

## Organic Dairy Performance USA, 2018

(CA, ID, OR, WA) (IA, MN, WI) (VT and ME)

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Organic dairy farm performance in 2018 was analyzed on 44 farms in the United States (**USA**) in the regions of California, Idaho, Oregon, Washington (**NW**); Iowa, Wisconsin, and Minnesota (**MW**); and Vermont and Maine (**NE**). Six of the farms were Organic Grass Milk farms in Iowa and Vermont. Dairies selected were: 1) considered good examples of organic dairies in their region and 2) willingness to complete the financial analysis and share information for others to learn. This analysis provides average results of the organic dairies broken into the four regions of the United States.

Milk production was similar on average among the groups with 15,217 pounds per cow annually. The average herd size was 189 (**USA**); 317 (**NW**); 144 (**MW**); and 78 (**NE**). The **MW** was just short of double the **NE** and the **NW** over double the **MW** in herd size. Productive Crop Acres per Cow on average was 3.53 (**USA**); 2.35 (**NW**); 4.33 (**MW**); and 3.68 (**NE**).

Milk price received included government dairy program payments. The price averaged \$30.70 (**USA**); \$30.94 (**W**); \$28.30 (**MW**); and \$35.41 (**NE**). The **NE** tended to have the highest percentage of Jersey cows in the herds followed by the **NW** which explains a portion of the milk price difference. The other main explanation is regional pay price differences from the milk buyers. There were only two milk buyers purchasing the milk from the farms studied. The 2018 average milk price was \$2.01 lower than 2017 on the farms studied across the **USA**, but realize the regions and farms studied from 2017 to 2018 differed somewhat.

Cull cow and calf sales were down significantly from 2017 while crop sales and other income were up. On the expense side of the equation, feed, seed and fertilizer expenses saw just under \$100 per cow decrease for each item. These differences are reflective of lower milk prices, tighter cash flows, and seeing a need to reduce spending.

Net cash income on average was \$1,102 (**USA**); \$834 (**NW**); \$1,539 (**MW**); and \$1,137 (**NE**). In 2018, the net cash income was lessened by larger than normal inventory decreases. In 2017 the average inventory change was -\$41 per cow, including depreciation. In 2018 the average inventory change per cow was -\$352 (**USA**); -\$180 (**W**); -\$680 (**MW**); and -\$218 (**NE**). Feed inventory losses were the biggest adjustment for most, followed by depreciation of machinery and buildings.

Worthy of high note—there seemed to be a very high correlation to producers who mentioned a poor crop year and their related profitability. A poor crop year was mentioned so often that, in this author's opinion, changes in feed production and additional feed purchases due to their poor crop year is probably the next biggest item after milk price received for poorer average profit performance in 2018. Thus, in addition to a lower milk price, Mother Nature caused diminished profits to an already stressful year for many dairy producers.

After the inventory change, the average net farm income per cow was \$750 (**USA**); \$654 (**NW**); \$859 (**MW**); and \$919 (**NE**). This is **NOT** a good number to use to compare farms or farm regions as it can be very misleading due to dramatic differences in paid (hired) versus unpaid labor on farms. For instance, the **NW** farms only have 17 hours of unpaid labor per cow. The **MW** had over double and the **NE** five times the hours of unpaid labor. If interest was included as a cash expense, a similar issue would arise where the higher debt farms would have significantly lower net cash incomes than the lower debt farms.

In this study, interest expense was not included as a cash expense. Instead, a 4% equity charge was used across all assets, whether owned or borrowed to better equalize the comparisons of the farms. The average equity charge per cow was \$707 (**USA**); \$524 (**NW**); \$1,037 (**MW**); and \$584 (**NE**). Subtracting this equity charge from the Net Farm Income give an average Return to Labor per cow of \$42 (**USA**); \$130 (**NW**); -\$178 (**MW**); and \$335 (**NE**).

The Return to Labor is still NOT a good number to use for profit comparison, unless the farms being compared are similar in levels of total labor and percentage of paid versus unpaid labor. Therefore, it is best to divide the Return to Labor by the number of unpaid labor hours to give a Labor Earnings per Hour which averaged -\$0.41 (**USA**); \$1.34 (**NW**); -\$3.71 (**MW**); and \$3.78 (**NE**). The Labor Earnings per Hour in 2017 was \$21.54 (**USA**), a very dramatic change.

The Labor Earnings per Hour (for unpaid labor) is one of three measures used to compare profitability. By itself, it can be misleading, especially when a data set is averaged. So, even though the **NE** ranks highest in this profit measure, the **NE** will end up being the least profitable in other measures.

The second profit measure is full cost of production, which includes unpaid labor and equity charges on owned assets. The average cost of milk production in 2017 was \$31.10 (**USA**). For 2018, the average cost of milk production was \$34.19 (**USA**); \$31.91 (**NW**); \$31.98 (**MW**); and \$42.77 **NE**. Previous data from our late friend, Bob Parsons, tended to also show significantly higher production costs in the **NE**.

Labor efficiencies are significantly lower in the **NE**. A higher percentage of Jersey herds would increase both the cost per cwt. eq. as well as the income per cwt. eq. due to the higher component, thus higher value, milk. Having the **NE** in the average USA data set pulls the average cost of production higher as Vermont and Maine were not part of last year's data set. The cost of milk production per cwt. eq. did not change significantly from 2017 to 2018, except changes in feed inventory or feed purchased. It is the income side that was reduced and has seen significant changes.

Labor costs and labor efficiency measures continue to show strong correlation to organic dairy profits. The Return to All Labor per FTE (Full Time Equivalent of 3,000 hours annually) on average was \$26,581 (**USA**); \$43,003 (**NW**); \$19,765 (**MW**); and \$14,939 (**NE**). The average Cows per FTE was 42 (**USA**); 54 (**NW**); 40 (**MW**); and 25 (**NE**). The Cwt. of Milk

Sold per FTE was 6,229 (**USA**); 7,868 (**NW**); 6,149 (**MW**); and 3,727 (**NE**). All Labor Costs per Cow were \$1,184 (**USA**); \$991 (**NW**); \$1,121 (**MW**); and \$1,740 (**NE**). The **NE** needs major low cost facility changes to improve labor efficiency.

Economies of scale are often touted as a major reason for profitability differences. Though not analyzed statistically, there does not seem to be much of a profit difference due to herd size or acreage per cow. The **NW** seems to have a correlation but it is this author's opinion their higher feed purchased cost per cow offsets the acreage differences per cow relative to the **MW**. A question arises in the **NE** with soil quality and forage management as using 3.68 acres per cow and still purchasing \$2,052 of feed on average. The **NE** seems to have both a labor efficiency and feed production efficiency issue, highly affecting their profitability.

Capital (asset) efficiency is highly related to profit as return on assets is often the best profit measure. Stark differences are exhibited here because the **MW** tends to be most heavily invested in both land (acres per cow); machinery (needed for increased acreage) and facilities (needed for both summer heat/humidity and wintry conditions). The Capital Invested per Cow was \$17,753 (**USA**); \$13,110 (**NW**); \$22,857 (**MW**); and \$13,615 (**NE**). Fixed Cost per Cow (The DIRT1 5 of depreciation, interest, repairs, taxes and insurance) was \$1,557 (**USA**); \$1,119 (**NW**); \$1,987 (**MW**); and \$1,316 (**NE**). Fixed Cost as a Percent of Total Cos was 28% (**USA**); 22% (**NW**); 34% (**MW**); and 20% (**NE**). Thus, in all capital efficiency categories, the **MW** is the most challenged.

#### Bottom Line on Profitability

The following equations best depicts profitability:

$$\text{Profit} = (\text{Price} - \text{Cost}) \times \text{Volume} \quad \text{or} \\ \text{ROA} = \text{OPM} \times \text{ATO}$$

Rate of Return on Assets (**ROA**) is the best measure of capital efficiency and also profitability as it marries the Net Worth Statement and the Net Farm Income Statement into a percent return that can be compared to the financial markets. The average **ROA** was 0.91% (**USA**); 3.29% (**NW**); 1.43% (**MW**); and -4.76% (**NE**). Only the **NW** had a respectable **ROA** above the rate of inflation, but still less than desired.

The average Operating Profit Margin (**OPM**) was 4.15% (**USA**); 8.39% (**NW**); 6.56% (**MW**); and -9.80% (**NE**). The 2018 **OPM** was less than 25% of the 2017 **OPM**. For every \$1 of income, the average **USA** dairy only pocketed four cents on the dollar to save or invest, compared to 18 cents last year, a very significant reduction.

The Asset Turnover Ratio (**ATO**) was 33.25% (**USA**); 41.43% (**NW**); 24.57% (**MW**); and 41.54% (**NE**). Again, the **MW** weakness on capital efficiency shows here. A good goal is 33% in the **MW** with the necessary investments of land, cattle, facilities and machinery. In the **NW**, an **ATO** nearing 50% would be a goal, meaning the **NW** farms would gross enough income to pay for all the assets on the farm in two years. The **MW** goal would be three years at 33%.

Multiply the **OPM** times the **ATO** and it equals the **ROA**. Thus, these three ratios truly make up the Profit Equation!

In sum, the lower milk price, coupled with weather issues causing feed losses, in addition to labor efficiencies seemed to be the big impacts on these organic dairy profits in 2018.

#### Grass Milk Farms Fared About the Same in Profitability!

The six Grass Milk (**GM**) farms averaged 79 cows on 3.37 acres per cow so tended to be half the size of the **USA** farms. The **GM** pay price, as expected, averaged \$4.33 higher than the average **USA** pay price. The **GM** farms were split into a Higher Profit (**HP**) group and a Lower Profit (**LP**) group.

Contrary to expectation, unless using higher Jersey percentages, the **HP** group had 734 pounds lower annual milk production per cow on average than the **LP** group (7,907 vs 8,641). Also, the **HP GM** dairies tended to be smaller on average (77 vs 82) contrary to the "bigger is better" mindset, but herd size was pretty similar.

The **HP** dairies had less cash income per cow (\$3,203 vs \$3,513) mostly due to less crop sales but more than made it up with \$897 less cash expenses per cow, excluding interest (\$1,389 vs \$2,286). The average Net Cash Income per cow was \$1,814 for the **HP** and \$1,227 for the **LP GM** dairies. After a 4% equity charge across all assets, the Return to Labor per cow was \$954 for the **HP** and \$236 for the **LP GM** dairies, a very significant difference of \$718 per cow.

Labor Efficiency jumps out again in this study. Number of cows per FTE was 31% higher at 59 for the **HP** and 45 for the **LP GM** dairies. Cwts. of Milk Sold per FTE was 22% higher at 4,644 for the **HP** and 3,807 for the **LP GM** dairies. All Labor Costs per Cow were 25% less at \$661 for the **HP** and \$887 for the **LP GM** dairies. Labor Earnings per Hour was \$23.80 for the **HP** and \$3.45 for the **LP GM** dairies.

Capital efficiency also shows itself to be a significant difference between **HP** and **LP GM** dairies. Fixed Cost per Cow, Capital Invested per Cow, Capital Cost per Cow (depreciation and interest/equity costs) were significantly better on the **HP** versus **LP GM** dairies. Capital efficiency leads to a **ROA** of 5.40% for the **HP** and 0.90% for the **LP GM** dairies. The **ATO** was 19.50% for the **HP** and 16.41% for the **LP GM** dairies. The big difference, though, was the **OPM** at 29.89% for the **HP** and only 5.54% for the **LP GM** dairies.

The profit issues for the **LP GM** dairies are very similar to the profit issues for the **NE**. After the labor efficiency and capital efficiency issues, a closer look shows major feed production and/or feeding efficiency differences. The **LP** farms ran 1.5 times more land per cow and purchased 1.8 times more feed than the **HP** farms. Feed is often 50-60% of the total costs.

The **HP GM** dairies have proven that **GM** can be profitable if:

- 1) Labor efficiency in milk produced per FTE is close to 50% of conventional milk benchmarks.
- 2) Capital efficiency is similar or better than conventional or grazing benchmarks.
- 3) Milk production of 8,000 pounds per cow annually which can be achieved with Jerseys and crossbreds.
- 4) Forage quality and feed production efficiency is well above average for the given locale.

In all respects, the **HP GM** dairies earned decent ratings relative to labor efficiency, capital efficiency, operating profit, asset turnover and thus return on assets. A limited number of the non **GM USA** farms did as well and those that did were mostly in the **NW**. Obviously, 2018 was difficult for dairy producers in general, including organic and **GM** producers. The tables below depict the data on all the 44 organic farms.

Organic Dairies USA 2018	Average - Organic			Average - CA/ID/OR/WA			Average - IA/MN/WI			Average - ME/VT		
	38 Farms	/Cow	USA	13 Farms	/Cow	NW	17 Farms	/Cow	MW	8 Farms	/Cow	NE
Productive Crop Acres Operated	570			632			653			282		
Average Number of Cows	189			317			144			78		
<b>Total Assets on Farm</b>	<b>\$3,331,249</b>			<b>\$4,142,514</b>			<b>\$3,704,129</b>			<b>\$1,132,204</b>		
<b>Milk Price</b>	<b>\$30.70</b>			<b>\$30.94</b>			<b>\$28.30</b>			<b>\$35.41</b>		
Milk Hundred weight Equiv.	32,338	171		50,027	158		28,254	197		12,784	164	
<b>Milk Hundredweights</b>	28,999	153		46,815	148		23,627	164		12,051	155	
Milk Sales	<b>\$864,347</b>	<b>\$4,572</b>		<b>\$1,419,989</b>	<b>\$4,485</b>		<b>\$663,551</b>	<b>\$4,618</b>		<b>\$407,759</b>	<b>\$5,242</b>	
Cull Cow Sales	\$30,197	\$160		\$40,915	\$129		\$32,292	\$225		\$8,548	\$110	
Calf Sales	\$5,490	\$29		\$3,253	\$10		\$9,280	\$65		\$860	\$11	
Crop Sales	\$36,172	\$191		\$8,820	\$28		\$72,798	\$507		\$371	\$5	
Other Income	\$34,105	\$180		\$48,852	\$154		\$34,690	\$241		\$8,190	\$105	
<b>Total Cash Income</b>	<b>\$970,312</b>	<b>\$5,132</b>	<b>/Cwt.Eq.</b>	<b>\$1,521,828</b>	<b>\$4,807</b>	<b>/Cwt.Eq.</b>	<b>\$812,611</b>	<b>\$5,656</b>	<b>/Cwt.Eq.</b>	<b>\$425,728</b>	<b>\$5,473</b>	<b>/Cwt.Eq.</b>
Veterinary, Medicine	\$12,663	\$67	\$0.39	\$17,278	\$55	\$0.35	\$11,389	\$79	\$0.40	\$8,842	\$114	\$0.69
Dairy Supplies	\$34,618	\$183	\$1.07	\$43,459	\$137	\$0.87	\$31,830	\$222	\$1.13	\$26,622	\$342	\$2.08
Breeding Fees	\$8,114	\$43	\$0.25	\$11,219	\$35	\$0.22	\$7,189	\$50	\$0.25	\$5,470	\$70	\$0.43
Feed Purchased	\$283,566	\$1,500	\$8.77	\$623,037	\$1,968	\$12.45	\$90,115	\$627	\$3.19	\$159,655	\$2,052	\$12.49
Repairs	\$52,074	\$275	\$1.61	\$59,452	\$188	\$1.19	\$61,300	\$427	\$2.17	\$19,281	\$248	\$1.51
Seed, Chem, Fert	\$35,299	\$187	\$1.09	\$19,780	\$62	\$0.40	\$61,274	\$426	\$2.17	\$3,863	\$50	\$0.30
Fuel, Gas, and Oil	\$30,985	\$164	\$0.96	\$36,701	\$116	\$0.73	\$33,279	\$232	\$1.18	\$16,674	\$214	\$1.30
Utilities	\$24,070	\$127	\$0.74	\$41,454	\$131	\$0.83	\$17,023	\$118	\$0.60	\$11,211	\$144	\$0.88
Interest Paid -- not included	\$0			\$0			\$0			\$0		
Labor Hired	\$117,070	\$619	\$3.62	\$216,360	\$683	\$4.32	\$85,304	\$594	\$3.02	\$26,502	\$341	\$2.07
Rent, Lease and Hire	\$84,005	\$444	\$2.60	\$89,533	\$283	\$1.79	\$109,376	\$761	\$3.87	\$18,919	\$243	\$1.48
Property Taxes	\$10,935	\$58	\$0.34	\$12,630	\$40	\$0.25	\$12,271	\$85	\$0.43	\$4,747	\$61	\$0.37
Farm Insurance	\$19,769	\$105	\$0.61	\$21,167	\$67	\$0.42	\$23,889	\$166	\$0.85	\$8,786	\$113	\$0.69
Other Cash Expense	\$48,860	\$258	\$1.51	\$65,701	\$208	\$1.31	\$47,220	\$329	\$1.67	\$26,690	\$343	\$2.09
<b>Total Cash Expense</b>	<b>\$762,028</b>	<b>\$4,031</b>	<b>\$23.56</b>	<b>\$1,257,770</b>	<b>\$3,973</b>	<b>\$25.14</b>	<b>\$591,458</b>	<b>\$4,117</b>	<b>\$20.93</b>	<b>\$337,263</b>	<b>\$4,336</b>	<b>\$26.38</b>
<b>Net Cash Income</b>	<b>\$208,286</b>	<b>\$1,102</b>	<b>\$6.44</b>	<b>\$264,058</b>	<b>\$834</b>	<b>\$5.28</b>	<b>\$221,153</b>	<b>\$1,539</b>	<b>\$7.83</b>	<b>\$88,465</b>	<b>\$1,137</b>	<b>\$6.92</b>
Inventory Change	-\$66,583	-\$352	-\$2.06	-\$56,948	-\$180	-\$1.14	-\$97,735	-\$680	-\$3.46	-\$16,986	-\$218	-\$1.33
<b>Net Farm Income</b>	<b>\$141,703</b>	<b>\$750</b>	<b>\$4.38</b>	<b>\$207,110</b>	<b>\$654</b>	<b>\$4.14</b>	<b>\$123,418</b>	<b>\$859</b>	<b>\$4.37</b>	<b>\$71,480</b>	<b>\$919</b>	<b>\$5.59</b>
Equity@	\$133,709	\$707	\$4.13	\$165,847	\$524	\$3.32	\$149,035	\$1,037	\$5.27	\$45,421	\$584	\$3.55
<b>Return to Labor</b>	<b>\$7,994</b>	<b>\$42</b>	<b>\$0.25</b>	<b>\$41,263</b>	<b>\$130</b>	<b>\$0.82</b>	<b>-\$25,617</b>	<b>-\$178</b>	<b>-\$0.91</b>	<b>\$26,058</b>	<b>\$335</b>	<b>\$2.04</b>
Unpaid Labor Cost	\$74,591	\$395	\$2.31	\$67,955	\$215	\$1.36	\$73,125	\$509	\$2.59	\$90,210	\$1,160	\$7.06
Unpaid Labor Hours	5,769	31		5,528	17		5,543	39		6,766	87	
Labor Full Time Equivalent	4.31			5.86			3.75			3.11		
<b>Labor Earnings Per Hour</b>	<b>-\$0.41</b>			<b>\$1.34</b>			<b>-\$3.71</b>			<b>\$3.78</b>		
Gross Income per Cwt. Eq.	\$30.68			\$30.94			\$28.30			\$35.41		
Gross Expense per Cwt. Eq.	\$34.19			\$31.91			\$31.98			\$42.77		
Net Income per cwt.	-\$3.51			-\$0.97			-\$3.68			-\$7.36		
Return to All Labor per FTE Labor.....	\$26,581			\$43,003			\$19,765			\$14,939		
Number of Cows per FTE Labor.....	42			54			40			25		
Cwts. of Milk Sold per FTE Labor.....	6,229			7,868			6,149			3,727		
Pounds of Milk Sold per Cow.....	15,217			15,010			15,853			14,995		
Productive Crop Acres per Cow.....	3.53			2.35			4.33			3.68		
Capital Cost per Cow.....	\$1,074			\$768			\$1,388			\$880		
All Labor Costs per Cow.....	\$1,184			\$991			\$1,121			\$1,740		
Fixed Cost per Cow (DIR II)	\$1,557			\$1,119			\$1,987			\$1,316		
Capital Invested per Cow.....	\$17,753			\$13,110			\$22,857			\$13,615		
Net Farm Income per Crop Acre.....	\$294			\$308			\$276			\$312		
Lbs. Milk Produced per Crop Acre.....	5,507			8,130			3,957			4,856		
Fert/Chem/Seed Cost/Crop Acre.....	<b>\$54</b>			<b>\$27</b>			<b>\$92</b>			<b>\$15</b>		
All Labor as Percent of Total Costs.....	20%			20%			19%			26%		
Fixed Cost as Percent of Total Cost.....	28%			22%			34%			20%		
<b>**Net Farm Income From Operations</b>	<b>\$141,629</b>			<b>\$207,110</b>			<b>\$123,418</b>			<b>\$71,480</b>		
<b>**Rate of Return on Assets.....</b>	<b>0.91%</b>			<b>3.29%</b>			<b>1.43%</b>			<b>-4.76%</b>		
<b>**Operating Profit Margin.....</b>	<b>4.15%</b>			<b>8.39%</b>			<b>6.56%</b>			<b>-9.80%</b>		
<b>**Asset Turnover Ratio.....</b>	<b>33.25%</b>			<b>41.43%</b>			<b>24.57%</b>			<b>41.54%</b>		
<b>Dairy TRANS Performance Rating</b>	<b>30.43%</b>			<b>46.92%</b>			<b>28.00%</b>			<b>7.14%</b>		

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Organic Dairies USA 2018	Average - GRASSMILK			Higher Profit - GrassMilk			Lower Profit - GrassMilk			The Table on previous page depicts Organic Profitability. The table on this page depicts Grass Milk profitability which is also Organic production based.
	6 Farms	/Cow		3 Farms	/Cow		3 Farms	/Cow		
Productive Crop Acres Operated	283			221			345			*Note: The "average" is calculated as the sum of the individual farms for each item, not a previous item's sum divided by another item's sum, which yields slightly different results.  For more information on organic and other farm type profitability visit the ISU Dairy Team at: <a href="http://www.extension.iastate.edu/dairyteam">www.extension.iastate.edu/dairyteam</a>  The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.
Average Number of Cows	79			77			82			
<b>Total Assets on Farm</b>	<b>\$1,585,697</b>	<b>\$20,009</b>		<b>\$1,372,122</b>	<b>\$17,858</b>		<b>\$1,799,273</b>	<b>\$22,032</b>		
<b>Milk Price</b>	<b>\$35.03</b>			<b>\$35.33</b>			<b>\$34.73</b>			
Milk Hundred weight Equiv.	7,751	98		7,005	91		8,497	104		
<b>Milk Hundredweights</b>	6,624	84		6,069	79		7,178	88		
Milk Sales	<b>\$227,753</b>	<b>\$2,874</b>		<b>\$210,596</b>	<b>\$2,741</b>		<b>\$244,910</b>	<b>\$2,999</b>		
Cull Cow Sales	\$15,025	\$190		\$23,622	\$307		\$6,429	\$79		
Calf Sales	\$3,229	\$41		\$3,973	\$52		\$2,485	\$30		
Crop Sales	\$9,742	\$123		\$0	\$0		\$19,483	\$239		
Other Income	\$10,758	\$136		\$7,917	\$103		\$13,598	\$167		
<b>Total Cash Income</b>	<b>\$266,507</b>	<b>\$3,363</b>	<b>/Cwt.Eq.</b>	<b>\$246,107</b>	<b>\$3,203</b>	<b>/Cwt.Eq.</b>	<b>\$286,906</b>	<b>\$3,513</b>	<b>/Cwt.Eq.</b>	
Veterinary, Medicine	\$1,125	\$14	\$0.15	\$1,202	\$16	\$0.17	\$1,048	\$13	\$0.12	
Dairy Supplies	\$17,697	\$223	\$2.28	\$12,789	\$166	\$1.83	\$22,605	\$277	\$2.66	
Breeding Fees	\$2,213	\$28	\$0.29	\$2,494	\$32	\$0.36	\$1,931	\$24	\$0.23	
Feed Purchased	\$19,755	\$249	\$2.55	\$13,520	\$176	\$1.93	\$25,990	\$318	\$3.06	
Repairs	\$21,335	\$269	\$2.75	\$14,334	\$187	\$2.05	\$28,335	\$347	\$3.33	
Seed, Chem, Fert	\$12,389	\$156	\$1.60	\$9,565	\$124	\$1.37	\$15,214	\$186	\$1.79	
Fuel, Gas, and Oil	\$13,057	\$165	\$1.68	\$8,585	\$112	\$1.23	\$17,530	\$215	\$2.06	
Utilities	\$5,829	\$74	\$0.75	\$3,923	\$51	\$0.56	\$7,736	\$95	\$0.91	
Interest Paid -- not included	\$0	\$0	\$0.00	\$0	\$0	\$0.00	\$0	\$0	\$0.00	
Labor Hired	\$2,785	\$35	\$0.36	\$5,337	\$69	\$0.76	\$233	\$3	\$0.03	
Rent, Lease and Hire	\$23,976	\$303	\$3.09	\$12,102	\$158	\$1.73	\$35,849	\$439	\$4.22	
Property Taxes	\$7,151	\$90	\$0.92	\$4,997	\$65	\$0.71	\$9,305	\$114	\$1.10	
Farm Insurance	\$5,492	\$69	\$0.71	\$2,682	\$35	\$0.38	\$8,302	\$102	\$0.98	
Other Cash Expense	\$13,899	\$175	\$1.79	\$15,174	\$197	\$2.17	\$12,625	\$155	\$1.49	
<b>Total Cash Expense</b>	<b>\$146,704</b>	<b>\$1,851</b>	<b>\$18.93</b>	<b>\$106,705</b>	<b>\$1,389</b>	<b>\$15.23</b>	<b>\$186,702</b>	<b>\$2,286</b>	<b>\$21.97</b>	
<b>Net Cash Income</b>	<b>\$119,803</b>	<b>\$1,512</b>	<b>\$15.46</b>	<b>\$139,402</b>	<b>\$1,814</b>	<b>\$19.90</b>	<b>\$100,204</b>	<b>\$1,227</b>	<b>\$11.79</b>	
Inventory Change	-\$9,958	-\$126	-\$1.28	-\$10,726	-\$140	-\$1.53	-\$9,191	-\$113	-\$1.08	
<b>Net Farm Income</b>	<b>\$109,845</b>	<b>\$1,386</b>	<b>\$14.17</b>	<b>\$128,677</b>	<b>\$1,675</b>	<b>\$18.37</b>	<b>\$91,012</b>	<b>\$1,114</b>	<b>\$10.71</b>	
Equity@	\$63,576	\$802	\$8.20	\$55,386	\$721	\$7.91	\$71,767	\$879	\$8.45	
<b>Return to Labor</b>	<b>\$46,268</b>	<b>\$584</b>	<b>\$5.97</b>	<b>\$73,291</b>	<b>\$954</b>	<b>\$10.46</b>	<b>\$19,246</b>	<b>\$236</b>	<b>\$2.27</b>	
Unpaid Labor Cost	\$57,500	\$726	\$7.42	\$40,000	\$521	\$5.71	\$75,000	\$918	\$8.83	
Unpaid Labor Hours	4,458	56		3,250	42		5,667	69		
Labor Full Time Equivalent	1.58			1.26			1.90			
<b>Labor Earnings Per Hour</b>	<b>\$13.63</b>			<b>\$23.80</b>			<b>\$3.45</b>			
Gross Income per Cwt. Eq.	\$35.03			\$35.33			\$34.73			
Gross Expense per Cwt. Eq.	\$36.86			\$32.32			\$41.41			
Net Income per cwt.	-\$1.83			\$3.02			-\$6.68			
Return to All Labor per FTE Labor.....	\$34,039			\$57,637			\$10,440			
Number of Cows per FTE Labor.....	52			59			45			
Cwts. of Milk Sold per FTE Labor.....	4,225			4,644			3,807			
Pounds of Milk Sold per Cow.....	8,274			7,907			8,641			
Productive Crop Acres per Cow.....	3.37			2.70			4.05			
Capital Cost per Cow.....	\$943			\$798			\$1,087			
All Labor Costs per Cow.....	\$774			\$661			\$887			
Fixed Cost per Cow (DIRTI)	\$1,369			\$1,104			\$1,634			
Capital Invested per Cow.....	\$18,290			\$16,280			\$20,300			
Net Farm Income per Crop Acre.....	\$447			\$607			\$287			
Lbs. Milk Produced per Crop Acre.....	2,961			3,608			2,313			
Fert/Chem/Seed Cost/Crop Acre.....	<b>\$47</b>			<b>\$51</b>			<b>\$43</b>			
All Labor as Percent of Total Costs.....	22%			23%			22%			
Fixed Cost as Percent of Total Cost.....	39%			39%			40%			
**Net Farm Income From Operations	\$109,845			\$128,677			\$91,012			
**Rate of Return on Assets.....	<b>3.15%</b>			<b>5.40%</b>			<b>0.90%</b>			
**Operating Profit Margin.....	<b>17.72%</b>			<b>29.89%</b>			<b>5.54%</b>			
**Asset Turnover Ratio.....	<b>17.96%</b>			<b>19.50%</b>			<b>16.41%</b>			
Dairy TRANS Performance Rating	<b>38.67%</b>			<b>57.00%</b>			<b>20.33%</b>			
by Larry Tranel, Dairy Field Specialist, Iowa State University Extension										