

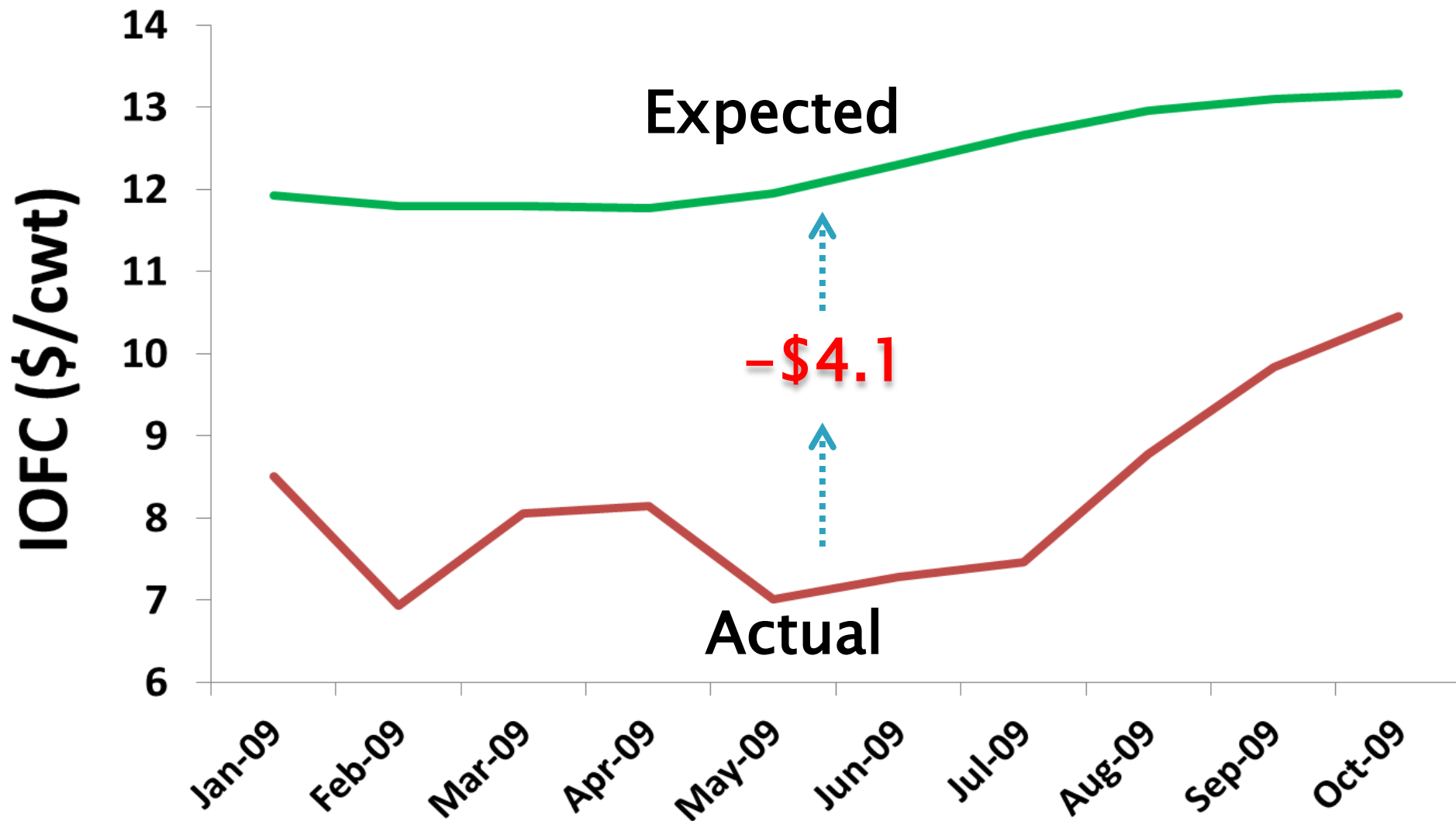


Livestock Gross Margin for Dairy Insurance

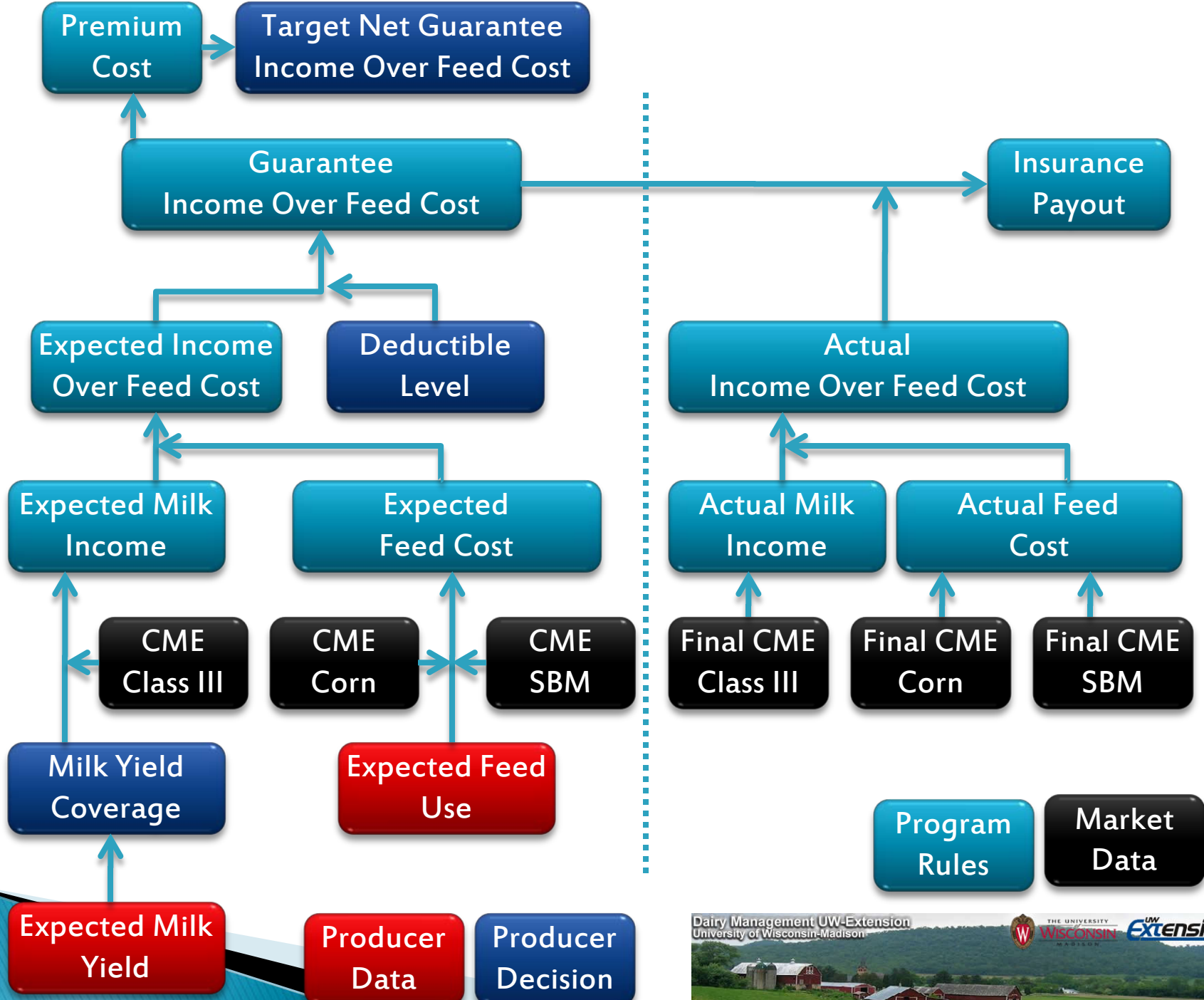
Progressive Operators – Lakeshore Technical College – 28 January 2011

Victor E. Cabrera & Brian W. Gould

Did you know...?

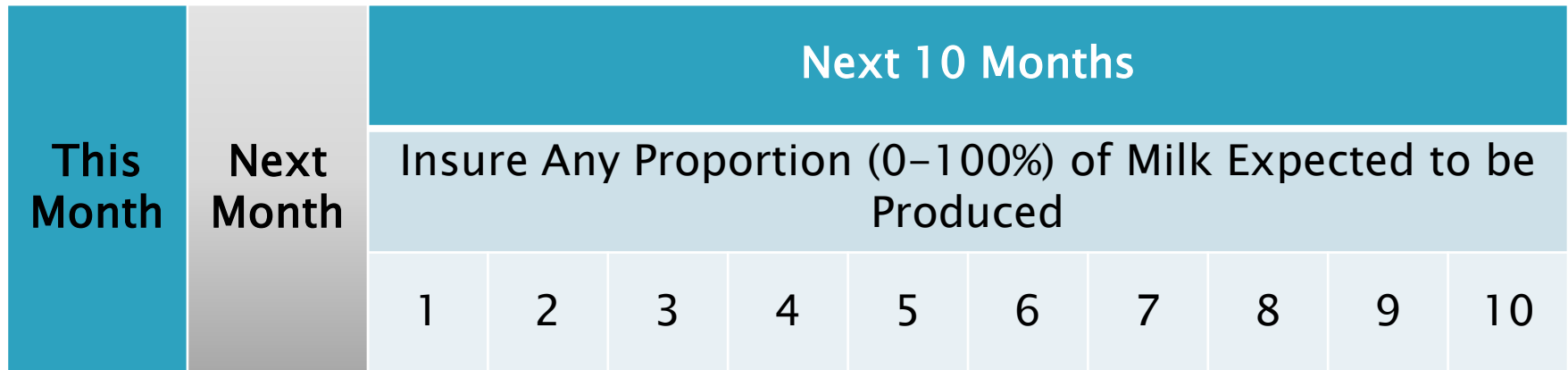


LGM-Dairy Overview



Timeline

Purchase Contract



Collect Indemnity, If Any



Did you know...?

Premium
Cost

Up to 50% SUBSIDY !

Premium
Payment

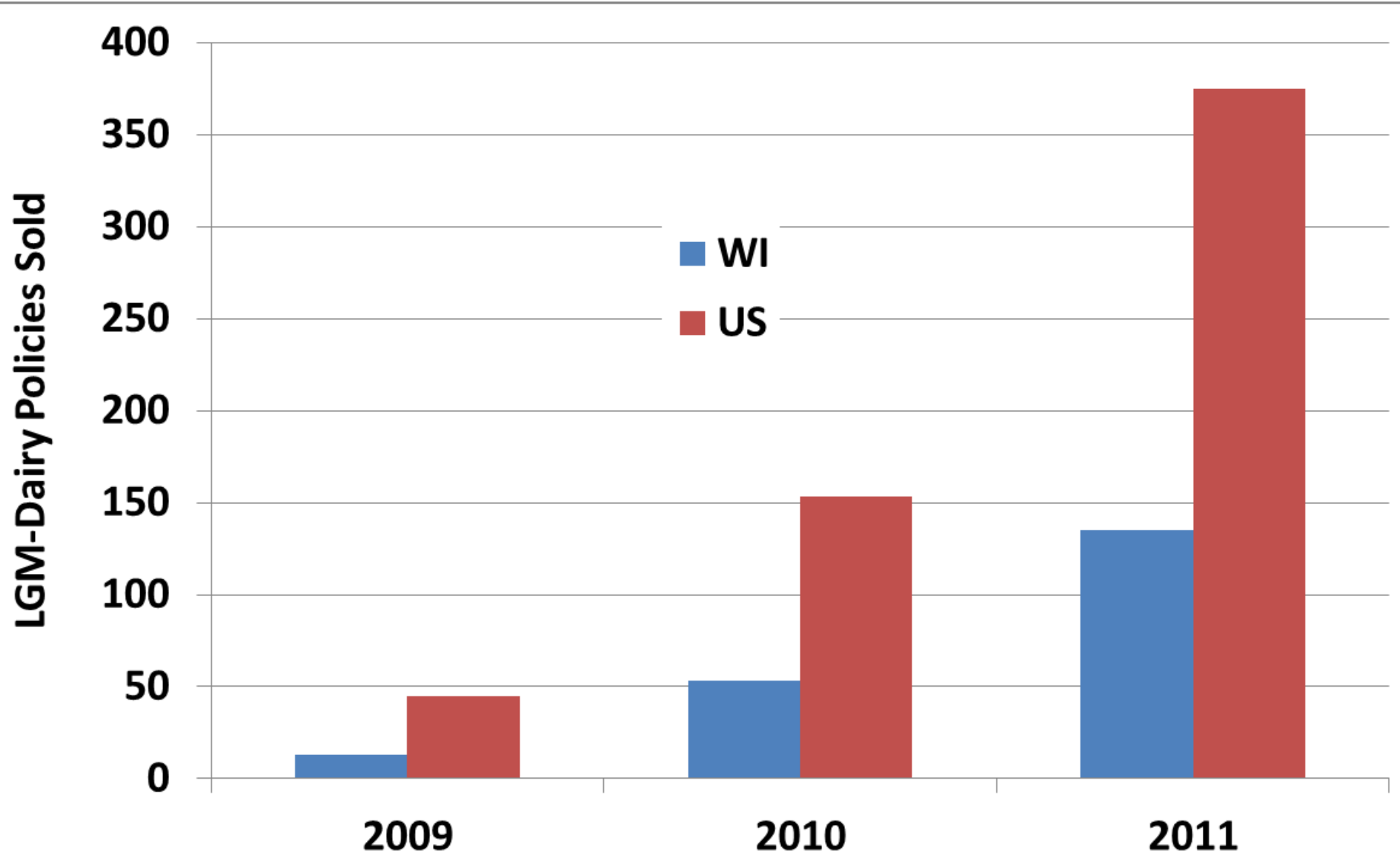
Due at the END of Contract !

Deductible
Level

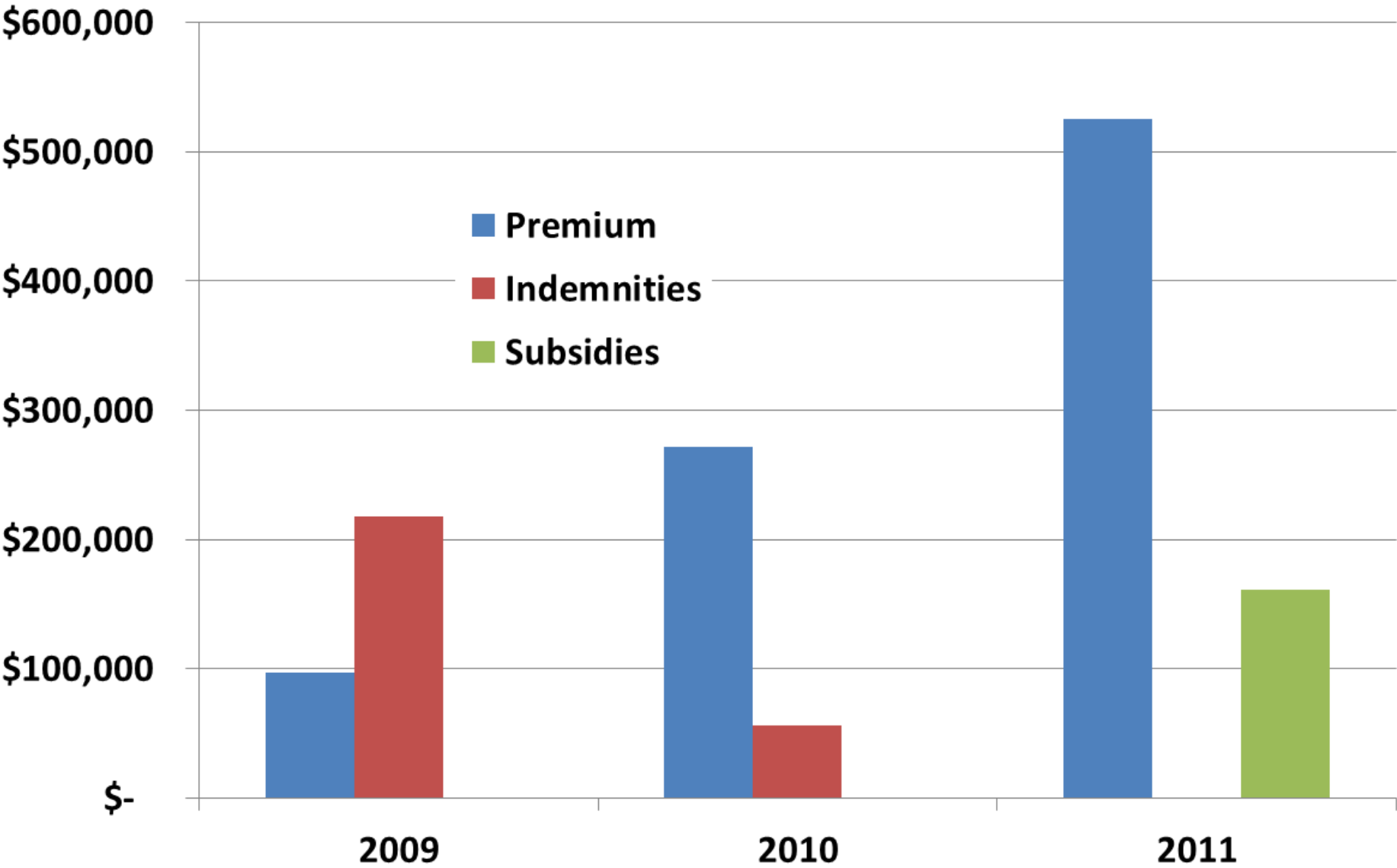
Up to \$2/cwt milk !



LGM-Dairy Policies Sold in Wisconsin and the US



LGM–Dairy Premium, Indemnities and Subsidies



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: 2010 ▾ Dec ▾

Choose your deductible level \$ 1.0 ▾ /cwt

Feed Values: Enter Manually Lowest Allowed Default Highest Allowed

<input checked="" type="checkbox"/> Coverage Month	Production (cwt)		Corn Equiv (tons)		Soybean 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"/> Feb 2011	2000	2,000 cwt × \$13.39/cwt = \$26,780	28	28 tons × \$5.81/bu = \$5,810	4	4 tons × \$347.49/ton = \$1,390	100	17,580	8.79	8.79
<input checked="" type="checkbox"/> Mar 2011	2000	2,000 cwt × \$13.78/cwt = \$27,560	28	28 tons × \$5.89/bu = \$5,890	4	4 tons × \$349.07/ton = \$1,396	100	18,274	9.14	9.14
<input checked="" type="checkbox"/> Apr 2011	2000	2,000 cwt × \$14.19/cwt = \$28,380	28	28 tons × \$5.93/bu = \$5,930	4	4 tons × \$349.35/ton = \$1,397	100	19,053	9.53	9.53
<input checked="" type="checkbox"/> May 2011	2000	2,000 cwt × \$14.32/cwt = \$28,640	28	28 tons × \$5.97/bu = \$5,970	4	4 tons × \$349.63/ton = \$1,399	100	19,271	9.64	9.64
<input checked="" type="checkbox"/> Jun 2011	2000	2,000 cwt × \$14.61/cwt = \$29,220	28	28 tons × \$5.99/bu = \$5,990	4	4 tons × \$349.90/ton = \$1,400	100	19,830	9.92	9.92
<input checked="" type="checkbox"/> Jul 2011	2000	2,000 cwt × \$15.07/cwt = \$30,140	28	28 tons × \$6.01/bu = \$6,010	4	4 tons × \$350.17/ton = \$1,401	100	20,729	10.36	10.36
<input checked="" type="checkbox"/> Aug 2011	2000	2,000 cwt × \$15.26/cwt = \$30,520	28	28 tons × \$5.78/bu = \$5,780	4	4 tons × \$341.50/ton = \$1,366	100	21,374	10.69	10.69
<input checked="" type="checkbox"/> Sep 2011	2000	2,000 cwt × \$15.41/cwt = \$30,820	28	28 tons × \$5.54/bu = \$5,540	4	4 tons × \$330.07/ton = \$1,320	100	21,960	10.98	10.98
<input checked="" type="checkbox"/> Oct 2011	2000	2,000 cwt × \$15.49/cwt = \$30,980	28	28 tons × \$5.47/bu = \$5,470	4	4 tons × \$314.07/ton = \$1,256	100	22,254	11.13	11.13
<input checked="" type="checkbox"/> Nov 2011	2000	2,000 cwt × \$15.47/cwt = \$30,940	28	28 tons × \$5.41/bu = \$5,410	4	4 tons × \$312.79/ton = \$1,251	100	22,279	11.14	11.14
Total	Farm	20,000 cwt	280 tons	40 tons	100.00%	GMG	202,604	10.13	10.13	
	Covered	20,000 cwt	280 tons	40 tons						

Save Input

Calculate LGM Premium

Calculate Options Cost

Save GMG Calculations

<input checked="" type="checkbox"/> Coverage Month	Production (cwt)		Corn Equiv (tons)		Soybean Equiv (tons)		% covered
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	
<input checked="" type="checkbox"/> Feb 2011	2000	2,000 cwt × \$13.39/cwt = \$26,780	28	28 tons × \$5.81/bu = \$5,810	4	4 tons × \$347.49/ton = \$1,390	100
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<input checked="" type="checkbox"/> Apr 2011	2000	2,000 cwt × \$14.19/cwt = \$28,380	28	28 tons × \$5.93/bu = \$5,930	4	4 tons × \$349.35/ton = \$1,397	100
<input checked="" type="checkbox"/> May 2011	2000	2,000 cwt × \$14.32/cwt = \$28,640	28	28 tons × \$5.97/bu = \$5,970	4	4 tons × \$349.63/ton = \$1,399	100
<input checked="" type="checkbox"/> Jun 2011	2000	2,000 cwt × \$14.61/cwt = \$29,220	28	28 tons × \$5.99/bu = \$5,990	4	4 tons × \$349.90/ton = \$1,400	100
<input checked="" type="checkbox"/> Jul 2011	2000	2,000 cwt × \$15.07/cwt = \$30,140	28	28 tons × \$6.01/bu = \$6,010	4	4 tons × \$350.17/ton = \$1,401	100
<input checked="" type="checkbox"/> Aug 2011	2000	2,000 cwt × \$15.26/cwt = \$30,520	28	28 tons × \$5.78/bu = \$5,780	4	4 tons × \$341.50/ton = \$1,366	100
<input checked="" type="checkbox"/> Sep 2011	2000	2,000 cwt × \$15.41/cwt = \$30,820	28	28 tons × \$5.54/bu = \$5,540	4	4 tons × \$330.07/ton = \$1,320	100
<input checked="" type="checkbox"/> Oct 2011	2000	2,000 cwt × \$15.49/cwt = \$30,980	28	28 tons × \$5.47/bu = \$5,470	4	4 tons × \$314.07/ton = \$1,256	100
<input checked="" type="checkbox"/> Nov 2011	2000	2,000 cwt × \$15.47/cwt = \$30,940	28	28 tons × \$5.41/bu = \$5,410	4	4 tons × \$312.79/ton = \$1,251	100
Total	Farm	20,000 cwt	280 tons		40 tons		100.00%
	Covered	20,000 cwt	280 tons		40 tons		

LGM-DAIRY FEED EQUIVALENTS CONVERSION

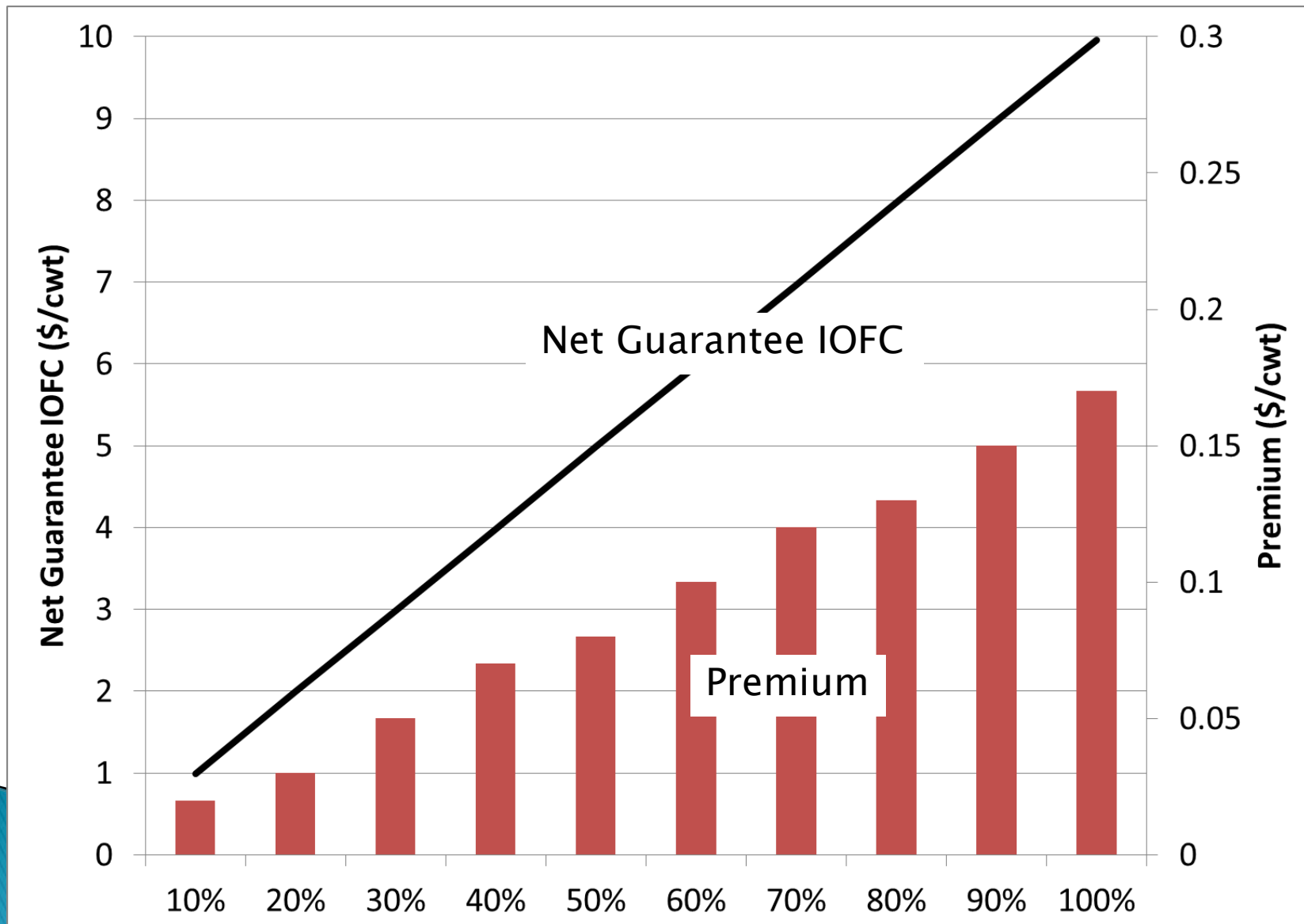
1. Select the feed you want to convert to corn and SBM equivalents from the pull down menu
2. The tool will provide the CP and NEL (Avg. 3x & 4x) for the selected feed (NRC, 2001)
3. CP and NEL values can be edited for a more precise calculation (leave blank when no edits needed)
4. Green cells indicate the conversion factors in terms of corn and SBM according to NRC (2001)
5. Results are presented in blue colored cells as corn and SBM equivalents to be used in the LGM-Dairy.

Equation as per NRC 2001	Corn and SBM Equation		
<i>Protein: 0.094 x + 0.499 y</i>	Protein	0.094	0.499
<i>Energy: 1.955 x + 2.075 y</i>	Nel	1.955	2.075

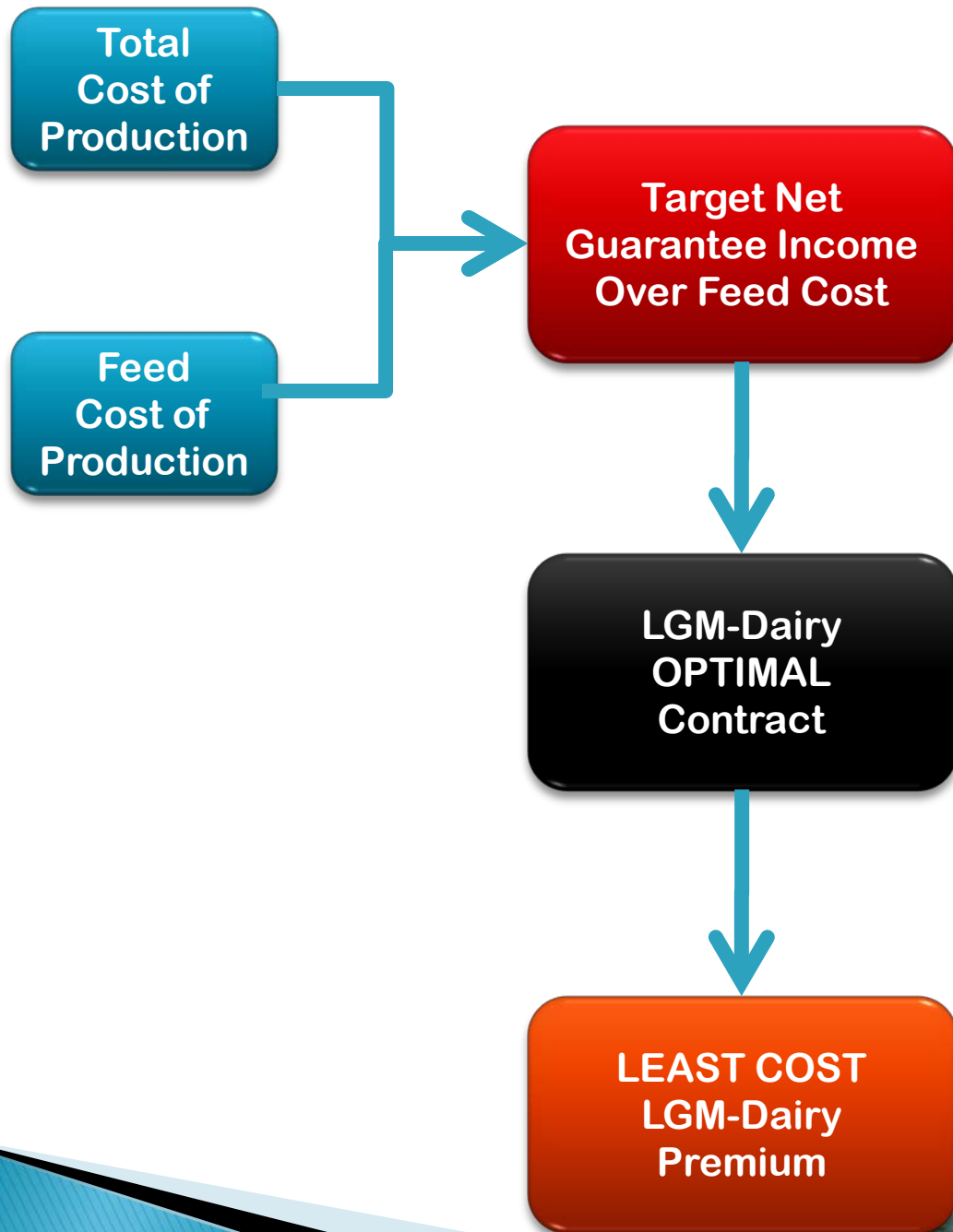
SELECT FEED AND COMPOSITION		
CORN, YELLOW, Grain, ground, high moisture		
INPUT CP AND NEL VALUES		
		Edit Values
Crude Protein % DM	9.2%	<input type="text"/> %
NEL (Mcal/kg DM)	2.03	<input type="text"/>
OUTPUT		
CALCULATED FEED CONVERSION FACTORS		
Corn Equivalents		1.0533
SBM Equivalents		-0.014

☑ Coverage Month		% covered	Monthly Gross Margin		
Month Year			Milk Revenue - Corn Cost - SBM Cost - (Deductible × Milk Qty.)	\$/cwt of Farm Milk	\$/cwt of Covered Milk
☑	Feb 2011	100	17,580	8.79	8.79
☑	Mar 2011	100	18,274	9.14	9.14
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☑	May 2011	100	19,271	9.64	9.64
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☑	Aug 2011	100	21,374	10.69	10.69
☑	Sep 2011	100	21,960	10.98	10.98
☑	Oct 2011	100	22,254	11.13	11.13
☑	Nov 2011	100	22,279	11.14	11.14
Total	Farm Covered	100.00%	GMG 202,604	10.13	10.13

How Much Coverage?



LGM-Dairy Optimal Contract



Farm Specific Calculation (Spreadsheet)

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](#)

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
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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**

Insurance contract month: 2010 Dec

Choose your deductible level \$ 1.0 /cwt

Feed Values: Enter Manually Lowest Allowed Default Highest Allowed

Target NIOFC: \$ 5.62 /cwt

<input checked="" type="checkbox"/> Coverage Month	Production (cwt)	Corn Equiv (tons)	Soybean Equiv (tons)
Month Year	Milk Qty.	Corn Qty.	SBM Qty.
<input checked="" type="checkbox"/> Feb 2011	2000	28	4
<input checked="" type="checkbox"/> Mar 2011	2000	28	4
<input checked="" type="checkbox"/> Apr 2011	2000	28	4
<input checked="" type="checkbox"/> May 2011	2000	28	4
<input checked="" type="checkbox"/> Jun 2011	2000	28	4
<input checked="" type="checkbox"/> Jul 2011	2000	28	4
<input checked="" type="checkbox"/> Aug 2011	2000	28	4
<input checked="" type="checkbox"/> Sep 2011	2000	28	4
<input checked="" type="checkbox"/> Oct 2011	2000	28	4
<input checked="" type="checkbox"/> Nov 2011	2000	28	4
Total	20,000 cwt	280 tons	40 tons

Save Input

Optimize Coverages for Least Cost Premium



<input checked="" type="checkbox"/> Coverage Month	% covered	Monthly Gross Margin		
Month Year		Milk Revenue - Corn Cost - SBM Cost - (Deductible x Milk Qty.)	\$/cwt of Farm Milk	\$/cwt of Covered Milk
<input checked="" type="checkbox"/> Feb 2011	100	17,580	8.79	8.79
<input checked="" type="checkbox"/> Mar 2011	100	18,274	9.14	9.14
<input checked="" type="checkbox"/> Apr 2011	100	19,053	9.53	9.53
<input checked="" type="checkbox"/> May 2011	100	19,271	9.64	9.64
<input checked="" type="checkbox"/> Jun 2011	54.3	10,768	5.38	9.92
<input checked="" type="checkbox"/> Jul 2011	18.1	3,752	1.88	10.36
<input checked="" type="checkbox"/> Aug 2011	11.5	2,458	1.23	10.69
<input checked="" type="checkbox"/> Sep 2011	7.4	1,625	0.81	10.98
<input checked="" type="checkbox"/> Oct 2011	28.3	6,298	3.15	11.13
<input checked="" type="checkbox"/> Nov 2011	66.2	14,749	7.37	11.14



Unit	Premium	GMG	Net GMG
Total (\$)	1,437	113,837	112,400
Per cwt of Farm Milk (\$/cwt)	0.07	5.69	5.62

Total	Farm Covered	58.58%	GMG 113,827	5.69	9.72
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Did you know...?

SAVINGS

30% or more PREMIUM cost



Conclusions: LGM–Dairy

- Bundled Class III puts and corn/SBM calls options
- Flexible price risk management tool
- Effective to protect net guarantee IOFC
- Important incentives available now



Thanks

