The Producer Price and Milk Cost of Production Order, amendment

Regulation  7/2003
Registered  January 15, 2003

Manitoba Regulation 77/94 amended
1 The Producer Price and Milk Cost of Production Order, Manitoba Regulation 77/94, is amended by this regulation.

2 Subsection 4(1) is repealed and the following substituted:

Price of fluid milk sold by producer or board
4(1) Pursuant to subsection 3(3) of the Act, and based on the cost of production formula established in section 2 and the pricing system established in section 3, the price at which milk may be sold by a producer or the board for use as fluid milk for 1 hectolitre of milk testing 3.7034 kilograms of butterfat is $73.94 calculated according to the following component quantities and unit values:

Butterfat 3.7034 kilograms @ $5.3000/kilogram = $19.63
Protein 3.4092 kilograms @ $5.9024/kilogram = 20.12
Other Solids 5.7921 kilograms @ $5.9024/kilogram = 34.19
Total Price $73.94

3 Clause 8(a) is amended by striking out "$69.64" and substituting "$70.24".

4 The Schedule is repealed and the Schedule to this order is substituted.
Coming into force

This order comes into force on February 1, 2003.

January 14, 2003

MANITOBA MILK PRICES REVIEW COMMISSION:

Daryl F. Kraft
Chairperson

Randy Ozunko
Secretary
SCHEDULE

COST OF PRODUCTION FORMULA

Pursuant to subsection 3(2) of *The Milk Prices Review Act*, the Manitoba Milk Prices Review Commission hereby establishes a cost of production formula. It reflects the cost of producing milk for use as fluid milk in Manitoba and includes a reasonable return on investment to the producers of milk. Under this formula, the cost of producing fluid milk is determined by the sum of the various cost categories, the analysis of which follows the formula. Each cost category is reported on the basis of production from a typical dairy farm with a herd size of 59 head and an average productivity of 59 hectolitres of milk per cow, or 3,481 hectolitres of marketable production per farm. Total volume actually marketed through the Manitoba Milk Producer Marketing Board is 57 hectolitres per cow, or 3,363 hectolitres per farm.

<table>
<thead>
<tr>
<th>COST OF PRODUCTION FORMULA</th>
<th>January 9, 2003 costs per hectolitre</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Operating Expenses</td>
<td>$49,469</td>
</tr>
<tr>
<td>2. Feed and Bedding</td>
<td>75,531</td>
</tr>
<tr>
<td>3. Direct Labour</td>
<td>67,595</td>
</tr>
<tr>
<td>4. Management Fee</td>
<td>6,394</td>
</tr>
<tr>
<td>5. Herd Replacement</td>
<td>15,382</td>
</tr>
<tr>
<td>6. Depreciation</td>
<td>12,475</td>
</tr>
<tr>
<td>7. Return on Equity</td>
<td>9,658</td>
</tr>
<tr>
<td>Interest on Debt</td>
<td>6,810</td>
</tr>
<tr>
<td>Sub-Total, On-Farm Costs</td>
<td>$243,314</td>
</tr>
<tr>
<td>Total volume of marketable milk per farm</td>
<td>3,481 hl</td>
</tr>
<tr>
<td>Total on-farm costs, per hectolitre produced</td>
<td>$69.90</td>
</tr>
<tr>
<td>8. Transportation</td>
<td>87,277</td>
</tr>
<tr>
<td>9. &amp; 10. Adjusted Fluid Requirement</td>
<td>1,056</td>
</tr>
<tr>
<td>11. Market Expansion Fee</td>
<td>4,899</td>
</tr>
<tr>
<td>12. Fluid Skim-Off Costs</td>
<td>347</td>
</tr>
<tr>
<td>Sub-total, Off-Farm Costs</td>
<td>$13,579</td>
</tr>
<tr>
<td>Total volume of milk marketed per farm</td>
<td>3,363 hl</td>
</tr>
<tr>
<td>Total off-farm costs, per hectolitre marketed</td>
<td>$4.04</td>
</tr>
<tr>
<td>Total cost of fluid milk production, per hectolitre</td>
<td>$73.94</td>
</tr>
</tbody>
</table>
1. **Operating Expenses**

<table>
<thead>
<tr>
<th></th>
<th>1989 Survey</th>
<th>January 9, 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>$13,250</td>
<td>$19,013</td>
</tr>
<tr>
<td>Fuel and Lubricants</td>
<td>1,431</td>
<td>2,285</td>
</tr>
<tr>
<td>Livestock Supplies and Services</td>
<td>3,119</td>
<td>4,979</td>
</tr>
<tr>
<td>Veterinary and Medicine</td>
<td>2,730</td>
<td>4,424</td>
</tr>
<tr>
<td>Custom Work</td>
<td>2,804</td>
<td>3,995</td>
</tr>
<tr>
<td>Land and Building Taxes</td>
<td>920 (1)</td>
<td>1,289</td>
</tr>
<tr>
<td>Repairs and Maintenance — Buildings</td>
<td>2,360</td>
<td>2,789</td>
</tr>
<tr>
<td>Repairs and Maintenance — Equipment</td>
<td>4,097</td>
<td>6,324</td>
</tr>
<tr>
<td>Repairs and Maintenance — Supplies</td>
<td>994</td>
<td>1,068</td>
</tr>
<tr>
<td>Board Administration</td>
<td>1,511 (2)</td>
<td>3,303</td>
</tr>
<tr>
<td><strong>TOTAL OPERATING EXPENSES</strong></td>
<td><strong>$33,216</strong></td>
<td><strong>$49,469</strong></td>
</tr>
</tbody>
</table>

Sources: Manitoba Milk Producers' Marketing Board, *Cost of Milk Production Study (Provincial Parameters)*, 1989 and 1991


(1) 1991 survey value, to reflect re-assessment of farm properties
(2) 1991 levy rates, applied to 3,481 hectolitres

2. **Feed and Bedding**

<table>
<thead>
<tr>
<th></th>
<th>Quantity Per Cow</th>
<th>Price</th>
<th>Cost Per Cow</th>
<th>BLENDED COST PER FARM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produced Hay</td>
<td>5.48 t</td>
<td>$97.21</td>
<td>$532.71</td>
<td>$31,431 (1)</td>
</tr>
<tr>
<td>Purchased Hay</td>
<td>.49 t</td>
<td>117.19</td>
<td>57.42</td>
<td>3,388</td>
</tr>
<tr>
<td>Produced Straw</td>
<td>.93 t</td>
<td>44.08</td>
<td>40.99</td>
<td>2,419</td>
</tr>
<tr>
<td>Purchased Straw</td>
<td>.07 t</td>
<td>74.87</td>
<td>5.24</td>
<td>309</td>
</tr>
<tr>
<td>Produced Barley</td>
<td>.51 t</td>
<td>152.18</td>
<td>77.61</td>
<td>3,068 (2)</td>
</tr>
<tr>
<td>Purchased Barley</td>
<td>1.81 t</td>
<td>177.18</td>
<td>320.70</td>
<td>12,677 (2)</td>
</tr>
<tr>
<td>35% Supplement</td>
<td>.47 t</td>
<td>428.00</td>
<td>201.16</td>
<td>7,952 (2)</td>
</tr>
<tr>
<td>16% Ration</td>
<td>2.73 t</td>
<td>259.00</td>
<td>707.07</td>
<td>13,767 (3)</td>
</tr>
<tr>
<td>Salt</td>
<td>3.53 kg</td>
<td>.28</td>
<td>.98</td>
<td>39 (2)</td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td>Price</td>
<td>Quantity</td>
<td>Total</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>Minerals</td>
<td>13.00 kg</td>
<td>.86</td>
<td>11.18</td>
<td>443</td>
</tr>
<tr>
<td>Vitamins</td>
<td>.60 kg</td>
<td>1.59</td>
<td>0.95</td>
<td>38</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>81,956.01</td>
</tr>
</tbody>
</table>
(1) An average of 59 cows were on the representative dairy farm.
(2) Sixty-seven percent of the farms mixed their own rations. Therefore the cost for the average farm was the cost per cow times 59 cows multiplied by 67 percent.
(3) Thirty-three percent of the farms purchased pre-mixed rations. Therefore, the cost to the average business was the per cow expenditure times 59 cows multiplied by 33 percent.

The blended cost consists of 67% of the cows fed on ration mixed on the farm, which is made up of barley, 35% supplement, salt, minerals and vitamins: while 33% of the cows received a complete ration (16% Dairy Ration).

Sources:
Feed Quantities — Model ration established by Manitoba Agriculture
Hay Price — export basis, Manitoba, for three month period ending December, 2002
Straw Prices — Survey conducted by Manitoba Agriculture
Barley Price — Adjusted average price received by Manitoba farmers, December, 2002
Commercial Feeds and Supplements — Survey conducted by Manitoba Agriculture
Proportions of purchased hay, barley and straw — Manitoba Milk Producers’ Marketing Board, Cost of Milk Production Study, 1991
Transportation Rates — Survey conducted by Manitoba Agriculture, and Cost of Milk Production Study, 1991

3. **Direct Labour**

<table>
<thead>
<tr>
<th>Labour Type</th>
<th>Hours</th>
<th>Hourly Rate</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family labour</td>
<td>3,540</td>
<td>$15.13/hour</td>
<td>$53,562</td>
</tr>
<tr>
<td>Hired labour</td>
<td>1,180</td>
<td>$11.89/hour</td>
<td>14,033</td>
</tr>
<tr>
<td><strong>Total direct labour</strong></td>
<td><strong>4,720</strong></td>
<td></td>
<td><strong>$67,595</strong></td>
</tr>
</tbody>
</table>

Sources:  
Manitoba Milk Producers’ Marketing Board, Cost of Milk Production Study, 1989  
Petkau, D.R., A Study to Review and Improve the Milk Prices Review Commission's Producer Cost of Production Formula for Fluid Milk, June, 1991  
Statistics Canada, 72-002, Employment, Earnings and Hours, Manitoba Industrial Aggregate Wage — Average Hourly Earnings, including Overtime, August, 2002

4. **Management Fee**

2% of total undepreciated dairy assets, (8319,679) $6,394
including the dairy herd

Source:  
Manitoba Milk Producers’ Marketing Board, Cost of Milk Production Study, 1989
5. **Herd Replacement**

**ANNUAL COST**

Replacement Heifers (31.7% of average herd): $35,055
19 head @ $1,845.00

Less: Sale of Culls (assuming 3 deaths): (11,639)
16 head @ $727.44

Less: Sale of Calves
26 Bull calves @ $53.54 (1,392)
24 heifer calves @ $276.75 (6,642)

Net herd replacement cost per year $15,382

Sources:  Average herd size and replacement rates — Manitoba Milk Producers' Marketing Board, *Cost of Milk Production Study, 1989*
Heifer and Cull Price, base — Manitoba Milk Producers' Marketing Board, *Cost of Milk Production Study, 1991*
Calves, quantity — Manitoba Milk Prices Review Commission
Bull Calf Price, base — Manitoba Milk Producers' Marketing Board, *Cost of Milk Production Study, 1991*
Heifer Calf Price, Base — 15% of replacement heifer cost

6. **Depreciation**

Depreciation allowance for dairy assets (buildings, equipment and vehicles) $293,188 @ 4.26% $12,475

Source:  Manitoba Milk Producers' Marketing Board, *Cost of Milk Production Study, 1989*

7. **Return on Equity/Interest on Debt**

**ANNUAL COST**

Short-Term Debt $ 12,415 @ 6.00% $ 745
Long-Term Debt 75,598 @ 8.02% 6,065
Unfinanced Assets 157,642 @ 6.13% 9,658

Total Return on Assets $16,468
8. Transportation

Annual cost of transporting milk to processing plants
3,363 hl @ $2.16/hl

Source: Manitoba Milk Producers' Marketing Board, Transportation costs,
12-month average to October, 2002

9. Adjusted Fluid Requirement

This factor compensates producers for the value of additional milk required
due to transportation shrinkage, fluid skim-off and shrinkage loss in
processing.

Actual Fluid Sales $67,001,057
Add: Actual skim-off sold as Class 1b, 2 and 4a milk 17,409,487
Add: Actual Plant Loss (Class 4d) 775,859

Class 1 actual value of fluid revenue generated based on annual sales of
106.53 million litres $85,186,403
Less: Class 1 projected Value of Fluid revenue based on COP and
on annual sales of 106.53 million litres (84,607,302)
Less: Butterfat Credit (670,929)
Adjusted Revenue Overage (shortfall) (891,828)
Add: Applicable federal subsidy @ 80.21
per kg of butterfat on Class 4a sales (eliminated) 0

Net Adjusted Revenue, Overage (shortfall) (891,828)
Divided by Total Fluid Sales (1,065,328 hl) 8.0862/hl
Multiplied by Fluid Sales per Farm (3,363 hl) $290
per farm
Sources: Volumes of skim-off and industrial prices — Manitoba Milk Producers' Marketing Board and Manitoba Milk Prices Review Commission
Current Class 1 value — Manitoba Milk Prices Review Commission
Allocation of skim-off to end-product utilization — Manitoba Milk Prices Review Commission survey of fluid milk processors

10. **Metre Shrink**

Transportation Shrinkage (%) .0029

Total fluid milk used for processing x 1,131,922 hl

Transportation Shrinkage 3,282 hl

Total cost of fluid production x $73.94

Transportation Shrinkage (8) $242,706

Divided by Total Fluid Milk Sales $106,532,848

$0.228/hl

Fluid sales per farm x 3,363 hl

Transportation shrinkage per farm $766

Adjusted fluid requirement per farm (add) $290

Total adjusted fluid requirement $1,056

Sources: Volumes of shrinkage and milk processed — Manitoba Milk Producers' Marketing Board and Manitoba Milk Prices Review Commission

11. **Market Expansion Fee**

Annual cost of fluid milk promotion programs $4,899
3,363 hl @ $1.46/hl

Source: Manitoba Milk Producers' Marketing Board
12. **Fluid Skim-Off Costs**

This factor provides for net costs related to handling of butter produced from fluid skim-off. Values on summary page assume all skim-off costs are a cost to fluid sales.

- Manitoba fluid share of Canadian butter production costs 3.49%
- 1996-97 Canadian butter management costs $3,150,126
- Manitoba fluid skim-off share of costs $109,939
- Fluid skim-off costs per hl $0.103
- Fluid skim-off costs per farm, annually $347

Sources: Canadian Dairy Commission, *1996-97 Annual Report*