



# Cost of Producing Milk

per  
**Hundredweight Equivalent**

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Work Sheet:	An Example Farm	Your Farm
1. Total Schedule F Income <small>(Schedule F, line 11)</small>	\$126,161	
2. Form 4797 Income <sup>1</sup>	\$ 12,143	
3. Change <sup>2</sup> in Feed Inventory	-\$ 4,127	
4. Change <sup>2</sup> in Dairy Livestock Inventory	\$ 10,500	
5. Change in Acc. Rec. Other Lst Inv., Etc.	\$0	
6. Total Farm Income <small>(On this worksheet, add lines 1 through 5.)</small>	\$144,677	
7. Average Milk Price <sup>3</sup>	\$ 12.86	
<small>Use \$12.33 when calculating 2000 cost of production.</small>		
8. Hundredweight Equivalents (CWT EQ) of Milk Produced <b>Crucial Value<sup>4</sup></b> <small>(On this worksheet, divide line 6 by line 7)</small>	11,250	
9. Total Schedule F Expenses <small>(Schedule F, line 35)</small>	\$122,521	
10. Change <sup>2</sup> in Accounts Payable	\$ 1,543	
11. Change <sup>2</sup> in Prepaid Expenses	\$ 1,200	
12. Total Allocated Costs <small>(On this worksheet, add lines 9 and 10, then subtract line 11)</small>	\$122,864	
13. Total Interest Paid <small>(Add Schedule F lines 23a and 23b)</small>	\$ 8,470	
14. Wages and Benefits Paid <small>(Only those reported on Schedule F; to obtain this value add Schedule F lines 17, 24, and 25)</small>	\$ 12,682	
15. Depreciation Claimed <small>(Schedule F line 16 minus Depr. claimed on livestock)</small>	\$ 15,346	
16. Total Basic Costs <small>(On this worksheet, line 12 minus lines 13, 14, and 15)</small>	\$ 86,366	
17. Basic Cost per CWT EQ <sup>5</sup> <small>(On this worksheet, line 16 divided by line 8)</small>	\$ 7.68	<small>Goal &lt;= \$8.00</small>
18. Total \$'s available for other costs <sup>6</sup> <small>(On this worksheet, line 6 minus line 16)</small>	\$58,311	
19. Basic Cost Margin per COW <small>(On this worksheet, divide line 18 by average number of cows, both milking and dry, in herd.)</small>	\$1,166	<small>Goal =&gt; \$1,200</small>
20. Total Allocated Costs per CWT EQ <small>(On this worksheet, divide line 12 by line 8)</small>	\$ 10.92	
21. Total \$'s available to cover unallocated costs <sup>7</sup> <small>(On this worksheet, (line 7 minus line 20) times line 8)</small>	\$21,825	
22. Unpaid labor & management charge per CWT EQ <small>(Unpaid labor &amp; management charge divide by line 8) (In this example, the opportunity cost of all family labor &amp; management was set at \$35,000. This minus wages paid to family members of \$12,682 = \$22,318. This divided by line 8 equals \$1.98.)</small>	\$1.98	
23. Total Allocated plus unpaid labor & management <small>(On this worksheet, add lines 20 and 22.)</small>	\$12.90	<small>Goal &lt;= line 7</small>

The footnotes are on the back of this page.

## Footnotes

- <sup>1</sup> When Form 4797 contains only income from the sale of culled raised dairy livestock, enter the income reported. If it contains the sale of purchased dairy livestock and the "one-time" sale of some other asset(s), such as an old plow adjustments must be made.

Note: in the case of the "one-time" sale, that income must be subtracted from the Total Form 4797 income before a value is entered. In the case where purchased breeding livestock are included, enter the net amount. This net will take into account the unrecovered basis that was claimed against this sale.
- <sup>2</sup> Change equals the ending amount minus the beginning amount. The best way to get this value is to ask yourself if there was any change in this item during the year in question. If the answer is "yes" then follow with the question, "how much?" This method avoids having to determine the absolute inventory level at the beginning and end of the year in question.
- <sup>3</sup> If you wish to compare your costs to the costs on other farms, use the U.S. average all milk price for the year in question. It was \$13.68, \$12.24, \$13.09, \$12.80, \$12.97, \$12.74, \$14.88, \$13.34, \$15.43, \$14.37 and \$12.33 (est.) in 1990 - 2000, respectively. Or you can divide your total milk income (before any deductions for hauling, marketing, etc.) by the number of hundredweight of milk you sold during the year to calculate the average milk price on your farm. However, then you can only accurately compare your costs this year to your costs in previous years.
- <sup>4</sup> The Critical Value should be divided into the total cost of an expense item to obtain its Cost of Production per Hundredweight Equivalent (CWT EQ). Example, your purchased feed costs are \$34,871 and you Critical Value is 12,842. Then, your purchased feed costs are \$2.72 ( $34871 / 12842$ ) per CWT EQ. You can then compare your costs to those on the tables.
- <sup>5</sup> The average Basic Cost on selected Wisconsin dairy farms was \$7.54, \$7.68, \$7.11, \$7.41, \$8.55, \$7.86, \$8.23 and \$7.72 in 1992-1999, respectively. Farmers should calculate this value each year to monitor changes in their basic production costs. This value allows farm managers to compare their cost to previous years, other dairy businesses, and the price without regard to herd size, production level, debt position, and percent of total labor paid. See *Managing the Farm* Vol. 28 No. 1&2 for more information.
- <sup>6</sup> The "other" cost items are: Interest (both that actually paid and the opportunity cost interest on your equity in the business), Capital Consumed (reduction in the value of your machinery, equipment, etc. caused by using it and/or by it becoming obsolete), Labor and Management Paid, and the Opportunity Cost of Unpaid Labor and Management. Any return above all these costs is an economic profit.
- <sup>7</sup> Unallocated costs, for most farm managers, are their (and their family's) Labor and Management plus a Return to Equity Capital. However, some farm managers pay their family members (or themselves) some wages and benefits that are deductible on Schedule F. In those cases, this margin will not be as large as when the return to the entire farmer's (and family's) labor, management, and equity capital are imbedded in it.

In the example, the farm's margin available for unallocated costs is \$21,825; this is not the return to the farmer's (and family's) Labor, Management, and Equity Capital. The Return to Labor, Management, and Equity Capital is the amount calculated above plus the Wages and Benefits paid to family members. In the example, if all the Wages and Benefits paid were to family members, the total return to their Labor, Management, and Equity Capital is \$34,507 (\$21,825 plus \$12,682).