

OHIO STATE UNIVERSITY EXTENSION

# 2015 Ohio Farm Business Summary

Dairy Enterprise Analysis Including Benchmark Reports



**THE OHIO STATE  
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COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

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# 2015 Ohio Farm Business Summary

## Dairy Enterprise Analysis

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## 2015 Ohio Dairy Enterprise Analysis Summary

This document contains summary information for 39 dairy farms with 40 dairy enterprises that participated in the 2015 Ohio Farm Business Analysis and Benchmarking Program. These farms provided detailed financial and production information in order to complete a whole farm financial analysis and enterprise analysis for their dairy and crop enterprises.

Data for more than 12,600 cows are included in this year's summary, representing nearly 5% of Ohio's dairy herd. Herd size ranged from 30 to more than 1,200 cows with three herds milking more than 1,000 cows. Thirty-seven of the dairy enterprises were managed conventionally, and three were managed organically. Three of the conventional dairy enterprises utilized robotic milkers.

2015 was a challenging year for many Ohio dairy farmers, and a stark contrast to 2014 which was characterized by strong milk markets and record high prices. Increased milk production stimulated by strong export markets and record-breaking milk prices in 2014 resulted in increased milk production which struggled to find buyers as export demand declined followed by a dramatic decline in milk price.

### Milk Prices

Most Ohio dairy farmers market their milk in Federal Order 33. The Class III milk price averaged \$15.80 per hundredweight (cwt.) for the year (Table 1), \$6.54 per cwt. lower than 2014. The Producer Price Differential (PPD) averaged \$0.44 per cwt. for the year, down from \$0.82 per cwt. the year before, resulting in an average Statistical Uniform Price (SUP) of \$16.24 per cwt. in 2015. The 2015 SUP was \$6.93 per cwt. lower than 2014, a 30% decline from 2014's average of \$23.16 per cwt.

**Table 1:** 2015 Monthly and annual average per cwt. milk prices for Federal Order 33

2015													
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Avg
<b>Class III</b>	16.18	15.46	15.56	15.81	16.19	16.72	16.33	16.27	15.82	15.46	15.30	14.44	15.80
<b>PPD</b>	0.49	0.31	-0.03	-0.11	-0.21	-0.46	-0.17	-0.22	0.95	1.13	1.85	1.69	0.44
<b>SUP</b>	16.67	15.77	15.53	15.70	15.98	16.26	16.16	16.05	16.77	16.59	17.15	16.13	16.24
<b>MPP</b>	8.33568	7.65539	7.52618	7.48212	7.83000	8.15831	7.44659	7.94360	8.94909	9.21504	10.01471	9.099397	8.304676
<b>2 month avg</b>		7.99554		7.50415		7.99500		7.69510		9.08207		9.55705	
				less 7.3% sequestration deduction									
Class III @ 3.5% BF = Class III													
Producer Price Differential = PPD													
Statistical Uniform Price = SUP													
Margin Protection Program = MPP													

The Statistical Uniform price represents the base price every dairy farm selling Grade A non-organic milk in Federal Order 33 would receive plus or minus component, somatic cell, and/or any quality or quantity adjustments. The average milk price received by the 37 conventionally managed dairy enterprises in 2015 was \$18.39 per cwt., ranging from \$13.24 to \$24.63 per cwt. The 3 organically managed herds received an average milk price of \$36.51 per cwt.

### Record Low Net Returns in 2015

2015 net return per cow was extraordinarily low, averaging \$36.42 per cow, before a labor and management charge, for all herds. This average net return is the lowest in 5 years of Ohio data (Table 2).

**Table 2:** Comparison of total cost of production per cwt. and net return per cow, 2011 - 2015

	2011	2012	2013	2014	2015
<b>Average of all herds:</b>					
<b>Total cost per cwt<sup>1</sup></b>	\$20.23	\$18.76	\$19.21	\$20.42	\$18.21
<b>Net return per cow<sup>2</sup></b>	\$317	\$231	\$544	\$1,266	\$36.42
<b>Average of High 20%<sup>3</sup>:</b>					
<b>Total cost per cwt<sup>1</sup></b>	\$16.88	\$15.38	\$16.04	\$18.14	\$15.28
<b>Net return per cow<sup>2</sup></b>	\$1,290	\$1,145	\$1,501	\$1,976	\$905.48

<sup>1</sup>Total cost per cwt. including revenue adjustments (income from cull cows, bull calf and other animal sales) before labor and management charge.

<sup>2</sup>Before a labor and management charge

<sup>3</sup>Farms sorted by net return per cow

We typically see a large range in net return per cow among the farms in the analysis with this year's surpassing \$4,200 per cow (Table 3) ranging from a loss of \$1,983 per cow to a net return of \$2,234 per cow.

If we consider only the 37 conventionally managed herds, the average net return drops to a loss of \$91.92 per cow. Fully half of the conventional herds (19 of 37) experienced a negative net return per cow with 2 additional herds generating less than \$100 per cow. Those conventional herds that generated positive net returns averaged \$450 per cow. The conventional herds that experienced a net return of less than zero experienced an average loss of \$605 per cow.

**Table 3:** Average of all farms, range, and average of the high 20% for selected factors for 40 Ohio dairy enterprises, 2015

	<b>Average of 40 farms</b>	<b>Range</b>	<b>Average of High 20%<sup>1</sup></b>
<b>Number of Cows</b>	323	30 – 1,200+	297
<b>Milk sold per cow</b>	24,569	11,950 – 30,947	26,504
<b>Feed cost per cwt of milk<sup>2</sup></b>	\$11.88	\$ 8.71 – \$19.15	\$10.42
<b>Total cost per cwt<sup>3</sup></b>	\$18.21	\$14.40 – \$26.30	\$15.28
<b>Net return per cow<sup>4</sup></b>	\$36.42	(\$1,983) – \$2,234	\$905.48

<sup>1</sup>Farms sorted by net return per cow, 8 farms.

<sup>2</sup>Includes feed costs for mature cows and raised replacements excluding custom raised heifers if feed is included in the custom raising charge. All raised feed is valued at total cost of production including a labor and management charge.

<sup>3</sup>Total cost per cwt. including revenue adjustments (income from cull cows, bull calf and other animal sales) before a labor and management charge.

<sup>4</sup>Before a labor and management charge.

### **Herd Size**

All herds averaged 323 cows, with herd size ranging from 30 to more than 1,200 cows. While the average numbers for all herds together are interesting, they have limited value when comparing performance of an individual herd with this broad range in herd sizes. To provide meaningful information for herds of different sizes, enterprise summaries per cow and per cwt were generated for herds with 50 to 100 cows, 100 to 200 cows, 200 to 500 cows, and herds with more than 500 cows. Benchmark reports were also generated for different herd sizes for the first time with the 2015 data. Reports are available for herds with 30 to 200 cows, 200 to 500 cows, and 200 to 1,200 cows both per cow and per cwt.

## 2015 – The Year in Review

### Weather - Jim Noel, NOAA/NWS/Ohio River Forecast Center

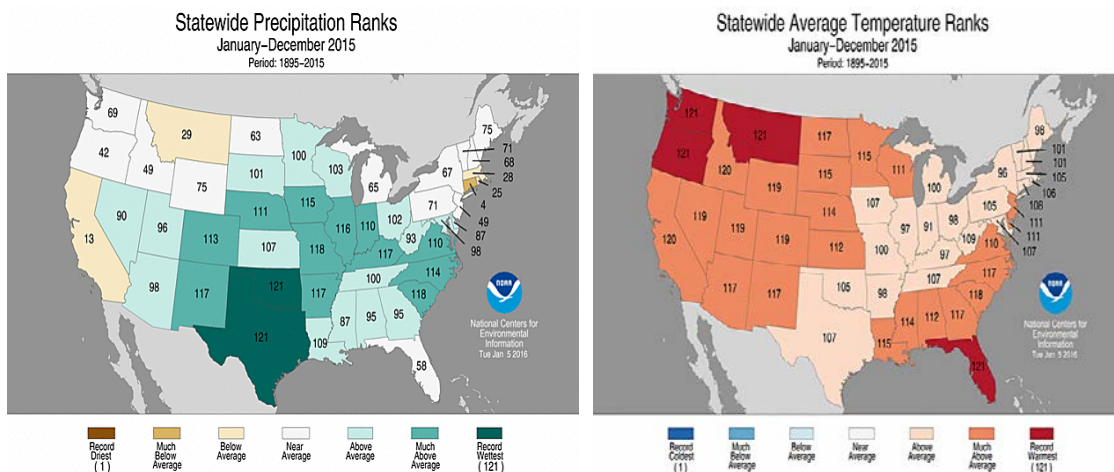
2015 was a wetter and warmer year across Ohio. After a cool 2014 with near normal precipitation, both temperatures and precipitation increased for 2015. It was the 19<sup>th</sup> wettest year on record in 121 years of recordkeeping, and was also the 23<sup>rd</sup> warmest year on record.

By season:

Ohio experienced a colder and drier winter in 2015, with it being the 20<sup>th</sup> coldest and 25<sup>th</sup> driest winter on record. Moving into spring planting season, Ohio saw temperatures slightly warmer than normal with near normal rainfall. Ohio temperatures ranked 33<sup>rd</sup> warmest out of 121 years.

By the summer growing season there were some challenges as maximum temperatures were the 20<sup>th</sup> coolest on record, yet overall temperatures were near normal. With above normal cloud cover and rainfall in summer of 2015, minimum temperatures were the 33<sup>rd</sup> warmest on record. It was the 7<sup>th</sup> wettest summer on record.

Moving into fall harvest season, the weather was marked by the 2<sup>nd</sup> warmest fall on record with near normal rainfall. Even though 2015 was warmer and wetter than normal, there were some extremes within those numbers.



Source: National Climactic Data Center



Each year, no matter the statewide weather conditions, at least one of the farms participating in the analysis experiences local weather conditions that cause a steep decline in crop yields. This may cause farms that are otherwise profitable to experience a year of declines in working capital resulting from a decline in raised feed and crop inventories as well as low profitability resulting from higher feed costs. Lower crop yields increase the crops' cost of production as total costs are divided by lower yields. This situation is then compounded by the need to purchase additional feed to compensate for lower raised feed production.

## 2015 – Ohio Regional Temperature Rankings

Divisional Average Temperature Ranks



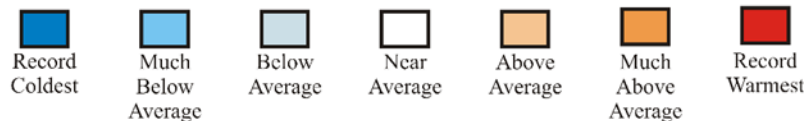
Divisional Maximum Temperature Ranks



Divisional Minimum Temperature Ranks



January - December 2015  
Period: 1895 - 2015



Source: Byrd Polar and Climate Research Center/ Polar Meteorology Group

## Crop Yields and Prices

**Table 4:** Ohio Crop Yields and Marketing Year Prices as reported by the USDA National Agricultural Statistics Service in the Ohio Annual Bulletin (September 2015)

	Corn Yield bu/acre	Corn Price \$/bu <sup>1</sup>	Soybean Yield bu/acre	Soybean Price \$/bu <sup>1</sup>	Wheat Yield bu/acre	Wheat Price \$/bu <sup>1</sup>	Alfalfa Hay tons/ac	Alfalfa Hay \$/ton <sup>1</sup>
2010	160	5.45	48	11.50	61	5.21	3.3	160
2011	153	6.44	48	13.00	57	6.73	3.4	183
2012	120	7.09	45	14.60	68	7.94	2.8	231
2013	174	4.41	49.5	13.00	70	6.54	3.5	194
2014	176	3.78	52.5	10.30	74	5.60	3.5	175
2015	153	3.80	50	8.85	67	4.60	2.9	191

<sup>1</sup>Marketing year average price [https://www.nass.usda.gov/Statistics\\_by\\_Subject/?sector=CROPS](https://www.nass.usda.gov/Statistics_by_Subject/?sector=CROPS)

<sup>2</sup>[http://www.agri.ohio.gov/divs/Communications/docs/ODA\\_Comm\\_AnnRpt\\_2015.pdf](http://www.agri.ohio.gov/divs/Communications/docs/ODA_Comm_AnnRpt_2015.pdf)

## Participating Farms

In 2015, participating dairy farms were located in 15 counties. The majority of farms were located in the northeast part of the state.

**Figure 2:** Locations of the 39 Ohio dairy farm businesses participating in 2015



## Dairy Enterprise Analysis Reports

The Dairy Enterprise Analysis reports show the average physical production, gross margin over purchase costs, direct costs, overhead costs, and net returns on a per cow or per hundredweight (cwt) basis. Information is presented for the average of all farms and the “High 20%” sorted by net return per cow.

*Gross Margin* is the accrual gross value added by the enterprise. It includes income from sale of offspring and livestock products, cull income, non-cash transfers to other enterprises, and the value of production used in the home or for feed. It also includes the value of the livestock inventory change from the beginning to the end of the year. Inventory changes are calculated using the cost-basis balance sheet, and each farm’s per-head values for their breeding livestock inventories are held constant from the beginning through the end of the year. The cost of livestock purchased and the value of any animals transferred in are deducted from gross returns.

*Net Return* is the amount contributed by a unit of the enterprise toward operator labor, management, and equity capital. Any wages and benefits paid to the operator are removed from labor costs (and added to *Labor and Management Charge*) so that all farms are on equal footing.

*Net Return over Labor and Management* is the return remaining after compensating the operator for unpaid labor and management. This is the per-unit return to equity capital.

*Labor and Management* calculation:

Management is calculated at 5% of the Value of Farm Production (VFP)

Labor is valued at \$13.50 per hour for 3,000 hours annually (one operator)

The Value of Farm Production is the farm’s total income less the cost of purchased feed.

Example:	Management at 5% * \$950,000 VFP	= \$47,500
	Labor of 3,000 hrs * \$13.50	<u>= \$40,500</u>
		\$88,000

*Cost of Production* shows the average cost per unit in each cost category. *Total direct and overhead expense per unit* is the breakeven price needed to cover cash costs and depreciation.

*With Other Revenue Adjustments* is the breakeven price adjusted for cull sales, other offspring sales, the cost of replacement stock, and any other miscellaneous income. This assumes that some costs can be covered by these other income sources.

*With Labor and Management* is the final breakeven price to provide a labor and management return for the operator(s).

*Other Information* contains both economic and technical efficiency measures for the enterprise. Rounding of individual items for the report may cause minor discrepancies with the calculated total

# Benchmark Reports

Benchmark reports follow each enterprise summary, both per cow, and per cwt. These reports include information on 36 income, expense, and efficiency measures from the dairy enterprise analyses.

Benchmark reports allow farms to compare their performance against other Ohio farms. Farms that complete an analysis receive benchmark reports personalized for their farm. These reports include their farm's dairy enterprise numbers in a "My Farm" column next to the Group Median column, and the corresponding percentiles are highlighted for each of the 36 items. Managers can quickly see where they are doing well and where they have opportunities for improvement.

The Benchmark reports are generated using the RankEm<sup>®</sup> software from the University of Minnesota's Center for Farm Financial Management. Benchmark reports include the median value (half of the data points were higher, half of the data points were lower – which will frequently be at least slightly different from the average) for each of the 36 income, expense and efficiency measures. For each measure, the corresponding data is sorted from lowest to highest. Then the median value of for each 10% grouping of the data set is sorted into the 10%, 20%, 30%...100% columns of the table.

Each line is calculated separately. In other words, the 10% column does not represent the bottom 10% of all farms, nor does the 100<sup>th</sup> percentile group include only the top performing farms. An individual farm may be in the 80<sup>th</sup> percentile for Gross Return, but in the 30<sup>th</sup> percentile for feed cost. Typically, a farm's values will be scattered in multiple percentile groups (columns) across the chart.

**Hired Labor:** Hired labor is listed on line 12 (the first line of overhead expenses). Ohio treats hired labor as a direct expense to the dairy enterprise; Minnesota treats it as an overhead expense. While it is listed in these benchmark reports after total direct expenses, it is included in the direct expense total.

**Utilities:** Utilities are listed on line 15 of the benchmark reports. Ohio treats utilities as a direct expense to the dairy enterprise; Minnesota treats it as an overhead expense. While it is listed in these benchmark reports after total direct expenses, utilities are included in the direct expense total.

**Machinery Leases:** Not enough farms had machinery leases to include data on these benchmark reports.

**Building Leases:** Not enough farms had building leases to include data on benchmark reports.

**Corn, Corn Silage, and Alfalfa Fed:** These numbers do not reflect all of the corn, corn silage, or alfalfa fed on the farms in the analysis. It would include all of the corn, corn silage or alfalfa raised on a farm which was fed in 2015. Purchased corn, corn silage, or alfalfa is often included as a purchased feed cost on some farms.

**Livestock Enterprise Analysis  
(Farms Sorted By Net Return)**

**Dairy -- Average Per Cow**

	<u>Avg. Of All Farms</u>		<u>High 20%</u>	
	39		8	
	Quantity	Value	Quantity	Value
Number of farms				
Milk sold (hd)	24,541.4	4,506.19	26,467.4	4,947.85
Dairy Calves sold (hd)	0.4	184.57	0.5	184.44
Transferred out (hd)	0.0	0.10	-	-
Cull sales (hd)	0.4	516.86	0.3	363.81
Other income		22.84		10.64
Purchased (hd)	0.0	-59.53	0.0	-16.10
Transferred in (hd)	0.0	-0.28	-	-
Inventory change (hd)	0.1	128.73	0.1	181.35
Gross margin		5,300.20		5,675.80
<b>Direct Expenses</b>				
Protein Vit Minerals (lb.)	165.1	1,582.15	-	1,675.13
Corn (bu.)	35.4	203.11	12.7	88.38
Corn Silage (lb.)	24,171.2	545.88	19,392.2	472.50
Hay, Alfalfa (lb.)	2,865.1	157.46	756.6	80.63
Haylage, Grass (lb.)	1,961.6	67.25	3,859.7	172.64
Rye Silage (lb.)	2,696.7	113.46	873.5	77.53
Other feed stuffs (lb)	4,564.3	249.74	3,300.6	195.68
Breeding fees		100.36		81.14
Veterinary		152.42		130.21
Supplies		226.33		163.59
Contract production exp.		49.32		59.52
Fuel & oil		62.54		59.72
Repairs		117.28		62.80
Custom hire		168.73		45.35
Hired labor		598.81		553.23
Utilities		118.42		134.59
Hauling and trucking		127.05		121.61
Marketing		71.69		73.40
Bedding		104.33		105.21
Total direct expenses		4,816.34		4,352.87
Return over direct expense		483.86		1,322.93
<b>Overhead Expenses</b>				
Interest		93.64		64.60
Mach & bldg depreciation		226.29		253.04
Miscellaneous		127.51		99.80
Total overhead expenses		447.44		417.45
Total dir & ovhd expenses		5,263.78		4,770.32
Net return		36.42		905.48
Labor & management charge		246.21		245.72
Net return over lbr & mgt		-209.79		659.76
<b>Cost of Production Per Cwt. Of Milk</b>				
Total direct expense per unit		19.60		16.42
Total dir & ovhd expense per unit		21.42		18.00
With other revenue adjustments		18.21		15.28
With labor and management		19.21		16.21
Est. labor hours per unit		53.97		36.97
<b>Other Information</b>				
Number of cows		323.1		297.4
Milk produced per cow		24,569		26,504
Total milk sold		7,929,403		7,870,743
Lb. of milk sold per FTE		1,273,220		2,004,675
Culling percentage		38.0		28.5
Turnover rate		41.4		29.9
Cow death loss percent		3.3		1.3
Percent of barn capacity		104.1		82.0
Feed cost per day		8.00		7.57
Feed cost per cwt. of milk		11.88		10.42
Feed cost per cow		2,919.05		2,762.48
Avg. milk price per cwt.		18.36		18.69
Milk price / feed margin		6.48		8.27

**Dairy Per Cow; 2015**

Benchmark Report, 40 Farms

	<b>Group Median</b>	<b>Count</b>	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>	<b>60%</b>	<b>70%</b>	<b>80%</b>	<b>90%</b>	<b>100%</b>
Milk sales	4,206.14	40	3,084.72	3,569.81	3,719.44	3,895.95	4,139.27	4,365.38	4,482.67	4,649.25	5,136.67	6,245.53
Gross Margin	4,989.90	40	3,652.10	4,083.47	4,311.52	4,414.34	4,840.51	5,074.98	5,252.47	5,567.18	5,920.08	7,187.65
Total feed expense	2,775.76	40	3,841.23	3,456.46	3,154.09	2,968.70	2,821.56	2,711.46	2,631.33	2,532.08	2,338.56	2,121.69
Breeding Fees	84.18	39	151.08	123.99	110.07	98.69	88.46	83.46	67.16	52.50	38.24	29.86
Veterinary	116.95	40	274.30	204.75	164.82	156.03	122.91	104.09	94.75	83.94	62.69	36.49
Livestock supplies	138.30	40	336.08	232.66	176.30	161.25	144.61	131.10	111.69	104.10	88.62	60.69
Fuel & Oil	62.32	40	110.92	94.31	84.75	72.47	65.34	60.30	52.56	45.74	34.64	21.08
Marketing	58.02	40	152.52	77.82	69.51	65.21	62.03	54.29	51.14	48.46	40.36	16.02
Operating interest	7.17	32	61.27	25.26	18.15	10.10	8.86	5.75	3.30	2.73	1.46	1.03
Total direct expenses	4,555.93	40	5,941.18	5,385.32	4,990.03	4,845.05	4,683.72	4,447.09	4,190.38	3,930.42	3,681.58	3,263.22
Return over direct expenses	451.16	40	-697.29	-337.96	-60.08	180.02	412.63	524.99	696.54	971.68	1,104.08	1,831.77
Hired labor <sup>1</sup>	474.42	35	855.36	745.67	656.29	596.19	546.68	402.15	345.33	233.44	130.47	48.24
Machinery leases	0.00	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building leases	0.00	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	22.61	32	58.49	47.50	38.07	33.10	24.84	20.07	14.19	11.59	9.01	6.89
Farm insurance	40.62	39	128.14	78.95	59.99	51.20	44.36	33.63	30.34	25.88	17.01	11.49
Utilities <sup>1</sup>	114.2	37	183.88	165.10	153.48	140.19	119.70	108.70	104.50	99.53	89.93	65.67
Interest on interm. Debt	15.04	29	72.18	51.68	38.79	21.14	17.68	12.43	9.32	7.02	6.11	4.29
Interest on long term debt	95.99	30	170.75	148.51	116.59	113.63	99.72	83.59	65.79	46.94	34.02	15.17
Machinery depreciation	51.98	40	230.42	129.45	96.83	72.72	57.87	47.40	40.06	31.90	25.86	11.31
Building depreciation	75.67	38	321.33	196.91	151.24	107.59	83.83	60.00	50.33	39.84	24.56	4.88
Total overhead expenses	396.41	40	890.86	486.45	471.71	438.02	414.81	373.59	304.05	288.35	229.54	148.45
Total dir & ovhd expense	4,956.82	40	6,848.71	5,848.53	5,384.61	5,207.70	5,041.35	4,918.00	4,549.58	4,296.19	4,014.29	3,470.81
Net return	42.79	40	-1,391.66	-664.82	-513.13	-254.51	-40.90	181.62	293.56	564.42	788.29	1,683.32
Net return over lbr & mgt	-260.80	40	-1,856.38	-1,018.79	-725.94	-473.42	-326.46	-180.06	-28.72	190.28	387.83	1,253.36
Cost of production	19.65	40	29.77	25.18	23.38	21.78	21.33	19.22	18.79	17.67	17.07	16.49
Corn Fed (Bu.)	43.69	29	165.02	113.14	73.37	65.31	52.75	43.50	33.54	23.12	14.43	1.73
Corn Silage Fed (Ton)	12.43	33	18.11	15.66	15.41	14.51	12.77	12.27	12.00	9.64	9.16	8.32
Hay, Alfalfa Fed (Ton)	2.57	21	6.90	4.87	4.13	3.27	2.86	2.42	1.96	1.26	1.09	0.15
Avg. number of head	226.5	40	43.0	68.0	118.0	143.5	189.5	253.5	322.5	389.0	581.5	1,045.0
Milk produced per head	21,858	40	14,947	18,874	19,622	20,517	21,752	22,160	24,716	25,949	27,081	29,076
Culling percentage	32.3	40	13.2	21.2	23.1	28.5	30.6	33.9	38.6	41.0	42.5	60.2
Turnover rate	37.3	40	14.6	22.1	29.6	32.9	35.1	39.5	42.6	48.8	56.5	71.3
Percent of barn capacity	100.9	40	66.9	85.4	90.1	97.0	100.0	105.0	111.2	117.1	128.4	155.1
Feed cost per cwt of milk	12.24	40	18.52	15.70	14.48	13.48	12.44	12.20	11.57	11.42	10.49	9.58
Feed cost per head	2,775.76	40	3,841.23	3,456.46	3,154.09	2,968.70	2,821.56	2,711.46	2,631.33	2,532.08	2,338.56	2,121.69
Avg. milk price per cwt.	18.03	40	16.10	17.09	17.47	17.59	17.93	18.19	18.31	19.63	22.02	35.71

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary

**Livestock Enterprise Analysis  
(Farms Sorted By Net Return)**

**Dairy -- Average Per Cwt. Of Milk**

	<u>Avg. Of All Farms</u>		<u>High 20%</u>	
	39		8	
	Quantity	Value	Quantity	Value
Number of farms				
Milk sold (hd)	99.89	18.34	99.86	18.67
Dairy Calves sold (hd)	0.00	0.75	0.00	0.70
Transferred out (hd)	0.00	0.00	-	-
Cull sales (hd)	0.00	2.10	0.00	1.37
Other income		0.09		0.04
Purchased (hd)	0.00	-0.24	0.00	-0.06
Transferred in (hd)	0.00	0.00	-	-
Inventory change (hd)	0.00	0.52	0.00	0.68
Gross margin		21.57		21.41
<b>Direct Expenses</b>				
Protein Vit Minerals (lb.)	0.67	6.44	-	6.32
Corn (bu.)	0.14	0.83	0.05	0.33
Corn Silage (lb.)	98.38	2.22	73.17	1.78
Hay, Alfalfa (lb.)	11.66	0.64	2.85	0.30
Haylage, Grass (lb.)	7.98	0.27	14.56	0.65
Rye Silage (lb.)	10.98	0.46	3.30	0.29
Other feed stuffs (lb)	18.58	1.02	12.45	0.74
Breeding fees		0.41		0.31
Veterinary		0.62		0.49
Supplies		0.92		0.62
Contract production exp.		0.20		0.22
Fuel & oil		0.25		0.23
Repairs		0.48		0.24
Custom hire		0.69		0.17
Hired labor		2.44		2.09
Utilities		0.48		0.51
Hauling and trucking		0.52		0.46
Marketing		0.29		0.28
Bedding		0.42		0.40
Total direct expenses		19.60		16.42
Return over direct expense		1.97		4.99
<b>Overhead Expenses</b>				
Interest		0.38		0.24
Mach & bldg depreciation		0.92		0.95
Miscellaneous		0.52		0.38
Total overhead expenses		1.82		1.58
Total dir & ovhd expenses		21.42		18.00
Net return		0.15		3.42
Labor & management charge		1.00		0.93
Net return over lbr & mgt		-0.85		2.49
<b>Cost of Production Per Cwt. Of Milk</b>				
Total direct expense per unit		19.60		16.42
Total dir & ovhd expense per unit		21.42		18.00
With other revenue adjustments		18.21		15.28
With labor and management		19.21		16.21
Est. labor hours per unit		0.22		0.14
<b>Other Information</b>				
Number of cows		323.1		297.4
Milk produced per cow		24,569		26,504
Total milk sold		7,929,403		7,870,743
Lb. of milk sold per FTE		1,273,220		2,004,675
Culling percentage		38.0		28.5
Turnover rate		41.4		29.9
Cow death loss percent		3.3		1.3
Percent of barn capacity		104.1		82.0
Feed cost per day		8.00		7.57
Feed cost per cwt. of milk		11.88		10.42
Feed cost per cow		2,919.05		2,762.48
Avg. milk price per cwt.		18.36		18.69
Milk price / feed margin		6.48		8.27

# Dairy Per Cwt. Of Milk; 2015

RankEm

Benchmark Report, 40 Farms

	Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Milk sales	17.99	40	15.94	17.09	17.47	17.59	17.85	18.13	18.30	19.53	22.02	35.37
Gross Margin	21.24	40	18.30	19.84	20.23	20.54	21.10	21.41	21.59	22.86	25.85	38.47
Total feed expense	12.24	40	18.52	15.70	14.48	13.48	12.44	12.20	11.57	11.42	10.49	9.58
Breeding Fees	0.35	39	0.75	0.54	0.46	0.42	0.38	0.34	0.31	0.26	0.19	0.14
Veterinary	0.53	40	1.17	0.90	0.70	0.64	0.54	0.49	0.42	0.36	0.32	0.23
Livestock supplies	0.66	40	1.55	1.32	0.77	0.72	0.68	0.61	0.53	0.45	0.37	0.25
Fuel & Oil	0.27	40	0.72	0.42	0.38	0.33	0.28	0.26	0.22	0.19	0.16	0.11
Marketing	0.25	40	0.79	0.33	0.29	0.27	0.26	0.25	0.24	0.21	0.20	0.08
Operating interest	0.03	32	0.31	0.12	0.08	0.05	0.03	0.02	0.02	0.01	0.01	0.00
Total direct expenses	20.13	40	26.77	23.71	23.15	21.96	20.54	19.79	18.46	17.84	16.94	15.95
Return over direct expenses	2.18	40	-3.29	-1.58	-0.33	0.64	2.08	2.31	3.21	4.40	4.89	11.88
Hired labor <sup>1</sup>	2.00	35	3.67	3.30	2.79	2.48	2.20	1.80	1.39	0.985	0.39	0.00
Machinery leases	0.00	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building leases	0.00	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	0.09	32	0.26	0.19	0.17	0.13	0.12	0.08	0.07	0.05	0.04	0.02
Farm insurance	0.16	39	0.66	0.37	0.28	0.23	0.17	0.16	0.14	0.12	0.09	0.05
Utilities <sup>1</sup>	0.55	37	0.94	0.77	0.68	0.63	0.59	0.50	0.43	0.40	0.38	0.33
Interest on interm. Debt	0.06	29	0.34	0.25	0.18	0.10	0.08	0.06	0.04	0.03	0.02	0.02
Interest on long term debt	0.41	30	0.74	0.62	0.56	0.47	0.44	0.34	0.24	0.20	0.15	0.08
Machinery depreciation	0.24	40	1.14	0.57	0.44	0.29	0.24	0.23	0.18	0.15	0.12	0.06
Building depreciation	0.34	38	1.49	0.78	0.65	0.43	0.36	0.32	0.25	0.18	0.12	0.02
Total overhead expenses	1.61	40	3.34	2.32	1.96	1.82	1.67	1.54	1.46	1.31	1.15	0.89
Total dir & ovhd expense	22.17	40	28.40	27.04	24.45	23.47	22.72	21.57	20.29	19.48	18.43	17.76
Net return	0.17	40	-6.40	-3.11	-2.07	-1.14	-0.17	0.70	1.34	2.40	3.29	10.88
Net return over lbr & mgt	-1.21	40	-7.63	-4.38	-3.16	-2.03	-1.58	-0.95	-0.11	0.92	1.66	6.25
Cost of production	19.65	40	29.77	25.18	23.38	21.78	21.33	19.22	18.79	17.67	17.07	16.49
Corn Fed (Bu.)	0.21	29	0.71	0.53	0.37	0.30	0.24	0.20	0.15	0.09	0.07	0.01
Corn Silage Fed (Ton)	0.06	33	0.10	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04
Hay, Alfalfa Fed (Ton)	0.01	21	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Avg. number of head	226.5	40	43.0	68.0	118.0	143.5	189.5	253.5	322.5	389.0	581.5	1,045.0
Milk produced per head	21,858	40	14,947	18,874	19,622	20,517	21,752	22,160	24,716	25,949	27,081	29,076
Culling percentage	32.3	40	13.2	21.2	23.1	28.5	30.6	33.9	38.6	41.0	42.5	60.2
Turnover rate	37.3	40	14.6	22.1	29.6	32.9	35.1	39.5	42.6	48.8	56.5	71.3
Percent of barn capacity	100.9	40	66.9	85.4	90.1	97.0	100.0	105.0	111.2	117.1	128.4	155.1
Feed cost per cwt of milk	12.24	40	18.52	15.70	14.48	13.48	12.44	12.20	11.57	11.42	10.49	9.58
Feed cost per head	2,775.76	40	3,841.23	3,456.46	3,154.09	2,968.70	2,821.56	2,711.46	2,631.33	2,532.08	2,338.56	2,121.69
Hired labor per cow	522.61	37	855.36	745.67	656.29	596.19	546.68	402.15	345.33	233.44	130.47	48.24
Avg. milk price per cwt.	18.03	40	16.10	17.09	17.47	17.59	17.93	18.19	18.31	19.63	22.02	35.71

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio summary



**Livestock Enterprise Analysis  
(Farms Sorted By Net Return)**

**Dairy -- Average Per Cow**

	<u>Low 20%</u>		<u>20 - 40%</u>		<u>40 - 60%</u>		<u>60 - 80%</u>		<u>High 20%</u>	
Number of farms	7		8		8		8		8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	23,933.0	3,979.53	24,067.2	4,266.35	24,249.8	4,410.86	23,925.6	4,835.06	26,467.4	4,947.85
Dairy Calves sold (hd)	0.4	184.00	0.5	243.14	0.4	150.28	0.2	204.15	0.5	184.44
Transferred out (hd)	0.0	0.70	-	-	0.1	-	-	-	-	-
Cull sales (hd)	0.4	487.23	0.3	365.31	0.4	472.62	0.5	922.96	0.3	363.81
Other income		12.12		27.97		10.08		65.62		10.64
Purchased (hd)	0.2	-404.05	-	-	0.0	-1.47	0.0	-5.41	0.0	-16.10
Transferred in (hd)	0.0	-2.04	-	-	-	-	-	-	-	-
Inventory change (hd)	0.2	421.05	0.0	-13.66	0.1	116.49	-0.1	-9.86	0.1	181.35
Gross margin		4,678.53		4,889.12		5,158.86		6,012.52		5,675.80
<b>Direct Expenses</b>										
Protein Vit Minerals (lb.)	-	1,767.23	-	1,960.46	469.9	1,118.00	-	1,947.80	-	1,675.13
Corn (bu.)	45.3	256.40	47.0	237.81	39.4	230.14	34.5	201.65	12.7	88.38
Corn Silage (lb.)	30,128.2	546.67	17,890.2	352.91	26,543.6	609.03	25,274.0	661.89	19,392.2	472.50
Hay, Alfalfa (lb.)	547.5	30.20	4,807.0	258.05	2,568.3	150.70	5,888.4	267.45	756.6	80.63
Hay, Grass (lb.)	2,013.0	103.03	561.3	61.69	3,397.5	126.42	217.1	8.37	194.0	10.65
Haylage, Grass (lb.)	7,401.4	196.50	312.1	9.68	429.2	14.46	158.8	7.87	3,859.7	172.64
Rye Silage (lb.)	1,608.4	90.26	1,832.6	48.22	5,263.1	200.92	1,093.5	50.19	873.5	77.53
Other feed stuffs (lb)	1,571.3	114.97	1,459.3	50.18	3,728.7	251.09	3,494.9	185.19	3,106.6	185.02
Breeding fees		100.40		74.60		124.49		94.55		81.14
Veterinary		192.84		162.05		123.39		195.01		130.21
Supplies		381.79		304.57		249.15		329.91		231.47
Contract production exp.		103.49		77.34		29.59		11.89		59.52
Fuel & oil		72.09		62.13		49.29		85.11		59.72
Repairs		163.67		201.45		113.86		136.56		68.32
Custom hire		91.74		82.46		213.29		345.81		45.35
Hired labor		594.32		585.67		698.80		461.89		553.23
Utilities		121.66		105.07		116.26		114.17		134.59
Hauling and trucking		163.09		165.34		97.51		131.59		121.61
Bedding		106.98		103.45		116.29		78.05		105.21
Total direct expenses		5,197.32		4,903.10		4,632.68		5,314.96		4,352.87
Return over direct expense		-518.78		-13.99		526.19		697.57		1,322.93
<b>Overhead Expenses</b>										
Interest		114.97		97.04		107.76		77.13		64.60
Mach & bldg depreciation		349.60		196.52		221.34		136.71		253.04
Miscellaneous		130.72		121.19		154.00		107.07		99.80
Total overhead expenses		595.29		414.75		483.11		320.91		417.45
Total dir & ovhd expenses		5,792.60		5,317.85		5,115.78		5,635.87		4,770.32
Net return		-1,114.07		-428.74		43.08		376.65		905.48
Labor & management charge		312.33		233.15		169.85		359.71		245.72
Net return over lbr & mgt		-1,426.40		-661.89		-126.77		16.94		659.76
<b>Cost of Production Per Cwt. Of Milk</b>										
Total direct expense per unit		21.71		20.28		19.10		22.20		16.42
Total dir & ovhd expense per unit		24.20		21.99		21.10		23.54		18.00
With other revenue adjustments		21.28		19.49		18.01		18.63		15.28
With labor and management		22.58		20.46		18.71		20.13		16.21
Est. labor hours per unit		76.54		55.36		53.58		54.35		36.97
<b>Other Information</b>										
Number of cows		245.1		234.5		553.3		275.5		297.4
Milk produced per cow		23,936		24,183		24,251		23,943		26,504
Total milk sold		5,866,993		5,643,765		13,416,208		6,591,505		7,870,743
Lb. of milk sold per FTE		875,496		1,217,212		1,267,307		1,232,565		2,004,675
Culling percentage		39.6		29.6		40.6		49.2		28.5
Turnover rate		45.4		32.9		44.7		51.0		29.9
Cow death loss percent		5.8		3.3		4.2		1.6		1.3
Percent of barn capacity		100.9		107.7		114.2		116.7		82.0
Feed cost per day		8.51		8.16		7.40		9.12		7.57
Feed cost per cwt. of milk		12.97		12.32		11.14		13.91		10.42
Feed cost per cow		3,105.26		2,978.99		2,700.76		3,330.41		2,762.48
Avg. milk price per cwt.		16.63		17.73		18.19		20.21		18.69
Milk price / feed margin		3.65		5.41		7.05		6.30		8.27

**Livestock Enterprise Analysis  
(Farms Sorted By Net Return)**

**Dairy -- Average Per Cwt. Of Milk**

	<u>Low 20%</u>		<u>20 - 40%</u>		<u>40 - 60%</u>		<u>60 - 80%</u>		<u>High 20%</u>	
	7		8		8		8		8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms										
Milk sold (hd)	99.99	16.63	99.52	17.64	100.00	18.19	99.93	20.19	99.86	18.67
Dairy Calves sold (hd)	0.00	0.77	0.00	1.01	0.00	0.62	0.00	0.85	0.00	0.70
Transferred out (hd)	0.00	0.00	-	-	0.00	-	-	-	-	-
Cull sales (hd)	0.00	2.04	0.00	1.51	0.00	1.95	0.00	3.85	0.00	1.37
Other income		0.05		0.12		0.04		0.27		0.04
Purchased (hd)	0.00	-1.69	-	-	0.00	-0.01	0.00	-0.02	0.00	-0.06
Transferred in (hd)	0.00	-0.01	-	-	-	-	-	-	-	-
Inventory change (hd)	0.00	1.76	0.00	-0.06	0.00	0.48	0.00	-0.04	0.00	0.68
Gross margin		19.55		20.22		21.27		25.11		21.41
<b>Direct Expenses</b>										
Protein Vit Minerals (lb.)	-	7.38	-	8.11	1.94	4.61	-	8.14	-	6.32
Corn (bu.)	0.19	1.07	0.19	0.98	0.16	0.95	0.14	0.84	0.05	0.33
Corn Silage (lb.)	125.87	2.28	73.98	1.46	109.46	2.51	105.56	2.76	73.17	1.78
Hay, Alfalfa (lb.)	2.29	0.13	19.88	1.07	10.59	0.62	24.59	1.12	2.85	0.30
Hay, Grass (lb.)	8.41	0.43	2.32	0.26	14.01	0.52	0.91	0.03	0.73	0.04
Haylage, Grass (lb.)	30.92	0.82	1.29	0.04	1.77	0.06	0.66	0.03	14.56	0.65
Rye Silage (lb.)	6.72	0.38	7.58	0.20	21.70	0.83	4.57	0.21	3.30	0.29
Other feed stuffs (lb)	6.56	0.48	6.03	0.21	15.38	1.04	14.60	0.77	11.72	0.70
Breeding fees		0.42		0.31		0.51		0.39		0.31
Veterinary		0.81		0.67		0.51		0.81		0.49
Supplies		1.60		1.26		1.03		1.38		0.87
Contract production exp.		0.43		0.32		0.12		0.05		0.22
Fuel & oil		0.30		0.26		0.20		0.36		0.23
Repairs		0.68		0.83		0.47		0.57		0.26
Custom hire		0.38		0.34		0.88		1.44		0.17
Hired labor		2.48		2.42		2.88		1.93		2.09
Utilities		0.51		0.43		0.48		0.48		0.51
Hauling and trucking		0.68		0.68		0.40		0.55		0.46
Bedding		0.45		0.43		0.48		0.33		0.40
Total direct expenses		21.71		20.28		19.10		22.20		16.42
Return over direct expense		-2.17		-0.06		2.17		2.91		4.99
<b>Overhead Expenses</b>										
Interest		0.48		0.40		0.44		0.32		0.24
Mach & bldg depreciation		1.46		0.81		0.91		0.57		0.95
Miscellaneous		0.55		0.50		0.64		0.45		0.38
Total overhead expenses		2.49		1.72		1.99		1.34		1.58
Total dir & ovhd expenses		24.20		21.99		21.10		23.54		18.00
Net return		-4.65		-1.77		0.18		1.57		3.42
Labor & management charge		1.30		0.96		0.70		1.50		0.93
Net return over lbr & mgt		-5.96		-2.74		-0.52		0.07		2.49
<b>Cost of Production Per Cwt. Of Milk</b>										
Total direct expense per unit		21.71		20.28		19.10		22.20		16.42
Total dir & ovhd expense per unit		24.20		21.99		21.10		23.54		18.00
With other revenue adjustments		21.28		19.49		18.01		18.63		15.28
With labor and management		22.58		20.46		18.71		20.13		16.21
Est. labor hours per unit		0.32		0.23		0.22		0.23		0.14
<b>Other Information</b>										
Number of cows		245.1		234.5		553.3		275.5		297.4
Milk produced per cow		23,936		24,183		24,251		23,943		26,504
Total milk sold		5,866,993		5,643,765		13,416,208		6,591,505		7,870,743
Lb. of milk sold per FTE		875,496		1,217,212		1,267,307		1,232,565		2,004,675
Culling percentage		39.6		29.6		40.6		49.2		28.5
Turnover rate		45.4		32.9		44.7		51.0		29.9
Cow death loss percent		5.8		3.3		4.2		1.6		1.3
Percent of barn capacity		100.9		107.7		114.2		116.7		82.0
Feed cost per day		8.51		8.16		7.40		9.12		7.57
Feed cost per cwt. of milk		12.97		12.32		11.14		13.91		10.42
Feed cost per cow		3,105.26		2,978.99		2,700.76		3,330.41		2,762.48
Avg. milk price per cwt.		16.63		17.73		18.19		20.21		18.69
Milk price / feed margin		3.65		5.41		7.05		6.30		8.27

**Livestock Enterprise Analysis  
(Farms Sorted By Enterprise Size)**

**Dairy -- Average Per Cow**

	<u>50</u> <u>100</u>		<u>100</u> <u>200</u>		<u>200</u> <u>500</u>		<u>Over</u> <u>500</u>	
Number of farms	7		10		14		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	19,166.9	4,085.16	22,035.6	4,276.26	23,378.3	4,173.53	26,704.6	4,886.57
Dairy Calves sold (hd)	0.4	177.19	0.3	180.06	0.4	184.50	0.5	188.07
Transferred out (hd)	0.0	-	-	-	0.1	-	0.0	-
Cull sales (hd)	0.3	318.33	0.3	384.03	0.3	419.83	0.4	650.40
Other income		59.50		27.96		42.32		1.14
Purchased (hd)	0.1	-108.41	0.0	-4.25	0.1	-143.91	-	-
Transferred in (hd)	-	-	-	-	-	-	-	-
Inventory change (hd)	0.0	110.25	0.0	80.43	0.1	246.38	0.1	44.59
Gross margin		4,642.02		4,950.42		4,922.64		5,770.77
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	-	1,522.31	-	1,554.08	-	1,778.65	361.1	1,435.33
Corn (bu.)	30.3	120.02	55.2	326.36	41.7	219.86	25.1	162.72
Corn Silage (lb.)	18,795.6	375.77	21,671.5	449.30	23,002.3	442.75	26,360.0	673.98
Hay, Alfalfa (lb.)	1,112.3	58.94	4,875.7	240.60	3,019.8	161.90	2,344.3	137.61
Hay, Grass (lb.)	1,768.1	69.39	2,195.0	136.78	737.1	37.69	2,181.6	79.54
Haylage, Grass (lb.)	597.8	21.15	1,238.9	91.27	2,653.5	70.72	1,692.7	60.61
Rye Silage (lb.)	857.1	37.77	522.3	22.48	2,186.5	74.02	3,873.7	177.67
Sudex (lb.)	527.5	17.27	-	-	85.5	6.31	144.5	3.62
Other feed stuffs (lb)	5,498.0	465.20	775.2	102.07	929.7	40.34	4,746.9	279.41
Breeding fees		43.71		84.39		95.16		114.30
Veterinary		76.44		103.86		176.64		151.13
Supplies		299.89		277.30		441.18		265.63
Fuel & oil		57.81		53.62		65.63		61.72
Repairs		267.72		187.28		156.53		78.86
Custom hire		22.93		55.92		111.98		259.30
Hired labor		199.49		367.27		593.52		702.24
Utilities		126.16		127.49		114.64		118.13
Hauling and trucking		160.20		141.83		128.34		119.32
Bedding		35.64		121.09		127.56		85.68
Total direct expenses		3,977.82		4,442.99		4,843.44		4,966.80
Return over direct expense		664.19		507.43		79.20		803.97
<b>Overhead Expenses</b>								
Interest		65.10		97.45		107.34		84.55
Mach & bldg depreciation		102.54		181.55		243.95		233.70
Miscellaneous		115.26		179.81		112.90		126.61
Total overhead expenses		282.89		458.81		464.18		444.86
Total dir & ovhd expenses		4,260.72		4,901.80		5,307.62		5,411.65
Net return		381.30		48.62		-384.98		359.11
Labor & management charge		533.92		320.25		258.35		184.71
Net return over lbr & mgt		-152.62		-271.62		-643.33		174.40
<b>Cost of Production Per Cwt. Of Milk</b>								
Total direct expense per unit		20.63		20.11		20.68		18.60
Total dir & ovhd expense per unit		22.10		22.19		22.67		20.26
With other revenue adjustments		19.33		19.18		19.49		16.95
With labor and management		22.10		20.63		20.60		17.65
Est. labor hours per unit		76.94		51.59		60.62		46.07
<b>Other Information</b>								
Number of cows		65.0		152.8		342.4		960.0
Milk produced per cow		19,282		22,090		23,417		26,706
Total milk sold		1,245,846		3,367,047		8,003,721		25,636,398
Lb. of milk sold per FTE		697,488		1,195,902		1,079,887		1,623,093
Culling percentage		27.5		31.5		35.0		43.3
Turnover rate		39.8		35.3		38.9		45.0
Cow death loss percent		12.3		3.7		3.9		1.7
Percent of barn capacity		80.2		111.1		106.3		103.2
Feed cost per day		7.36		8.01		7.76		8.25
Feed cost per cwt. of milk		13.94		13.23		12.09		11.27
Feed cost per cow		2,687.83		2,922.94		2,832.25		3,010.49
Avg. milk price per cwt.		21.31		19.41		17.85		18.30
Milk price / feed margin		7.37		6.17		5.76		7.03

**Livestock Enterprise Analysis**  
**(Farms Sorted By Enterprise Size)**

**Dairy -- Average Per Cwt. Of Milk**

	<u>50</u> <u>100</u>		<u>100</u> <u>200</u>		<u>200</u> <u>500</u>		<u>Over</u> <u>500</u>	
	7		10		14		6	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Number of farms								
Milk sold (hd)	99.40	21.19	99.75	19.36	99.84	17.82	99.99	18.30
Dairy Calves sold (hd)	0.00	0.92	0.00	0.82	0.00	0.79	0.00	0.70
Transferred out (hd)	0.00	-	-	-	0.00	-	0.00	-
Cull sales (hd)	0.00	1.65	0.00	1.74	0.00	1.79	0.00	2.44
Other income		0.31		0.13		0.18		0.00
Purchased (hd)	0.00	-0.56	0.00	-0.02	0.00	-0.61	-	-
Transferred in (hd)	-	-	-	-	-	-	-	-
Inventory change (hd)	0.00	0.57	0.00	0.36	0.00	1.05	0.00	0.17
Gross margin		24.07		22.41		21.02		21.61
<b>Direct Expenses</b>								
Protein Vit Minerals (lb.)	-	7.90	-	7.04	-	7.60	1.35	5.37
Corn (bu.)	0.16	0.62	0.25	1.48	0.18	0.94	0.09	0.61
Corn Silage (lb.)	97.48	1.95	98.11	2.03	98.23	1.89	98.70	2.52
Hay, Alfalfa (lb.)	5.77	0.31	22.07	1.09	12.90	0.69	8.78	0.52
Hay, Grass (lb.)	9.17	0.36	9.94	0.62	3.15	0.16	8.17	0.30
Haylage, Grass (lb.)	3.10	0.11	5.61	0.41	11.33	0.30	6.34	0.23
Rye Silage (lb.)	4.45	0.20	2.36	0.10	9.34	0.32	14.50	0.67
Sudex (lb.)	2.74	0.09	-	-	0.37	0.03	0.54	0.01
Corn Silage, Organic (lb.)	20.29	0.61	-	-	-	-	2.67	0.09
Hay, Mixed, Organic (lb.)	7.90	0.63	-	-	-	-	-	-
Other feed stuffs (lb)	0.32	1.18	3.51	0.46	3.97	0.17	15.11	0.96
Veterinary		0.40		0.47		0.75		0.57
Supplies		1.78		1.64		2.29		1.42
Fuel & oil		0.30		0.24		0.28		0.23
Repairs		1.39		0.85		0.67		0.30
Custom hire		0.12		0.25		0.48		0.97
Hired labor		1.03		1.66		2.53		2.63
Utilities		0.65		0.58		0.49		0.44
Hauling and trucking		0.83		0.64		0.55		0.45
Bedding		0.18		0.55		0.54		0.32
Total direct expenses		20.63		20.11		20.68		18.60
Return over direct expense		3.44		2.30		0.34		3.01
<b>Overhead Expenses</b>								
Mach & bldg depreciation		0.53		0.82		1.04		0.88
Miscellaneous		0.94		1.26		0.94		0.79
Total overhead expenses		1.47		2.08		1.98		1.67
Total dir & ovhd expenses		22.10		22.19		22.67		20.26
Net return		1.98		0.22		-1.64		1.34
Labor & management charge		2.77		1.45		1.10		0.69
Net return over lbr & mgt		-0.79		-1.23		-2.75		0.65
<b>Cost of Production Per Cwt. Of Milk</b>								
Total direct expense per unit		20.63		20.11		20.68		18.60
Total dir & ovhd expense per unit		22.10		22.19		22.67		20.26
With other revenue adjustments		19.33		19.18		19.49		16.95
With labor and management		22.10		20.63		20.60		17.65
Est. labor hours per unit		0.40		0.23		0.26		0.17
<b>Other Information</b>								
Number of cows		65.0		152.8		342.4		960.0
Milk produced per cow		19,282		22,090		23,417		26,706
Total milk sold		1,245,846		3,367,047		8,003,721		25,636,398
Lb. of milk sold per FTE		697,488		1,195,902		1,079,887		1,623,093
Culling percentage		27.5		31.5		35.0		43.3
Turnover rate		39.8		35.3		38.9		45.0
Cow death loss percent		12.3		3.7		3.9		1.7
Percent of barn capacity		80.2		111.1		106.3		103.2
Feed cost per day		7.36		8.01		7.76		8.25
Feed cost per cwt. of milk		13.94		13.23		12.09		11.27
Feed cost per cow		2,687.83		2,922.94		2,832.25		3,010.49
Avg. milk price per cwt.		21.31		19.41		17.85		18.30
Milk price / feed margin		7.37		6.17		5.76		7.03

**Dairy Per Cow; 2015**

**Herds with 30 to 200 cows**

**RankEm**

Benchmark Report, 19 Farms

	<b>Group Median</b>	<b>Count</b>	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>	<b>60%</b>	<b>70%</b>	<b>80%</b>	<b>90%</b>	<b>100%</b>
Milk sales	3,961.90	19	3,079.84	3,192.08	3,569.81	3,677.80	3,776.73	3,963.44	4,051.22	4,310.87	4,998.59	6,245.53
Gross Margin	4,432.03	19	3,433.24	3,857.25	4,083.47	4,289.51	4,358.16	4,582.36	4,765.98	4,948.49	5,680.08	6,953.48
Total feed expense	2,655.78	19	3,983.93	3,652.70	3,296.07	3,024.84	2,771.99	2,631.33	2,551.42	2,422.28	2,246.76	1,992.77
Breeding Fees	54.72	18	181.26	104.95	85.94	80.79	58.26	50.04	38.24	36.02	29.86	15.57
Veterinary	89.39	19	216.60	167.14	120.62	104.09	96.58	88.22	80.19	68.70	59.10	36.49
Livestock supplies	146.89	19	353.49	316.18	274.32	209.93	163.54	146.50	128.45	107.23	101.02	67.47
Fuel & Oil	60.68	19	182.98	108.27	94.75	76.62	65.02	60.30	50.75	39.71	24.47	17.39
Marketing	50.38	19	78.86	71.65	66.66	62.40	53.92	50.01	44.62	34.51	25.43	6.87
Operating interest	14.59	12	99.29	34.94	25.27	25.26	18.30	9.76	2.96	2.82	2.44	1.44
Total direct expenses	4,021.10	19	5,680.14	5,385.32	4,935.59	4,589.46	4,358.73	3,923.93	3,738.88	3,605.46	3,383.06	3,100.63
Return over direct expenses	600.80	19	-1,077.93	-492.46	-60.08	194.00	470.21	724.45	960.35	1,001.84	1,097.32	2,017.60
Hired labor <sup>1</sup>	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Real estate taxes	31.90	13	109.42	52.54	47.50	46.12	35.59	31.49	24.84	11.59	11.40	1.01
Farm insurance	53.70	18	129.76	108.64	78.95	69.22	57.53	51.20	48.10	26.24	15.20	13.90
Utilities <sup>1</sup>	0.00	17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Interest on interm. Debt	15.27	12	63.52	54.39	51.68	38.87	17.34	12.31	8.01	6.77	4.30	4.29
Interest on long term debt	101.10	10	336.17	166.52	121.77	113.63	101.98	100.22	65.79	49.78	34.02	27.10
Machinery depreciation	49.40	19	373.96	230.42	156.82	84.44	65.85	44.89	36.61	29.44	19.11	6.79
Building depreciation	52.99	18	321.33	151.24	78.93	60.00	54.68	50.33	38.98	19.77	6.40	1.10
Total overhead expenses	325.73	19	900.66	684.60	469.64	432.87	369.85	317.84	295.62	252.59	193.89	142.09
Total dir & ovhd expense	4,314.18	19	6,580.80	5,935.26	5,295.09	4,918.00	4,714.96	4,296.19	4,056.72	3,975.32	3,745.78	3,242.72
Net return	275.06	19	-1,556.68	-686.35	-482.05	-355.70	112.57	293.56	482.96	628.39	727.56	1,822.35
Net return over lbr & mgt	-254.80	19	-2,718.21	-1,226.46	-795.87	-482.20	-375.86	-207.97	3.18	240.57	352.96	1,033.94
Cost of production	21.58	19	33.92	29.77	25.18	24.03	23.02	21.52	19.38	17.99	16.90	16.49
Corn Fed (Bu.)	65.31	13	187.97	142.08	113.14	81.82	72.71	64.18	33.59	19.16	14.43	10.47
Corn Silage Fed (Ton)	12.75	15	18.11	15.56	15.41	14.80	13.34	12.59	11.75	9.15	8.32	7.89
Hay, Alfalfa Fed (Ton)	0.00	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg. number of head	103.0	19	30.0	43.0	57.0	68.0	77.0	118.0	133.0	143.5	180.0	189.5
Milk produced per head	20,897	19	11,950	14,947	18,656	18,893	20,063	21,278	21,841	22,160	23,261	28,082
Culling percentage	30.1	19	2.9	15.5	22.2	23.9	29.2	30.8	34.7	38.6	41.4	47.0
Turnover rate	37.8	19	5.7	16.9	26.6	31.3	33.2	40.0	44.0	49.9	56.5	65.6
Percent of barn capacity	93.6	19	57.4	73.7	85.4	87.1	91.8	96.8	101.4	111.7	127.8	148.3
Feed cost per cwt of milk	14.07	19	19.15	17.66	16.31	15.54	14.57	13.47	12.29	11.81	11.32	9.61
Feed cost per head	2,655.78	19	3,983.93	3,652.70	3,296.07	3,024.84	2,771.99	2,631.33	2,551.42	2,422.28	2,246.76	1,992.77
Hired labor per cow	233.44	16	673.06	630.94	567.47	497.48	252.32	211.56	140.17	95.54	48.24	44.15
Avg. milk price per cwt.	18.30	19	16.84	17.11	17.50	17.93	18.22	18.51	19.14	20.42	24.06	37.26

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary

**Dairy Per Cwt. Of Milk; 2015**

**Herds with 30 to 200 cows**

**RankEm**

Benchmark Report, 19 Farms

	<b>Group Median</b>	<b>Count</b>	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>	<b>60%</b>	<b>70%</b>	<b>80%</b>	<b>90%</b>	<b>100%</b>
Milk sales	18.29	19	16.70	17.08	17.49	17.82	18.17	18.30	19.14	20.32	24.06	36.19
Gross Margin	21.53	19	19.45	20.14	20.54	20.70	21.21	21.59	22.19	23.31	26.93	39.66
Total feed expense	14.07	19	19.15	17.66	16.31	15.54	14.57	13.47	12.29	11.81	11.32	9.61
Breeding Fees	0.29	18	0.78	0.47	0.42	0.37	0.31	0.26	0.22	0.15	0.14	0.08
Veterinary	0.41	19	1.17	0.76	0.65	0.54	0.47	0.41	0.34	0.32	0.31	0.23
Livestock supplies	0.74	19	1.92	1.55	1.38	1.11	0.77	0.74	0.69	0.59	0.46	0.29
Fuel & Oil	0.28	19	0.99	0.72	0.42	0.35	0.29	0.27	0.26	0.21	0.12	0.09
Marketing	0.24	19	0.47	0.33	0.29	0.27	0.26	0.24	0.21	0.18	0.13	0.05
Operating interest	0.07	12	0.76	0.21	0.16	0.12	0.10	0.05	0.02	0.01	0.01	0.01
Total direct expenses	20.37	19	26.90	26.46	23.71	23.27	22.88	20.32	18.03	17.23	16.56	15.98
Return over direct expenses	3.39	19	-5.85	-2.30	-0.33	0.68	2.58	3.63	4.23	4.59	4.89	13.09
Hired labor <sup>1</sup>	0.00	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	0.15	13	0.58	0.26	0.21	0.17	0.17	0.14	0.12	0.06	0.05	0.00
Farm insurance	0.23	18	0.69	0.56	0.38	0.33	0.28	0.23	0.19	0.14	0.11	0.06
Utilities <sup>1</sup>	0.00	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on interm. Debt	0.07	12	0.39	0.25	0.25	0.18	0.09	0.06	0.04	0.03	0.02	0.02
Interest on long term debt	0.50	10	1.44	0.74	0.60	0.56	0.53	0.47	0.30	0.20	0.20	0.09
Machinery depreciation	0.24	19	1.23	1.14	0.66	0.45	0.34	0.24	0.20	0.15	0.10	0.03
Building depreciation	0.26	18	1.04	0.72	0.39	0.35	0.29	0.25	0.19	0.09	0.03	0.00
Total overhead expenses	1.58	19	3.77	2.75	2.32	1.96	1.70	1.57	1.47	1.31	1.14	0.89
Total dir & ovhd expense	22.66	19	29.26	27.84	26.29	24.55	23.97	22.64	20.27	18.76	18.05	17.87
Net return	1.32	19	-8.44	-3.19	-2.07	-1.90	0.48	1.68	2.37	2.69	3.46	11.82
Net return over lbr & mgt	-1.14	19	-14.74	-5.56	-3.52	-2.55	-1.76	-1.11	-0.02	1.14	1.53	6.25
Cost of production	21.58	19	33.92	29.77	25.18	24.03	23.02	21.52	19.38	17.99	16.90	16.49
Corn Fed (Bu.)	0.31	13	0.81	0.61	0.56	0.46	0.38	0.30	0.15	0.09	0.07	0.05
Corn Silage Fed (Ton)	0.06	15	0.10	0.10	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04
Hay, Alfalfa Fed (Ton)	0.00	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg. number of head	103.0	19	30.0	43.0	57.0	68.0	77.0	118.0	133.0	143.5	180.0	189.5
Milk produced per head	20,897	19	11,950	14,947	18,656	18,893	20,063	21,278	21,841	22,160	23,261	28,082
Culling percentage	30.1	19	2.9	15.5	22.2	23.9	29.2	30.8	34.7	38.6	41.4	47.0
Turnover rate	37.8	19	5.7	16.9	26.6	31.3	33.2	40.0	44.0	49.9	56.5	65.6
Percent of barn capacity	93.6	19	57.4	73.7	85.4	87.1	91.8	96.8	101.4	111.7	127.8	148.3
Feed cost per cwt of milk	14.07	19	19.15	17.66	16.31	15.54	14.57	13.47	12.29	11.81	11.32	9.61
Feed cost per head	2,655.78	19	3,983.93	3,652.70	3,296.07	3,024.84	2,771.99	2,631.33	2,551.42	2,422.28	2,246.76	1,992.77
Hired labor per cow	233.44	16	673.06	630.94	567.47	497.48	252.32	211.56	140.17	95.54	48.24	44.15
Avg. milk price per cwt.	18.30	19	16.84	17.11	17.50	17.93	18.22	18.51	19.14	20.42	24.06	37.26

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary

Benchmark Report, 14 Farms

	Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Milk sales	4,260.64	14	2,888.63	3,356.25	3,715.40	3,802.45	4,168.33	4,422.37	4,562.94	4,674.38	4,744.94	4,940.31
Gross Margin	5,074.98	14	3,513.43	3,790.78	4,310.08	4,352.93	5,026.09	5,145.55	5,411.58	5,572.86	5,607.56	5,927.94
Total feed expense	2,775.76	14	3,454.89	3,421.44	3,341.43	3,110.65	2,801.59	2,745.63	2,612.23	2,513.07	2,170.01	2,164.79
Breeding Fees	93.97	14	142.29	130.65	115.30	108.57	100.91	88.04	82.06	56.44	52.16	39.77
Veterinary	164.33	14	283.37	265.24	254.40	211.21	168.74	160.97	139.82	99.72	86.80	56.93
Livestock supplies	134.96	14	367.16	197.32	185.15	164.15	145.78	131.10	118.16	97.69	76.78	66.50
Fuel & Oil	63.50	14	96.16	92.46	87.72	82.08	70.32	59.30	50.18	40.48	37.70	33.00
Marketing	66.92	14	211.42	158.31	146.74	77.27	69.35	63.43	56.59	52.38	52.28	47.10
Operating interest	5.75	14	61.27	23.58	18.15	10.02	7.60	4.86	2.36	1.17	1.03	0.75
Total direct expenses	4,819.86	14	6,179.87	5,702.49	5,692.98	5,074.53	4,927.30	4,634.14	4,194.90	3,971.81	3,954.93	3,905.91
Return over direct expenses	110.59	14	-811.32	-488.66	-454.37	-263.10	-18.22	260.39	438.72	575.02	760.73	1,108.26
Hired labor <sup>1</sup>	0.00	14	18.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	21.59	13	58.49	47.61	39.27	34.49	22.61	20.07	15.59	14.10	9.92	8.10
Farm insurance	32.80	14	97.89	60.19	52.70	43.69	37.68	29.25	22.12	17.27	16.74	9.09
Utilities <sup>1</sup>	0.00	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on interm. Debt	12.43	11	80.85	38.79	29.06	22.38	20.34	11.37	9.32	7.02	6.67	2.91
Interest on long term debt	113.80	13	170.75	165.98	148.51	140.69	115.31	104.35	65.01	40.17	32.74	11.70
Machinery depreciation	55.68	14	196.41	108.84	102.13	67.93	59.23	48.93	35.99	31.54	25.77	16.88
Building depreciation	85.11	13	1,323.11	280.61	169.39	159.26	118.45	83.83	61.80	41.43	38.25	33.92
Total overhead expenses	404.06	14	1,730.71	569.16	484.76	434.91	421.37	384.38	292.23	286.72	254.81	190.92
Total dir & ovhd expense	5,094.50	14	7,910.57	6,133.76	6,085.79	5,462.59	5,254.49	4,980.82	4,569.65	4,390.67	4,355.04	4,241.65
Net return	-321.23	14	-1,982.63	-1,226.63	-881.47	-640.73	-514.43	-129.23	96.36	265.43	322.18	821.54
Net return over lbr & mgt	-559.09	14	-2,313.76	-1,297.50	-1,286.99	-894.35	-725.94	-358.47	-159.27	-1.80	68.34	372.73
Cost of production	20.23	14	26.27	23.25	22.08	21.78	21.43	19.22	18.78	18.02	17.82	17.10
Corn Fed (Bu.)	48.22	10	136.34	95.25	73.37	52.95	52.75	43.69	41.66	33.54	30.37	1.73
Corn Silage Fed (Ton)	12.27	12	24.00	17.46	15.66	14.25	12.37	12.19	11.59	9.45	9.40	8.44
Hay, Alfalfa Fed (Ton)	0.00	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg. number of head	346.5	14	201.0	252.0	253.0	283.5	322.5	371.5	389.0	419.0	455.0	480.0
Milk produced per head	23,429	14	18,850	19,115	19,585	20,232	21,769	25,495	26,093	26,550	27,612	28,917
Culling percentage	32.7	14	15.9	20.6	22.3	26.6	30.3	37.5	41.5	42.2	44.4	64.4
Turnover rate	37.6	14	15.9	22.3	28.2	31.9	36.2	39.5	41.6	42.9	49.2	77.0
Percent of barn capacity	108.6	14	80.4	89.2	97.0	97.5	104.8	110.2	113.3	120.0	128.1	158.2
Feed cost per cwt of milk	12.20	14	14.52	14.43	12.89	12.64	12.24	12.16	11.52	10.97	10.47	9.72
Feed cost per head	2,775.76	14	3,454.89	3,421.44	3,341.43	3,110.65	2,801.59	2,745.63	2,612.23	2,513.07	2,170.01	2,164.79
Hired labor per cow	627.59	14	995.33	754.08	737.25	658.90	651.82	511.71	355.21	350.63	340.03	312.88
Avg. milk price per cwt.	17.73	14	13.24	15.99	16.20	17.15	17.56	17.93	18.15	20.11	21.05	22.99

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary

**Dairy Per Cwt. Of Milk; 2015**

**Herds with 200 to 500 cows**

**RankEm**

Benchmark Report, 14 Farms

	<b>Group Median</b>	<b>Count</b>	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>	<b>60%</b>	<b>70%</b>	<b>80%</b>	<b>90%</b>	<b>100%</b>
Milk sales	17.73	14	13.24	15.90	15.99	17.15	17.56	17.93	18.15	20.11	21.05	22.99
Gross Margin	21.13	14	16.10	17.59	19.01	19.72	20.43	21.34	21.47	22.87	25.59	28.63
Total feed expense	12.20	14	14.52	14.43	12.89	12.64	12.24	12.16	11.52	10.97	10.47	9.72
Breeding Fees	0.41	14	0.75	0.54	0.49	0.46	0.42	0.38	0.34	0.29	0.19	0.18
Veterinary	0.70	14	1.17	1.13	1.09	0.90	0.75	0.66	0.53	0.48	0.40	0.30
Livestock supplies	0.61	14	1.38	1.00	0.76	0.69	0.65	0.57	0.49	0.45	0.37	0.26
Fuel & Oil	0.28	14	0.44	0.43	0.40	0.38	0.32	0.23	0.19	0.17	0.16	0.15
Marketing	0.26	14	1.02	0.84	0.75	0.29	0.26	0.26	0.25	0.24	0.24	0.20
Operating interest	0.02	14	0.31	0.09	0.07	0.04	0.03	0.02	0.01	0.00	0.00	0.00
Total direct expenses	20.35	14	26.30	22.38	21.98	21.70	20.99	19.91	19.24	18.57	17.97	17.23
Return over direct expenses	0.40	14	-3.72	-2.09	-1.84	-1.17	-0.09	1.24	2.18	2.33	3.04	5.60
Hired labor <sup>1</sup>	0.00	14	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	0.08	13	0.23	0.19	0.15	0.12	0.09	0.08	0.07	0.07	0.05	0.04
Farm insurance	0.16	14	0.38	0.24	0.23	0.20	0.16	0.15	0.09	0.07	0.06	0.05
Utilities <sup>1</sup>	0.00	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on interm. Debt	0.05	11	0.29	0.21	0.11	0.10	0.09	0.05	0.04	0.03	0.03	0.01
Interest on long term debt	0.44	13	0.68	0.66	0.62	0.60	0.48	0.44	0.32	0.15	0.12	0.06
Machinery depreciation	0.24	14	0.68	0.55	0.52	0.25	0.24	0.23	0.18	0.12	0.10	0.08
Building depreciation	0.34	13	4.79	1.49	0.77	0.65	0.46	0.33	0.26	0.18	0.18	0.16
Total overhead expenses	1.59	14	6.27	2.57	2.07	1.94	1.71	1.50	1.45	1.17	1.12	0.97
Total dir & ovhd expense	22.26	14	28.65	27.28	23.64	23.21	22.85	21.58	20.99	19.73	19.69	19.20
Net return	-1.14	14	-7.18	-5.62	-3.32	-3.11	-1.91	-0.55	0.37	1.29	1.36	4.15
Net return over lbr & mgt	-2.01	14	-8.38	-5.95	-4.85	-4.37	-2.66	-1.58	-0.78	-0.01	0.27	1.88
Cost of production	20.23	14	26.27	23.25	22.08	21.78	21.43	19.22	18.78	18.02	17.82	17.10
Corn Fed (Bu.)	0.23	10	0.53	0.37	0.29	0.28	0.24	0.21	0.19	0.16	0.13	0.01
Corn Silage Fed (Ton)	0.05	12	0.11	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04
Hay, Alfalfa Fed (Ton)	0.00	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avg. number of head	346.5	14	201.0	252.0	253.0	283.5	322.5	371.5	389.0	419.0	455.0	480.0
Milk produced per head	23,429	14	18,850	19,115	19,585	20,232	21,769	25,495	26,093	26,550	27,612	28,917
Culling percentage	32.7	14	15.9	20.6	22.3	26.6	30.3	37.5	41.5	42.2	44.4	64.4
Turnover rate	37.6	14	15.9	22.3	28.2	31.9	36.2	39.5	41.6	42.9	49.2	77.0
Percent of barn capacity	108.6	14	80.4	89.2	97.0	97.5	104.8	110.2	113.3	120.0	128.1	158.2
Feed cost per cwt of milk	12.20	14	14.52	14.43	12.89	12.64	12.24	12.16	11.52	10.97	10.47	9.72
Feed cost per head	2,775.76	14	3,454.89	3,421.44	3,341.43	3,110.65	2,801.59	2,745.63	2,612.23	2,513.07	2,170.01	2,164.79
Hired labor per cow	627.59	14	995.33	754.08	737.25	658.90	651.82	511.71	355.21	350.63	340.03	312.88
Avg. milk price per cwt.	17.73	14	13.24	15.99	16.20	17.15	17.56	17.93	18.15	20.11	21.05	22.99

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary



**Dairy Per Cow; 2015**

Herds with 200 to 1200 cows

**RankEm**

Benchmark Report, 21 Farms

	Group		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
	Median	Count										
Milk sales	4,494.53	21	3,122.44	3,752.91	3,990.04	4,260.64	4,469.58	4,501.77	4,649.25	4,842.63	5,136.67	6,053.65
Gross Margin	5,243.26	21	3,652.10	4,311.52	4,690.95	5,074.98	5,210.91	5,261.68	5,567.18	5,747.75	5,920.08	7,187.65
Total feed expense	2,816.20	21	3,913.28	3,438.17	3,257.75	3,025.67	2,874.35	2,776.26	2,711.46	2,631.34	2,532.08	2,167.40
Breeding Fees	98.98	21	146.69	131.06	114.23	110.07	104.69	98.39	87.94	82.06	65.43	45.97
Veterinary	158.52	21	320.38	259.82	211.21	168.74	163.90	156.26	124.40	107.18	90.91	35.66
Livestock supplies	130.37	21	282.24	176.30	164.15	145.99	134.96	123.37	107.24	95.56	71.64	60.69
Fuel & Oil	64.80	21	102.93	90.09	83.38	77.32	66.92	62.20	54.07	50.18	39.09	32.76
Marketing	62.29	21	184.87	124.41	80.89	69.51	66.92	62.23	54.29	52.33	49.43	47.71
Operating interest	5.75	20	42.43	14.13	9.65	8.71	6.04	5.28	3.68	2.36	1.31	0.89
Total direct expenses	4,767.33	21	6,462.64	5,697.73	5,217.48	4,990.03	4,845.05	4,744.37	4,555.93	4,403.60	4,018.43	3,930.42
Return over direct expenses	404.17	21	-649.99	-364.32	-196.46	110.59	321.61	421.09	565.27	696.54	1,186.57	1,766.23
Hired labor <sup>1</sup>	0.00	21	9.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Machinery leases	0.00	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building leases	0.00	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	16.98	19	58.49	43.44	34.41	22.61	20.07	16.40	14.15	11.28	8.56	7.06
Farm insurance	31.80	21	79.04	49.13	42.50	37.68	32.28	30.85	27.29	22.12	17.01	7.22
Utilities <sup>1</sup>	0.00	20	3.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on interm. Debt	12.43	17	80.85	47.45	33.93	21.76	19.01	11.37	8.89	6.85	5.27	2.91
Interest on long term debt	89.24	20	168.37	144.60	115.31	106.76	95.99	78.22	60.70	46.68	36.45	13.44
Machinery depreciation	52.46	21	162.44	109.11	91.09	67.93	59.23	51.49	42.02	33.26	28.75	21.32
Building depreciation	107.59	20	801.86	231.71	178.22	149.12	118.64	100.56	83.83	61.80	39.84	31.41
Total overhead expenses	427.43	21	1,149.93	488.22	475.76	453.36	434.39	415.32	373.59	292.23	270.76	168.78
Total dir & ovhd expense	5,166.86	21	7,513.60	6,109.78	5,490.89	5,357.96	5,256.80	5,079.09	4,998.14	4,839.78	4,394.95	4,298.35
Net return	-75.47	21	-1,604.63	-795.33	-568.27	-321.23	-104.19	-6.34	181.62	293.81	824.46	1,447.06
Net return over lbr & mgmt	-266.80	21	-1,805.63	-1,134.41	-782.54	-608.01	-358.47	-198.97	-28.72	33.27	396.24	1,300.66
Cost of production	19.19	21	26.41	22.67	21.78	21.43	19.42	19.17	18.21	17.67	17.24	15.58
Corn Fed (Bu.)	42.58	16	136.34	95.25	63.16	52.11	43.60	37.60	26.74	14.02	1.73	0.00
Corn Silage Fed (Ton)	12.27	18	24.00	17.32	15.66	14.55	12.37	12.23	12.14	10.52	9.28	8.44
Hay, Alfalfa Fed (Ton)	2.05	12	5.07	4.68	4.64	3.55	2.34	1.96	1.29	1.24	0.27	0.02
Avg. number of head	382.0	21	226.5	253.5	283.5	322.5	371.5	396.0	467.5	691.0	887.0	1,175.0
Milk produced per head	25,627	21	18,983	19,622	20,232	21,769	24,716	25,948	26,250	27,081	28,764	29,076
Culling percentage	34.4	21	18.2	21.4	23.9	28.6	32.3	34.8	40.8	42.0	50.3	73.7
Turnover rate	36.9	21	18.4	22.1	29.6	33.1	35.1	38.3	41.6	45.9	54.1	80.2
Percent of barn capacity	108.3	21	72.1	93.1	97.2	99.0	104.4	108.8	113.3	124.1	136.6	158.5
Feed cost per cwt of milk	12.15	21	16.62	14.40	12.83	12.38	12.20	11.56	11.44	10.72	10.07	9.58
Feed cost per head	2,816.20	21	3,913.28	3,438.17	3,257.75	3,025.67	2,874.35	2,776.26	2,711.46	2,631.34	2,532.08	2,167.40
Hired labor per cow	606.96	21	925.35	840.17	745.67	658.90	648.22	567.80	469.54	373.14	351.31	326.46
Avg. milk price per cwt.	17.76	21	14.62	16.57	17.31	17.50	17.59	17.89	18.12	18.30	20.58	29.00

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary

**Dairy Per Cwt. Of Milk; 2015**

**Herds with 200 to 1200 cows**

**RankEm**

Benchmark Report, 21 Farms

	<b>Group Median</b>	<b>Count</b>	<b>10%</b>	<b>20%</b>	<b>30%</b>	<b>40%</b>	<b>50%</b>	<b>60%</b>	<b>70%</b>	<b>80%</b>	<b>90%</b>	<b>100%</b>
Milk sales	17.76	21	14.57	16.46	17.31	17.50	17.59	17.89	18.12	18.30	20.58	29.00
Gross Margin	21.01	21	16.85	19.31	19.84	20.20	20.50	21.25	21.45	22.17	24.90	33.10
Total feed expense	12.15	21	16.62	14.40	12.83	12.38	12.20	11.56	11.44	10.72	10.07	9.58
Breeding Fees	0.40	21	0.67	0.56	0.52	0.46	0.42	0.38	0.34	0.34	0.27	0.19
Veterinary	0.63	21	1.20	1.11	0.90	0.75	0.66	0.55	0.50	0.43	0.39	0.19
Livestock supplies	0.56	21	1.19	0.73	0.68	0.64	0.58	0.53	0.41	0.37	0.30	0.25
Fuel & Oil	0.25	21	0.44	0.41	0.39	0.34	0.29	0.24	0.21	0.18	0.16	0.14
Marketing	0.25	21	0.93	0.55	0.29	0.27	0.26	0.25	0.24	0.23	0.21	0.20
Operating interest	0.02	20	0.20	0.06	0.04	0.03	0.02	0.02	0.02	0.01	0.01	0.00
Total direct expenses	19.82	21	26.59	22.88	21.96	21.35	20.35	19.75	18.89	18.03	17.60	15.73
Return over direct expenses	2.04	21	-2.91	-1.64	-0.73	0.40	1.24	2.12	2.27	2.75	4.65	8.15
Hired labor <sup>1</sup>	0.00	21	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Machinery leases	0.00	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building leases	0.00	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Real estate taxes	0.08	19	0.23	0.17	0.12	0.09	0.08	0.07	0.07	0.05	0.04	0.03
Farm insurance	0.14	21	0.31	0.23	0.17	0.16	0.15	0.13	0.10	0.09	0.06	0.03
Utilities <sup>1</sup>	0.00	20	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on interm. Debt	0.05	17	0.29	0.21	0.15	0.09	0.08	0.05	0.04	0.03	0.02	0.01
Interest on long term debt	0.36	20	0.67	0.61	0.48	0.44	0.41	0.31	0.23	0.19	0.14	0.07
Machinery depreciation	0.24	21	0.61	0.48	0.35	0.25	0.24	0.23	0.18	0.15	0.12	0.09
Building depreciation	0.43	20	3.14	0.91	0.68	0.56	0.46	0.40	0.33	0.26	0.18	0.15
Total overhead expenses	1.66	21	4.42	2.02	1.93	1.82	1.72	1.53	1.46	1.37	1.15	0.86
Total dir & ovhd expense	21.70	21	28.14	25.97	23.47	23.02	22.26	21.44	20.29	19.77	19.45	17.33
Net return	-0.31	21	-6.40	-3.29	-2.58	-1.14	-0.44	-0.03	0.70	1.32	3.05	7.05
Net return over lbr & mgt	-1.29	21	-7.16	-4.68	-3.57	-2.10	-1.58	-0.82	-0.11	0.13	1.67	5.83
Cost of production	19.19	21	26.41	22.67	21.78	21.43	19.42	19.17	18.21	17.67	17.24	15.58
Corn Fed (Bu.)	0.18	16	0.53	0.37	0.29	0.23	0.20	0.15	0.11	0.05	0.01	0.00
Corn Silage Fed (Ton)	0.05	18	0.11	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.04
Hay, Alfalfa Fed (Ton)	0.01	12	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Avg. number of head	382.0	21	226.5	253.5	283.5	322.5	371.5	396.0	467.5	691.0	887.0	1,175.0
Milk produced per head	25,627	21	18,983	19,622	20,232	21,769	24,716	25,948	26,250	27,081	28,764	29,076
Culling percentage	34.4	21	18.2	21.4	23.9	28.6	32.3	34.8	40.8	42.0	50.3	73.7
Turnover rate	36.9	21	18.4	22.1	29.6	33.1	35.1	38.3	41.6	45.9	54.1	80.2
Percent of barn capacity	108.3	21	72.1	93.1	97.2	99.0	104.4	108.8	113.3	124.1	136.6	158.5
Feed cost per cwt of milk	12.15	21	16.62	14.40	12.83	12.38	12.20	11.56	11.44	10.72	10.07	9.58
Feed cost per head	2,816.20	21	3,913.28	3,438.17	3,257.75	3,025.67	2,874.35	2,776.26	2,711.46	2,631.34	2,532.08	2,167.40
Hired labor per cow	606.96	21	925.35	840.17	745.67	658.90	648.22	567.80	469.54	373.14	351.31	326.46
Avg. milk price per cwt.	17.76	21	14.62	16.57	17.31	17.50	17.59	17.89	18.12	18.30	20.58	29.00

<sup>1</sup> Hired labor and utilities are included in total direct expenses in the Ohio Summary

## **Appendix I**

### **Dairy Enterprise Analysis Procedures and Measures**

The Dairy Enterprise Analysis shows the profitability of each dairy enterprise including four or more farms.

*Gross Margin* includes product and livestock sales, cull sales, the value of offspring transferred out of the enterprise, the value of inventory change from beginning to end of year, and any other income assigned to the enterprise. Livestock purchases and the value of animals transferred in from other enterprises are subtracted.

*Direct Expenses* include expenses that are directly related to the specific livestock enterprise. Feed and most other direct expenses are directly assigned based on farm records. Some, such as Fuel and Oil and Repairs, which are difficult to assign directly to enterprises, are determined by allocating the total annual expense across all enterprises using allocation factors entered for each farm.

*Overhead Expenses* are also determined by allocating the total annual expense across all enterprises using allocation factors entered for each farm.

*Net Return* is the Gross Return minus Total Direct and Overhead Expenses.

*Net Return over Labor and Management* is calculated by allocating the farmer's charge for unpaid labor and management across all enterprises and subtracting it from Net Return.

*Estimated Labor Hours* is calculated by allocating the farmer's estimate of total operator and hired labor hours for the year across all enterprises.

*Cost of Production* is calculated by dividing the total expense for each category by Total Production. Cull sales, other offspring sales, and any other miscellaneous income are subtracted and replacement purchases and transfers in are added to arrive at the cost *with Other Revenue Adjustments*.

*Cost of Production with Labor and Management* is the cost with other revenue adjustments plus the producer's charge for operator's labor and management. This is the breakeven price for the primary product to provide a return for operator labor and management.

The last section of each analysis contains both economic and technical efficiency measures.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.