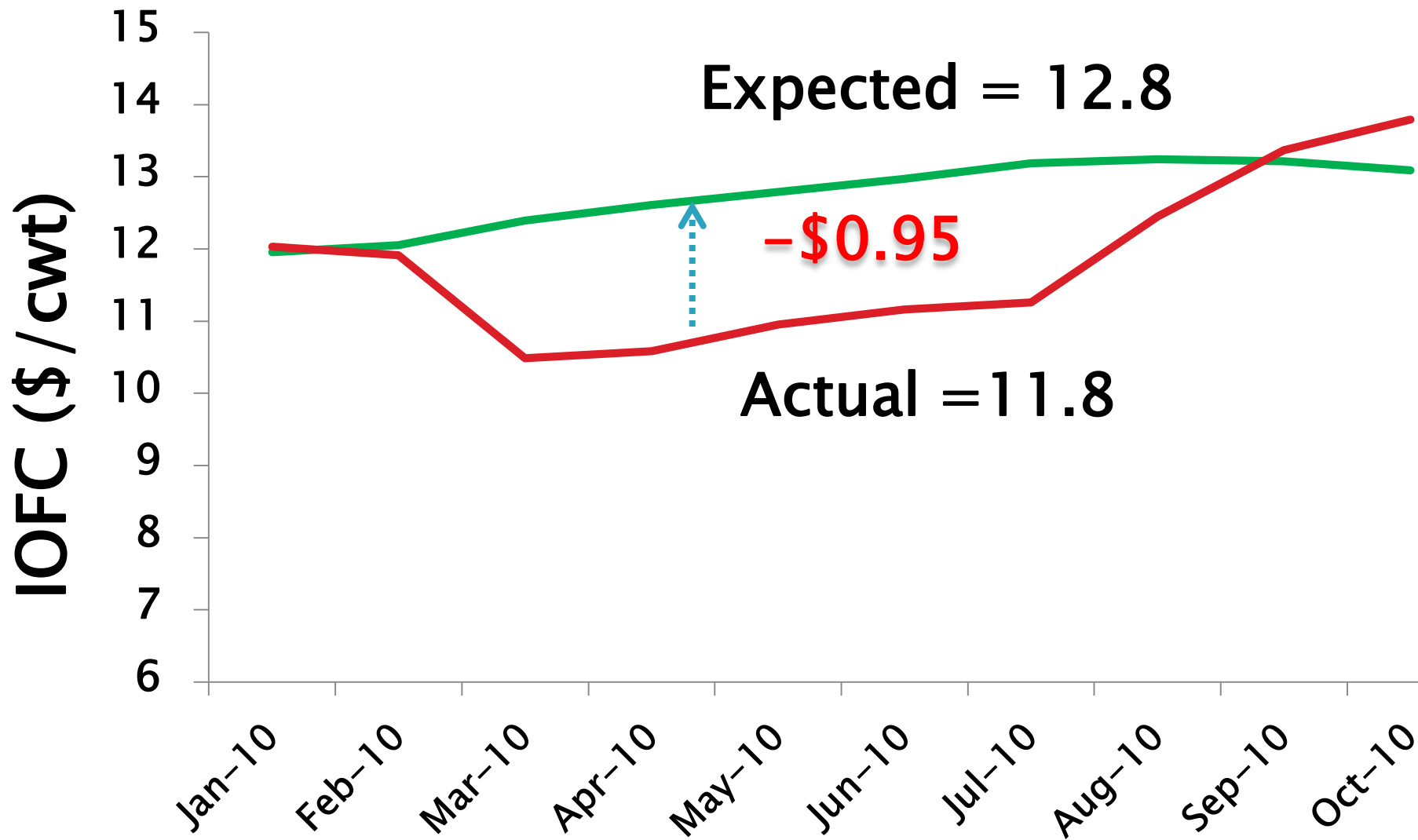
Victor E. Cabrera , Brian W. Gould, & Paul Dyk

Nov-08

Did you know...?



Nov-09



Mar-11

Expected = 12.7

IOFC (\$ / cwt)

14
13
12
11
10
9
8
7
6

May-11

Jun-11

Jul-11

Aug-11

Sep-11

Oct-11

Nov-11

Dec-11

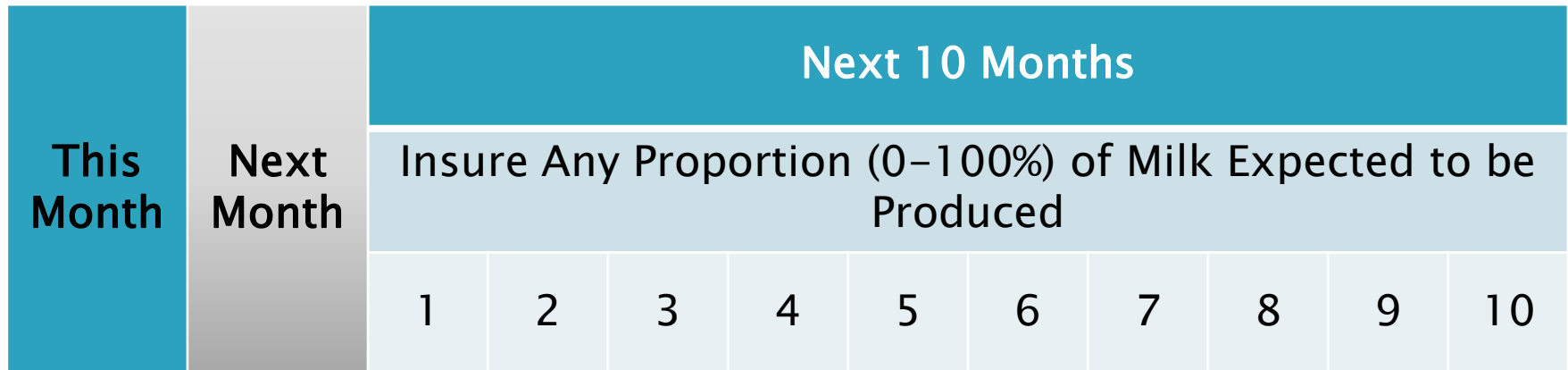
Jan-12

Feb-12

	Class III	Corn	SBM
May-11	17.48	7.29	368.87
Jun-11	16.98	7.31	370.43
Jul-11	17.04	7.33	371.99
Aug-11	17.05	6.96	368.98
Sep-11	17.09	6.59	362.28
Oct-11	16.94	6.43	351.68
Nov-11	16.74	6.26	351.44
Dec-11	16.60	6.10	351.20
Jan-12	16.15	6.13	351.20
Feb-12	15.90	6.16	350.58

Timeline for LGM-Dairy

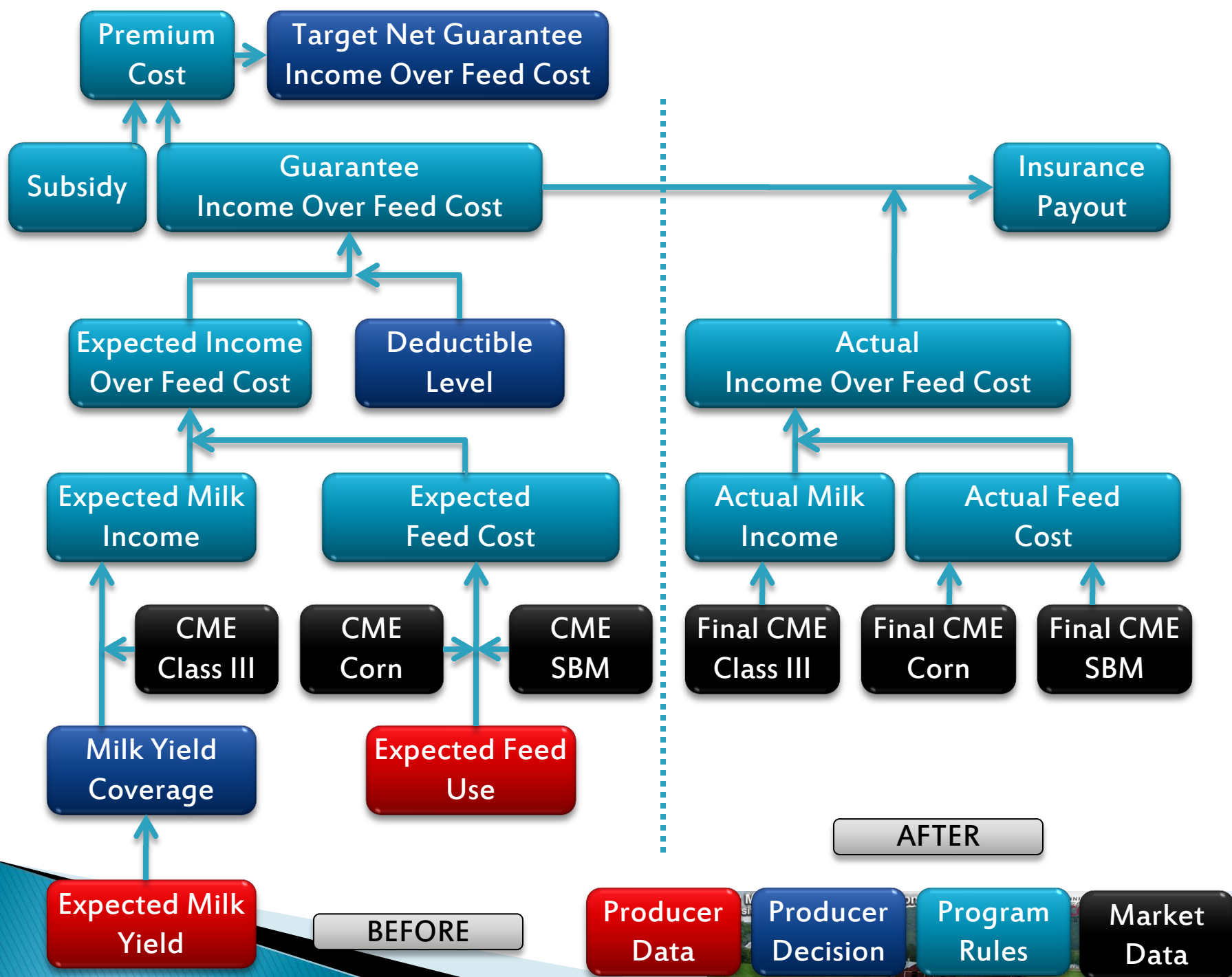
Purchase Contract



Collect Indemnity, If Any



LGM-Dairy Overview



Incentives

Since Dec 2010

Premium
Cost

Up to 50% SUBSIDY !

Premium
Payment

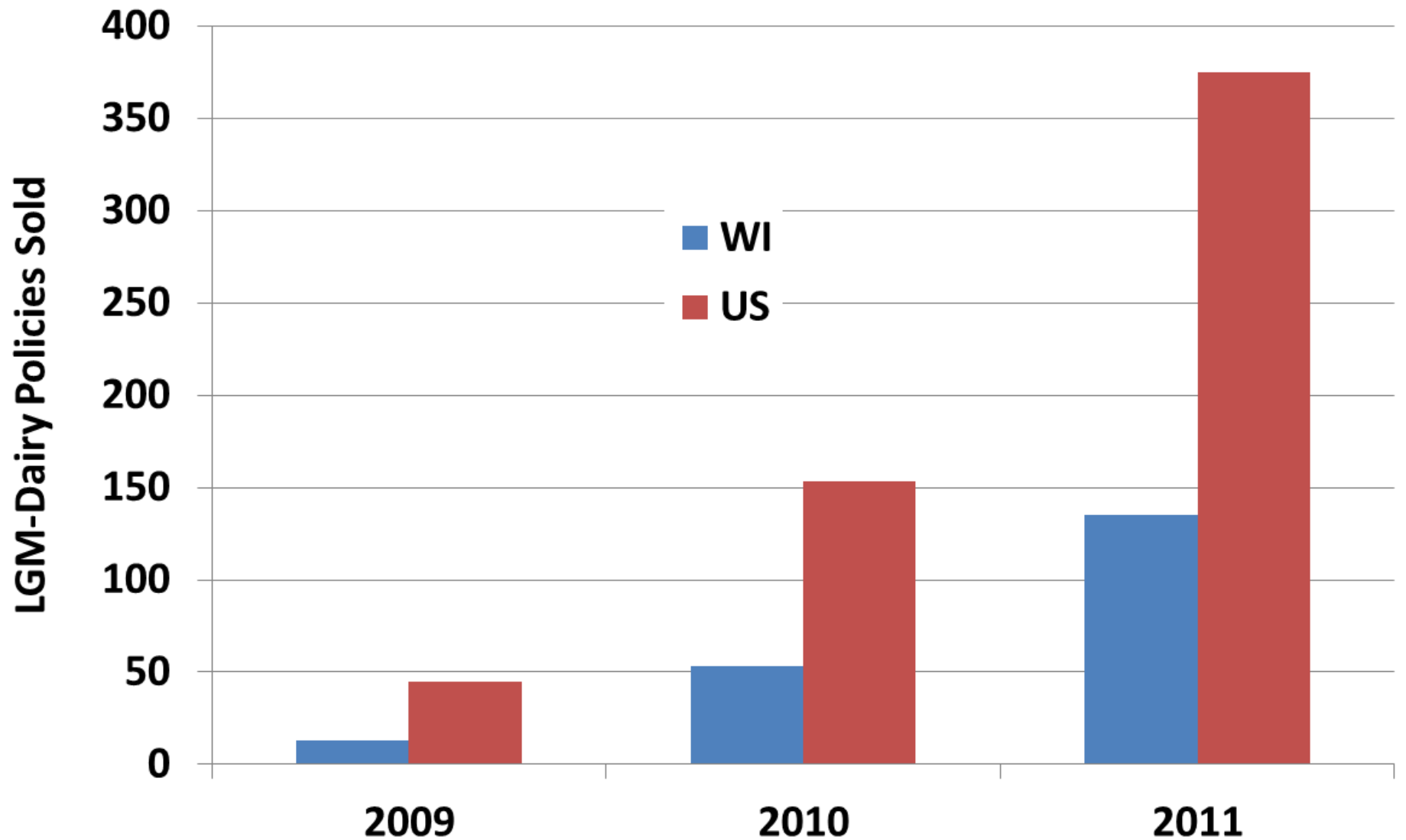
Due at the END of Contract !

Deductible
Level

Up to \$2/cwt milk !



LGM-Dairy Policies Sold in Wisconsin and the US at the end January 2011



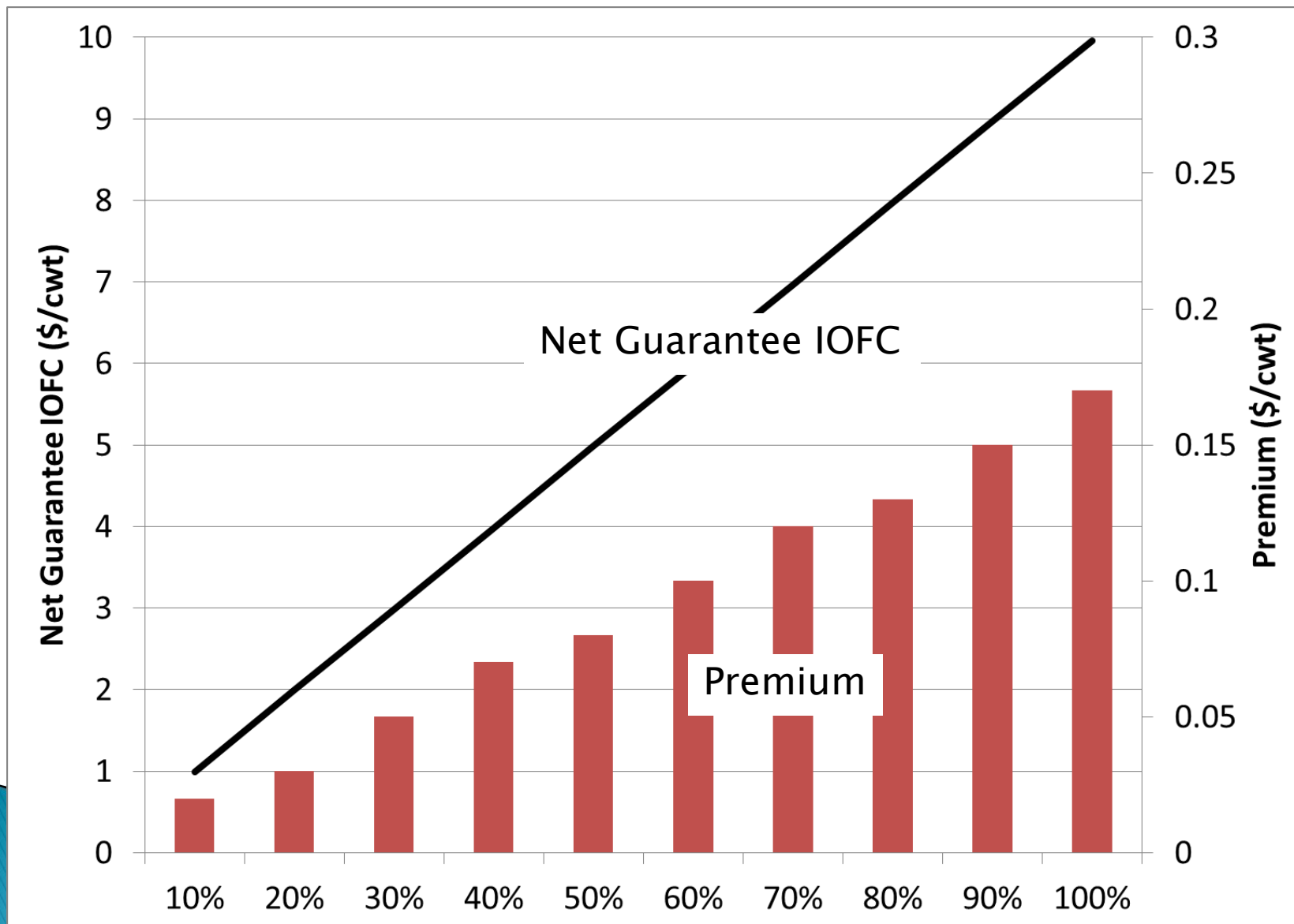
LGM-Dairy: Measures of Activity, 2011 RY

State	Policies Sold		CWT Insured		Liabilities		Premiums		Subsidies		Subsidy %
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
CA	2	2.0	2	2.0	2	2.0	2	2.0	2	2.0	45.0
ID	2	2.0	2	2.0	2	2.0	2	2.0	2	2.0	33.6
IA	3	3.0	3	3.0	3	3.0	3	3.0	3	3.0	47.3
MI	9	9.0	9	9.0	9	9.0	9	9.0	9	9.0	36.6
MN	12	12.0	12	12.0	12	12.0	12	12.0	12	12.0	39.7
NY	6	6.0	6	6.0	6	6.0	6	6.0	6	6.0	36.5
PA	108	9.9	1,625	4.7	26,795	4.7	983	5.4	369	4.9	37.5
VT	83	7.6	4,416	12.8	71,450	12.4	969	10.8	969	12.8	49.1
WA	39	3.6	2,424	7.0	39,363	6.8	559	6.7	559	7.4	46.0
WI	336	30.8	6,832	19.8	113,899	19.8	3,646	20.0	1,467	19.4	40.2
Other	157	14.4	6,330	18.3	106,699	18.5	3,475	19.1	1,472	19.5	42.4
Total	1091	-----	34,548	-----	575,687	-----	18,221	-----	7,555	-----	41.5

So far this insurance year, a total of 1,091 policies were sold covering 34.5 million cwt of milk. This amount of milk represents 1.8% of the 2010 annual U.S. milk production.

Note, this data is as of 2/28/2011

How Much to COVER?



LGM Analyzer

Documentation

Premium Estimator

Least Cost Optimizer

Bundled Options (Beta)

If you have saved CSV data from a previous run, you can upload it instead of typing in your farm's data again

Upload a file

<http://dairymgt.info/lgm.php>
http://future.aae.wisc.edu/lgm_analyzer/

Input

Insurance contract month: 2011 Mar

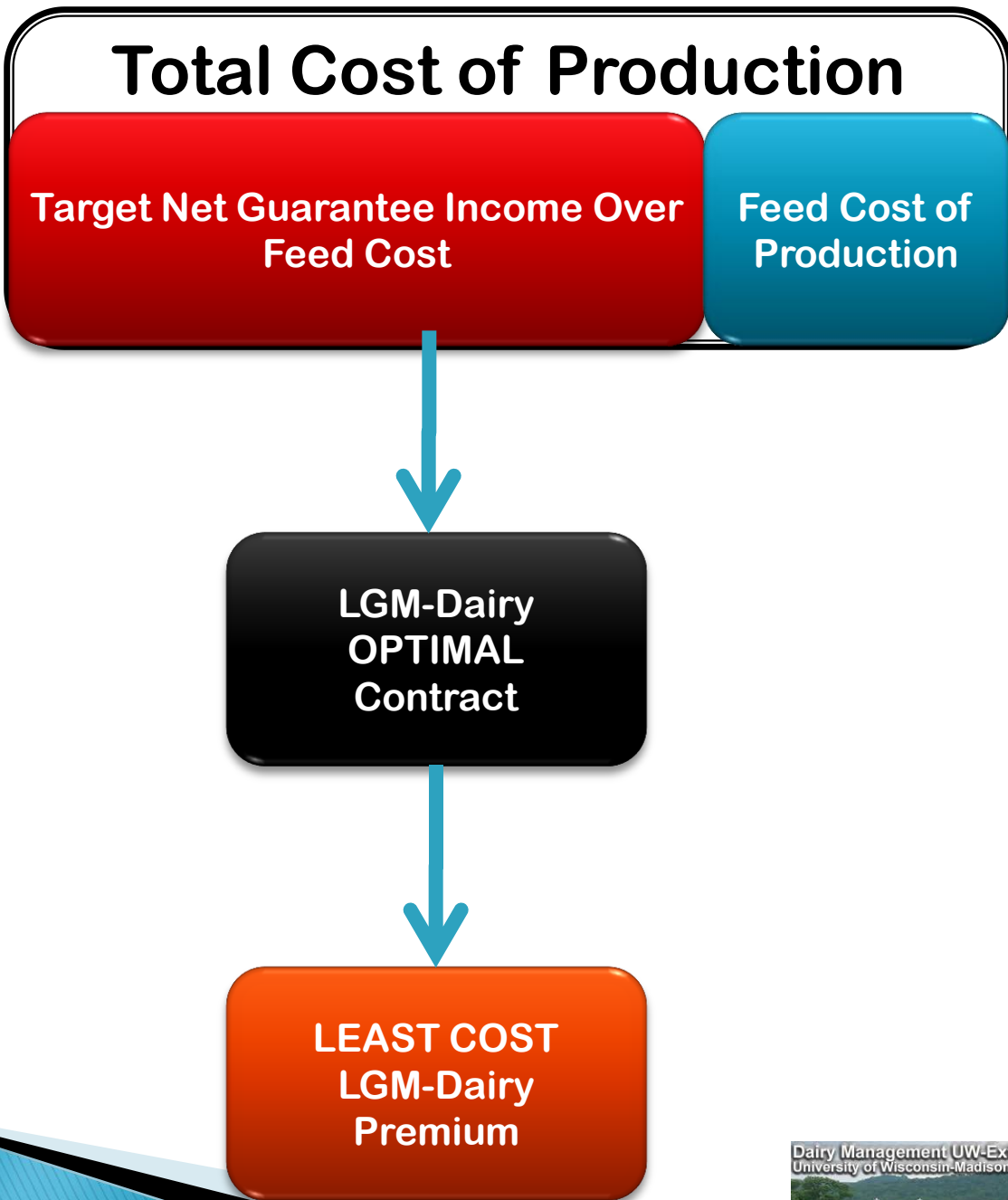
Choose your deductible level \$ /cwt

Feed Values:

The prices we use for the Gross Margin Calculation correspond to future and option prices retrieved on the trade dates: 2011-03-02, 2011-03-03, 2011-03-04

<input checked="" type="checkbox"/> Coverage Month	Production (cwt)		Corn Equiv (tons)		Soybean Meal Equiv (tons)		% covered	Monthly Gross Margin		
Month Year	Milk Qty.	Covered Milk × Expected Price = Milk Revenue	Corn Qty.	Covered Corn × Expected Price = Corn Cost	SBM Qty.	Covered SBM × Expected Price = SBM Cost		Milk Revenue - Corn Cost - SBM Cost - (Deductible × Milk Qty.)	\$/cwt of Farm Milk	\$/cwt of Covered Milk
<input checked="" type="checkbox"/> May 2011	2000	2,000 cwt × \$17.48/cwt = \$34,959	36.0	36 tons × \$7.29/bu = \$9,373	9.7	9.7 tons × \$368.87/ton = \$3,578	100	20,009	10.00	10.00
<input checked="" type="checkbox"/> Jun 2011	2000	4,340 cwt × \$16.98/cwt = \$73,691	36.0	101.1 tons × \$7.31/bu = \$26,393	9.7	22.3 tons × \$370.43/ton = \$8,261	100	34,697	7.99	7.99
<input checked="" type="checkbox"/> Jul 2011	2000	4,188 cwt × \$17.04/cwt = \$71,361	36.0	97.6 tons × \$7.33/bu = \$25,548	9.7	21.5 tons × \$371.99/ton = \$7,998	100	33,627	8.03	8.03
<input checked="" type="checkbox"/> Aug 2011	2000	2,000 cwt × \$17.05/cwt = \$34,098	36.0	36 tons × \$6.96/bu = \$8,948	9.7	9.7 tons × \$368.98/ton = \$3,579	100	19,572	9.79	9.79
<input checked="" type="checkbox"/> Sep 2011	2000	2,000 cwt × \$17.09/cwt = \$34,178	36.0	36 tons × \$6.59/bu = \$8,472	9.7	9.7 tons × \$362.28/ton = \$3,514	100	20,192	10.10	10.10
<input checked="" type="checkbox"/> Oct 2011	2000	2,000 cwt × \$16.94/cwt = \$33,878	36.0	36 tons × \$6.43/bu = \$8,262	9.7	9.7 tons × \$351.68/ton = \$3,411	100	20,205	10.10	10.10
<input checked="" type="checkbox"/> Nov 2011	2000	2,000 cwt × \$16.74/cwt = \$33,478	36.0	36 tons × \$6.26/bu = \$8,052	9.7	9.7 tons × \$351.44/ton = \$3,409	100	20,017	10.01	10.01
<input checked="" type="checkbox"/> Dec 2011	2000	2,000 cwt × \$16.60/cwt = \$33,198	36.0	36 tons × \$6.10/bu = \$7,842	9.7	9.7 tons × \$351.20/ton = \$3,407	100	19,949	9.97	9.97
<input checked="" type="checkbox"/> Jan 2012	2000	4,063 cwt × \$16.15/cwt = \$65,613	36.0	94.7 tons × \$6.13/bu = \$20,729	9.7	20.9 tons × \$351.20/ton = \$7,340	100	33,481	8.24	8.24
<input checked="" type="checkbox"/> Feb 2012	2000	2,000 cwt × \$15.90/cwt = \$31,798	36.0	36 tons × \$6.16/bu = \$7,919	9.7	9.7 tons × \$350.58/ton = \$3,401	100	18,478	9.24	9.24
Total	Farm	26,591 cwt	545 tons	133 tons	100.00%	GMG	240,227	9.03	9.03	
	Covered	26,591 cwt	545 tons	133 tons						





Farm Specific Calculation (Spreadsheet Or Web-based)

LGM-Dairy Least Cost Premium Calculator



Target Net Guarantee IOFC

Corn Price (\$/bu) 6.5

SBM Price (\$/ton) 380

Total Cost of Production

Milk produced (all cow) (lb/cow/d) 70

Total cost of production (\$/cwt milk) 14.206

[More Details](#)

Schedule F

Expenses		
Total Expenses	(\$)	120000
Change in Accounts Payable	(\$)	1500
Change in Prepaid Expenses	(\$)	1200
Total Allocated Costs	(\$)	120300
Total Interest Paid	(\$)	8500
Wages and Benefits Paid	(\$)	12500
Depreciation Claimed	(\$)	15000
Other Costs	(\$)	40000
Total Basic Costs	(\$)	124300
Cwt Eq. Milk Produced	(cwt)	12500
Total Cost of Production	(\$/cwt)	14.206

Feed Cost Production

Feed Consumption (lb/cow/d) **56**

Feed Price (\$/cwt feed) **10.732**

Feed Cost (\$/cow/d) **6.01**

Feed Cost (\$/cwt milk) **8.586**

[More Details](#)

Feed Equivalent

Feed Ingredient	DM (lb/cow/d)	Corn Eq	SBM Eq
ALFALFA Meal, 17% CP	15	0.2248	0.3424
LEGUMES, FORAGE Silage, mid maturity 40-46% NDF	6	0.1754	0.4058
CORN, YELLOW Grain, cracked, dry	20	0.9361	0.012
WHEAT Grain, rolled	15	0.8596	0.1226
ALFALFA Meal, 17% CP		0.2248	0.3424
ALFALFA Meal, 17% CP		0.2248	0.3424
ALFALFA Meal, 17% CP		0.2248	0.3424
ALFALFA Meal, 17% CP		0.2248	0.3424
Total feed	56		
Total feed cost (\$/cow/d)	6.01		
Total feed price (\$/cwt/feed)	10.732		
Feed Equivalents for LGM-Dairy Contract ((lb/cwt milk)	36.04	Corn Equivalents	
	9.65	SBM Equivalents	

Target Net Guarantee IOFC : **5.62**

LGM Analyzer

Documentation

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Least Cost Optimizer

Bundled Options (Beta)

If you have saved CSV data from a previous run, you can upload it instead of typing in your farm's data again

Upload a file

<http://dairymgt.info/lgm.php>
http://future.aae.wisc.edu/lgm_analyzer/

Input

Insurance contract month: 2011 Mar

Choose your deductible level \$ 2.0 /cwt

Feed Values: Enter Manually Lowest Allowed Default Highest Allowed

Target NIOFC: \$ 5.62 /cwt

The prices we use for the Gross Margin Calculation correspond to future and option prices retrieved on the trade dates: 2011-03-02, 2011-03-03, 2011-03-04

<input checked="" type="checkbox"/> Coverage Month	Production (cwt)	Corn Equiv (tons)	Soybean Meal Equiv (tons)
Month Year	Milk Qty.	Corn Qty.	SBM Qty.
<input checked="" type="checkbox"/> May 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Jun 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Jul 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Aug 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Sep 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Oct 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Nov 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Dec 2011	2000	36.0	9.7
<input checked="" type="checkbox"/> Jan 2012	2000	36.0	9.7
<input checked="" type="checkbox"/> Feb 2012	2000	36.0	9.7
Total	26,591 cwt	545 tons	133 tons

Save Input

Optimize Coverages for Least Cost Premium

ent UW-Extension
nsin-Madison

THE UNIVERSITY OF WISCONSIN
Extension
MADISON



LGM Analyzer

Documentation Premium Estimator **Least Cost Optimizer** Bundled Options (Beta)

If you have saved CSV data from a previous run, you can upload it instead of typing in your farm's data again

Upload a file

Input

Insurance contract month: 2011 Mar

Choose your deductible level \$ 2.0 /cwt

Feed Values: Enter Manually Lowest Allowed Default Highest Allowed

Target NIOFC: \$ 5.62 /cwt

The prices we use for the Gross Margin Calculation correspond to future and option prices retrieved on the trade dates: 2011-03-02, 2011-03-03, 2011-03-04

Suggested Coverage (%/month)



<input checked="" type="checkbox"/> Coverage Month	Production (cwt)		Corn Equiv (tons)		Soybean Meal Equiv (tons)		% covered	Monthly Gross Margin		
Month Year	Milk Qty.	Covered Milk × Expected Price = Milk Revenue	Corn Qty.	Covered Corn × Expected Price = Corn Cost	SBM Qty.	Covered SBM × Expected Price = SBM Cost		Milk Revenue - Corn Cost - SBM Cost - (Deductible × Milk Qty.)	\$/cwt of Farm Milk	\$/cwt of Covered Milk
<input checked="" type="checkbox"/> May 2011	2000	2,000 cwt × \$17.48/cwt = \$34,959	36.0	36 tons × \$7.29/bu = \$9,373	9.7	9.7 tons × \$368.87/ton = \$3,578	100	18,009	9.00	9.00
<input checked="" type="checkbox"/> Jun 2011	2000	2,000 cwt × \$16.98/cwt = \$33,959	36.0	36 tons × \$7.31/bu = \$9,409	9.7	9.7 tons × \$370.43/ton = \$3,575	100	16,976	8.49	8.49
<input checked="" type="checkbox"/> Jul 2011	2000	2,000 cwt × \$17.04/cwt = \$34,079	36.0	36 tons × \$7.33/bu = \$9,434	9.7	9.7 tons × \$371.99/ton = \$3,590	100	17,055	8.53	8.53
<input checked="" type="checkbox"/> Aug 2011	2000	2,000 cwt × \$17.05/cwt = \$34,098	36.0	36 tons × \$6.96/bu = \$8,958	9.7	9.7 tons × \$368.98/ton = \$3,561	100	17,580	8.79	8.79
<input checked="" type="checkbox"/> Sep 2011	2000	486 cwt × \$17.09/cwt = \$8,305	36.0	8.8 tons × \$6.59/bu = \$2,061	9.7	2.3 tons × \$362.28/ton = \$850	24.3	4,423	2.21	9.10
<input checked="" type="checkbox"/> Oct 2011	2000	132 cwt × \$16.94/cwt = \$2,236	36.0	2.4 tons × \$6.43/bu = \$546	9.7	0.6 tons × \$351.68/ton = \$224	6.6	1,202	0.60	9.11
<input checked="" type="checkbox"/> Nov 2011	2000	308 cwt × \$16.74/cwt = \$5,156	36.0	5.6 tons × \$6.26/bu = \$1,241	9.7	1.5 tons × \$351.44/ton = \$522	15.4	2,776	1.39	9.01
<input checked="" type="checkbox"/> Dec 2011	2000	444 cwt × \$16.60/cwt = \$7,370	36.0	8 tons × \$6.10/bu = \$1,743	9.7	2.1 tons × \$351.20/ton = \$752	22.2	3,987	1.99	8.98
<input checked="" type="checkbox"/> Jan 2012	2000	1,856 cwt × \$16.15/cwt = \$29,972	36.0	33.4 tons × \$6.13/bu = \$7,321	9.7	9 tons × \$351.20/ton = \$3,145	92.8	15,794	7.90	8.51
<input checked="" type="checkbox"/> Feb 2012	2000	2,000 cwt × \$15.90/cwt = \$31,798	36.0	36 tons × \$6.16/bu = \$7,927	9.7	9.7 tons × \$350.58/ton = \$3,383	100	16,487	8.24	8.24
Total	Farm	20,000 cwt	360 tons	97 tons						
	Covered	13,226 cwt	238 tons	64 tons	66.13%	GMG 114,289	5.71	8.64		

Save Input Calculate LGM Premium Calculate Options Cost Save GMG Calculations Optimize Coverages for Least Cost Premium



TNGIOFC

GIOFC



Unit	Premium	GMG	Net GMG
Total (\$)	1,823	114,223	112,400
Per cwt of Farm Milk (\$/cwt)	0.09	5.71	5.62
Per cwt of Covered Milk (\$/cwt)	0.14	8.64	8.50

Optimized

22% Lower!

Unit	Premium	GMG	Net GMG
Total (\$)	2,207	114,041	111,834
Per cwt of Farm Milk (\$/cwt)	0.11	5.70	5.59
Per cwt of Covered Milk (\$/cwt)	0.17	8.77	8.60

Naïve



Conclusions: LGM–Dairy

- Flexible price risk management tool to control price volatility (bundled options)
- Effective to protect net guarantee income over feed cost (Net GIOFC)
- Important incentives available since December 2010
- Least cost approach gives the most protection to the lowest premium price



Thanks

