Livestock Gross Margin for Dairy Cattle
Market Value of Milk Minus Feed Cost
LGM DAIRY

- LGM Dairy provides protection against the loss of gross margin (market value of milk minus feed cost) on the milk and feed that the insured chooses to use.
- Provides coverage for dairymen from production and marketing risks.
The policy uses futures prices for corn, soybean meal, and milk to determine the expected gross margin and the actual gross margin.

The price the producer receives at the local market is not used in these calculations.

All milk is insured at 100% share.
LGM Dairy – Eligible States

- Livestock Gross Margin for Dairy Cattle Insurance is eligible for agricultural producers of milk in the 48 contiguous states
LGM Dairy

- Only milk sold for commercial or private sale primarily intended for human consumption from dairy cattle fed in the eligible 48 contiguous states is eligible for coverage.
LGM Dairy-Insurance Period

- There are 12 insurance periods in each calendar year
- Each period runs for 11 months
- No milk is insured for the first month of each period
- The Sales Closing Date is the last business Friday of each month until 8:00 pm Central Time the following evening
An example of the sales date would be June 25th, however the 1st day of coverage would be August 1st.
LGM Dairy

- This product is limited in capacity under FCIC Underwriting Capacity Manager (UCM)
- This product is distributed on first come, first serve basis
- Not offered after capacity is full or anytime the underwriting capacity manager is not functional
A subsidy is available but only if there are target marketings in at least 2 months of an insurance period.

- No subsidy is available if only 1 reported month of target marketings.

Subsidy amount will be determined by the dollar deductible.

- A higher deductible will receive a higher premium subsidy than a $0 deductible.
LGM Dairy-Policy Basics

- Premium is now due at the end of the coverage period rather than at the time of purchase.
- Premium billing date will be the first business day of the month following the last month that you report insured marketings in your target marketings report.
LGM Dairy-Target Marketings & Target Feed

- A determination made by the producer as to the number of cwt of milk elected to be insured, and the quantity of feed to be fed for each month

- Target Marketings must be less than or equal to the Approved Target Marketings as certified by the producer
LGM Dairy-Approved Target Marketings

- Maximum amount of milk that may be stated as target marketings on the application
- These are certified by the producer and subject to inspection by the Insurance Company
LGM Dairy-Approved Target Marketings

- A producers target marketings will be the lesser of the capacity of the producers dairy operation for the 10 month (first month no coverage) insurance period as determined by the insurance provider and the UCM capacity limit as stated in the special provisions.
LGM Dairy-Actual Marketings

- The total amount of milk sold by the producer in each month of the insurance period, for which you have proof of sale
- Actual marketings are used to verify ownership of milk and determine approved target marketings
Expected Milk Price

- The simple average of the daily settlement prices of the CME Group Class III milk futures contract for the month during the expected price measurement period
- The Commodity Exchange Endorsement has the information for the expected period
The actual price measurement period is the last 3 trading days prior to the contract expiration.

Refer to the Commodity Exchange Endorsement.
Feed Quantities

- Producers must supply the total number of tons of corn or corn equivalent and the tons of soybean meal or protein meal equivalent that they expect to feed each month in which they insure their milk.
Feed Equivalents

- For feedstuffs other than corn and soybean meal, a list of other feed, (wheat, cottonseed, distiller’s grain, etc) can be found in the LGM Dairy Commodity Exchange Endorsement.

- There are conversion factors for each commodity, some are in bushels and others are in tons.
Feed Restrictions

- Corn or Corn equivalent is restricted to be between 0.00364 and 0.0381 tons per cwt. of milk
- Soybean meal or meal equivalent is restricted to be between 0.000805 and 0.013 tons per cwt. of milk
Feed Restrictions

- Default values of 0.014 tons (0.5 bushels) of corn and 0.002 tons (4 pounds) of soybean meal per hundredweight (cwt.) of milk can be used if producers do not wish to choose feed amounts.
Feed Conversions

- Please refer to the commodity exchange endorsement to see the factors and conversion rates for other feed.
- Feeds should be combined when creating corn and soybean meal equivalents.
- The next slide has some of the feed conversions.
## Commodity Exchange Endorsement

### Table 2. Suggested Conversion Rates for Dairy Feeds, Based on Protein and Energy Content per Ton

<table>
<thead>
<tr>
<th>Feed</th>
<th>Soybean Meal Ratio</th>
<th>Corn Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley</td>
<td>0.111</td>
<td>0.866</td>
</tr>
<tr>
<td>Blood meal</td>
<td>2.025</td>
<td>-1.235</td>
</tr>
<tr>
<td>Brewer’s grain, dry</td>
<td>0.433</td>
<td>0.357</td>
</tr>
<tr>
<td>Brewer’s grain, wet (21% DM)</td>
<td>0.099</td>
<td>0.081</td>
</tr>
<tr>
<td>Brewer’s grain, wet (40% DM)</td>
<td>0.188</td>
<td>0.155</td>
</tr>
<tr>
<td>Corn, shelled</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Corn and cob meal (ear corn)</td>
<td>-0.007</td>
<td>0.985</td>
</tr>
<tr>
<td>Corn gluten meal, dry</td>
<td>1.408</td>
<td>-0.420</td>
</tr>
<tr>
<td>Corn gluten feed, dry</td>
<td>0.304</td>
<td>0.597</td>
</tr>
<tr>
<td>Whole cottonseed</td>
<td>0.323</td>
<td>0.850</td>
</tr>
<tr>
<td>Cottonseed meal (41% CP)</td>
<td>0.905</td>
<td>0.036</td>
</tr>
<tr>
<td>Cottonseed meal (36% CP)</td>
<td>0.867</td>
<td>0.015</td>
</tr>
<tr>
<td>Distiller’s grain with solubles, dried (92% DM)</td>
<td>0.394</td>
<td>0.686</td>
</tr>
<tr>
<td>Distiller’s grain with solubles, wet (60% DM)</td>
<td>0.257</td>
<td>0.447</td>
</tr>
<tr>
<td>Feather meal</td>
<td>1.600</td>
<td>-0.743</td>
</tr>
<tr>
<td>Fish meal, herring</td>
<td>1.875</td>
<td>-0.865</td>
</tr>
<tr>
<td>Fish meal, menhaden</td>
<td>1.651</td>
<td>-0.768</td>
</tr>
<tr>
<td>Hominy</td>
<td>0.057</td>
<td>0.977</td>
</tr>
<tr>
<td>Meat meal</td>
<td>1.227</td>
<td>-0.349</td>
</tr>
<tr>
<td>Meat and bone meal</td>
<td>1.426</td>
<td>-0.555</td>
</tr>
</tbody>
</table>
Expected Corn Price

- For months in which a CME Group corn contract expires, it is the simple average of the settlement prices for the CME Group corn futures contract for the month during the expected price measurement period.
Expected Corn Price

- For months without a contract, it is a weighted average of the immediately surrounding months simple average of the daily settlement prices during the expected price measurement period.
- Please refer to the commodity exchange endorsement for the chart showing the months.
Expected Soybean Meal Price

- The expected soybean meal price is determined the same way the corn price is, using the CME Group soybean meal contract.
- Please refer to the commodity exchange endorsement to view the months used.
Expected Cost of Feed

- The expected cost of feed for each month equals the target corn (or corn equivalent) to be fed times 2000/56 (converting tons to bushels) X the expected corn price for that month.
- Plus the target protein meal (or protein meal equivalent) X the expected soybean meal price for that month.
Example

- Dairy operation produces 1,560 cwt of milk in a month
- They have target feed levels of 20.5 tons of corn and 6 tons of soybean meal
- Expected Corn price is $4.40/bu
- Expected soybean meal price is $410/ton
Example-Cost of Feed

- 20.5 tons × (2000/56) × $4.40 + 6 × $410/ton
- Corn would be $3221.40
- Soybean Meal would be $2460
- Expected cost of feed would be $5681.40
Expected Milk Price

- CME Group Class III milk futures contract for the month during the actual price measurement period
- For our example the price will be $17cwt
- 1,560 cwt/milk X $17 per cwt
- $26,520
Expected Gross Margin

- Expected Milk price – Expected Cost of Feed
- $26,520 - $5,681.40 = $20,838.60
- This is the Expected Gross Margin
Expected Gross Margin per Month

- Expected revenue less the expected cost of feed for the month
Expected Total Gross Margin

- The sum of the expected gross margins per month across all months of the insurance period
Deductibles

Deductibles are available on the cwt. of milk

They are available from $0.0 to $2.00 per cwt of milk in 10 cent increments

$26,520 – ($0.10 X 1,560 cwt) = $26,364
Actual Cost of Feed

For each month equals the target corn (or equivalent feed) to be fed times (2000/56) (to convert tons to bushels) times the actual corn price for that month plus the target soybean meal (or equivalent feed) to be fed times the actual soybean meal price for that month.
Example continued

- In our example we have 20.5 tons of corn and 6 tons of soybean meal.
- The actual corn price is $4.80/bu.
- The actual soybean meal price is $437/ton.
**Actual Cost of Feed**

- $20.5 \times \left( \frac{2,000}{56} \right) \times $4.80 + (6 \times $437)$
- Corn is $3514.25$
- Soybean meal is $2622$
- Actual feed cost is $6136.25$
Actual Milk Price

- The simple average of the daily settlement prices of the CME Group Class III milk futures contract for the month during the actual price measurement period
- For our example, we will use $16/cwt.
Actual Gross Margin

- Actual revenue less the actual cost of feed for the month
- $1,560 \text{ cwt} \times $16/\text{cwt} = $24,960
- Actual feed cost is $6,136.25
- $24,960 - $6,136.25 = $18,823.75
Actual Gross Margin

- Expected Gross Margin is $20,838.60
- Actual Gross Margin is $18,823.75
- The difference is $2,014.85
- That would be the indemnity for the month
Actual Total Gross Margin

- The sum of actual gross margins per month across all months of the insurance period
Gross Margin Guarantee

- The gross margin guarantee for an insurance period is the expected total gross margin for an insurance period minus the deductible.
Target Marketings Report

- Must be submitted on our form by the sales closing date for each insurance period in which you desire coverage
  - Due at the time of application in the initial insurance period
  - In subsequent insurance periods is due by the sales closing date
Marketing Report

- Report submitted by the producer on our form showing for each month actual marketings for that month of milk insured under the policy
- The report must be submitted with copies of sales receipts that provide records of the actual milk sold
LGM-Sample Quote
LGM-Sample Quote
# LGM-Expected and Actual Gross Margin Report

## LGM Expected and Actual Gross Margin - Report For 2014, Missouri, Dairy Cattle

### Dairy Cattle (0847) No Type Specified (997) Oct. - Aug. Insurance Period (910)

<table>
<thead>
<tr>
<th>Month 2 (November)</th>
<th>Month 3 (December)</th>
<th>Month 4 (January)</th>
<th>Month 5 (February)</th>
<th>Month 6 (March)</th>
<th>Month 7 (April)</th>
<th>Month 8 (May)</th>
<th>Month 9 (June)</th>
<th>Month 10 (July)</th>
<th>Month 11 (August)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected Commodity Price - Corn</td>
<td>4.63</td>
<td>4.55</td>
<td>4.59</td>
<td>4.64</td>
<td>4.68</td>
<td>4.72</td>
<td>4.76</td>
<td>4.79</td>
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<tr>
<td>Expected Commodity Price - Soybean Meal</td>
<td>417.54</td>
<td>416.77</td>
<td>415.10</td>
<td>410.65</td>
<td>406.20</td>
<td>406.62</td>
<td>395.03</td>
<td>392.75</td>
<td>390.47</td>
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### Dairy Cattle (0847) No Type Specified (997) Nov. - Sep. Insurance Period (911)

<table>
<thead>
<tr>
<th>Month 2 (December)</th>
<th>Month 3 (January)</th>
<th>Month 4 (February)</th>
<th>Month 5 (March)</th>
<th>Month 6 (April)</th>
<th>Month 7 (May)</th>
<th>Month 8 (June)</th>
<th>Month 9 (July)</th>
<th>Month 10 (August)</th>
<th>Month 11 (September)</th>
<th>Month 11 (August)</th>
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<tbody>
<tr>
<td>Actual Commodity Price - Corn</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Actual Commodity Price - Milk</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Expected Commodity Price - Corn</td>
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<td>4.45</td>
<td>4.49</td>
<td>4.53</td>
<td>4.58</td>
<td>4.62</td>
<td>4.66</td>
<td>4.69</td>
<td>4.73</td>
<td>4.76</td>
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<td>Expected Commodity Price - Milk</td>
<td>17.84</td>
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<td>Expected Commodity Price - Soybean Meal</td>
<td>423.63</td>
<td>414.40</td>
<td>407.89</td>
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<td>396.62</td>
<td>391.87</td>
<td>390.04</td>
<td>388.20</td>
<td>383.83</td>
<td>374.10</td>
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### Dairy Cattle (0847) No Type Specified (997) Dec. - Oct. Insurance Period (912)

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<th>Month 2 (January)</th>
<th>Month 3 (February)</th>
<th>Month 4 (March)</th>
<th>Month 5 (April)</th>
<th>Month 6 (May)</th>
<th>Month 7 (June)</th>
<th>Month 8 (July)</th>
<th>Month 9 (August)</th>
<th>Month 10 (September)</th>
<th>Month 11 (October)</th>
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<tbody>
<tr>
<td>Actual Commodity Price - Corn</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Actual Commodity Price - Milk</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Expected Commodity Price - Corn</td>
<td>4.23</td>
<td>4.26</td>
<td>4.28</td>
<td>4.32</td>
<td>4.36</td>
<td>4.40</td>
<td>4.43</td>
<td>4.46</td>
<td>4.49</td>
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<tr>
<td>Expected Commodity Price - Milk</td>
<td>17.29</td>
<td>16.93</td>
<td>16.75</td>
<td>16.73</td>
<td>16.68</td>
<td>16.82</td>
<td>17.09</td>
<td>17.15</td>
<td>17.19</td>
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<tr>
<td>Expected Commodity Price - Soybean Meal</td>
<td>406.80</td>
<td>406.20</td>
<td>402.60</td>
<td>398.39</td>
<td>394.17</td>
<td>392.04</td>
<td>389.90</td>
<td>382.33</td>
<td>368.70</td>
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