Wisconsin Calculated Milk Cost of Production

August 2010

Ken Bolton
UW-Extension
Center for Dairy Profitability

The monthly predicted Cost of Production (COP) for milk in Wisconsin is intended for use by dairy producers making production and financial management decisions. It is a calculated cost as it predicts the Mailbox Price (net hauling charges) of milk from the Class III Futures using the regression formula of Gould. An estimated MILC Program payment amount is made, also predicted by Gould http://future.aae.wisc.edu/milc.html. Cracked shelled corn, Hi pro soybean meal (SBOM), TM salt and Dicalcium phosphate prices used in this analysis are Southern Wisconsin quotes which include delivery to the farm. The hay price is the monthly USDA, NASS national alfalfa average quote prior to this report. Corn silage is valued from the “Pricer.exe” spreadsheet by Howard (as fed + $15). An assumed blended forage ration of 50:50 (Dry Matter basis) haylage:corn silage value is calculated based on the above determined prices. The “Wisconsin Dairy Enterprise Planning Budget (2008)” by Jones and Barnett is utilized in calculating COP.

The Class III Futures price on August 19, 2010 settled at $15.12 (up $1.36 from July) yielding a predicted Mailbox Price of $15.99/cwt (+$1.25 from the July price of $14.74) with seasonal adjustments. No MILC payment is predicted for August milk. Income is compared to feed prices of; corn (cracked) - $4.63/bu. (+$0.26), SBOM- $385/ton (-$2.00), TM Salt- $16.92/cwt. (-$0.35) and Dical- $43.13/cwt (NC from July). The national average alfalfa price reported by USDA for July was $112/ton (-$2.00) and the estimated value of corn silage is $35/ton (+$1.00), both on an as-fed basis.

The value of a purchased replacement heifer $1,288 (-$62 from July), heifer calf at $131.25 (+$23.75) and a 1,300 lb. cull cow of $653.90 (-$93.60) are averages reported by Wisconsin markets for the week of this report. Assumed production factors are common to the industry. Because the “Wisconsin Dairy Enterprise Budget 2008” assumes the sale of the heifer calf and purchase of a replacement at freshening, the calculated IOFC is for a lactating cow only. Variable costs beyond feed are typical of those reported by dairy producers submitting financial records to the AgFA data base with the cost of developing a replacement heifer factored out. Fixed costs are those calculated by the “Wisconsin Dairy Enterprise Budget (2008)” for the purpose of reporting a calculated COP for a 200 cow herd based on a Double-8 milking parlor. Fixed costs include depreciation, repairs, taxes, insurance and a return to labor and management. All spreadsheet inputs may be changed to fit your particular herd description.

All values used in the Wisconsin Calculated Milk COP are for demonstration purposes only. Your actual prices will vary. Those using this information are advised to access the University of Wisconsin - Center for Dairy Profitability website at http://cdp.wisc.edu/Welcome.htm to calculate your COP utilizing your farm specific financial and production data as well as to review and use the other Decision Making Aids, budgets and tools available on the site.

A COP analysis using the “whole farm” approach will yield results different from those obtained via enterprise analysis. Those who intend to utilize the results in identifying a “good price” for marketing or production input decisions may want to use the (this) enterprise analysis derived price while those intending to make long term production decisions and for comparisons to other farms may choose the “whole farm” cost per CWT EQ. or, Per Dollar or Percent of Gross Revenue analysis methods.

A $15.99 expected Mailbox Price relative to current feed prices produces negative margins for the dairy enterprise producing below 20,869 lbs/cow/year given total assumed feed, other variable and
fixed costs, including a full return to labor and management. No MILC payment is expected for August. Because of wide variability in fixed costs, labor and management charges from farm to farm and to present a size-neutral perspective, a detailed reporting of Returns Over Feed and Variable Costs per CWT is offered in the table below instead of expected revenue per cow and Net Return.

A fairly significant increase in the price of corn was partially offset by price declines for hay, SBOM and salt however, the major factor in August was a $1.25/cwt increase in milk price. This boosted IOFC by $1.19/cwt of milk sold relative to July. As a result, Feed Cost per Dollar of Milk Income declined by $0.04/cwt from $0.51 to $0.47. Returns Over Feed Costs are evident at production levels above 3,957 lbs milk/cow/year. Returns over both feed and other variable costs are positive for all production levels from 10,725 lbs/cow/year and above.

The follow table summarizes calculated Returns Over Feed and Variable Costs for August.

### Returns Over Feed and Total Variable Costs per CWT

For A Mail Box Price of $15.99/CWT

For August 2010 Milk

<table>
<thead>
<tr>
<th>Production per Year</th>
<th>Returns Over Feed Costs/CWT</th>
<th>Returns Over Total Variable Costs/CWT</th>
</tr>
</thead>
<tbody>
<tr>
<td>18,000 lbs.</td>
<td>$8.05</td>
<td>$4.17</td>
</tr>
<tr>
<td>20,000 lbs.</td>
<td>8.27</td>
<td>4.78</td>
</tr>
<tr>
<td>22,000 lbs.</td>
<td>8.46</td>
<td>5.29</td>
</tr>
<tr>
<td>24,000 lbs.</td>
<td>8.61</td>
<td>5.71</td>
</tr>
<tr>
<td>26,000 lbs.</td>
<td>8.74</td>
<td>6.06</td>
</tr>
<tr>
<td>28,000 lbs.</td>
<td>8.86</td>
<td>6.36</td>
</tr>
<tr>
<td>30,000 lbs.</td>
<td>8.95</td>
<td>6.63</td>
</tr>
</tbody>
</table>

See the chart below for the developing trend line of monthly Return Over Feed Cost per CWT and Feed Cost per Dollar of Gross Revenue for 2009 and 2010.
Wisconsin Calculated COP for Milk

Return Over Feed Cost
And
Feed Cost Per Dollar of Milk Income

22,000 lb Production

2009-2010 Monthly Trends

Ken Bolton, kenneth.bolton@ces.uwex.edu, University of Wisconsin-Madison