

# 2013 Ohio Farm Business Analysis

## Dairy Enterprise Analysis Summary Including Benchmark Reports



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AND ENVIRONMENTAL SCIENCES

For information on participating in the Ohio Farm Business Analysis program analyzing your farm's 2014 performance, visit our web site at:

<http://farmprofitability.osu.edu/>

This document contains summary information for 35 dairy farms participating in the 2013 Ohio Farm Business Analysis and Benchmarking Program. These farms provided detailed financial and production data in order to complete a whole farm and enterprise analysis for their dairy and crop enterprises. Confidentiality of individual farm data is of utmost importance, so data is not shared if there are less than 5 farms in a group.

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#### Our Thanks To:

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Thirty-five Ohio dairy farms completed farm business analyses for 2013. These farms, 34 conventionally managed and one organically-managed, provided detailed financial and production data to complete both a whole farm financial analysis and dairy and crop enterprise analyses.

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# A quick look at the farms... 12/22

2013	Average of 35 farms	Range	Top 20% Average
Number of Cows	259	48 – 1,000+	211
Milk sold Per cow	24,635	15,322 - 30,759	26,812
Feed cost per cwt of milk	\$12.10	\$7.54 – 16.28	\$11.31
Total cost per cwt.*	\$20.16	\$14.30 - \$27.55	\$17.13
Net return per cow**	\$544	(\$515) - \$2,400	\$1,501

\* Including rev adj, labor and management charge; \*\*before labor and management charge

**Raised feed valued at cost of production (COP)**

Ohio Farm Business Analysis Program

**Dairy Enterprise Analysis**  
**Average of all Farms and High 20% Sorted By Net Return Per Cow**

**Dairy -- Average Per Cow**

	<u>Avg. Of All Farms</u>		<u>High 20%</u>	
	35		7	
	Quantity	Value	Quantity	Value
Number of farms				
Milk sold (hd)	24,629.5	5,276.31	26,808.9	5,800.49
Dairy Calves sold (hd)	0.4	50.20	0.2	47.02
Transferred out (hd)	0.0	-	0.0	-
Cull sales (hd)	0.3	261.07	0.3	265.48
Other income		42.88		50.00
Purchased (hd)	0.1	-2.98	0.0	-4.59
Transferred in (hd)	0.0	-	-	-
Inventory change (hd)	0.1	123.60	0.3	280.21
Gross margin		5,751.08		6,438.62
<b>Direct Expenses</b>				
Protein Vit Minerals (lb.)	190.3	1,601.54	-	1,439.83
Corn (bu.)	39.8	232.20	39.3	216.52
Corn Silage (lb.)	22,724.6	535.28	25,705.4	610.03
Corn, Ear (lb.)	333.5	22.04	1,724.5	114.20
Hay, Alfalfa (lb.)	2,566.1	209.30	1,740.5	106.78
Hay, Grass (lb.)	1,478.1	98.15	736.0	80.18
Haylage, Alfalfa (lb.)	1,772.3	42.16	6,912.9	169.50
Haylage, Grass (lb.)	1,006.5	39.01	4,571.6	113.21
Rye Silage (lb.)	1,326.5	37.96	1,862.2	92.70
Other feed stuffs (lb)	828.5	162.60	2,534.7	90.45
Breeding fees		83.30		74.83
Veterinary		140.71		110.88
Supplies		236.97		137.72
Fuel & oil		108.89		95.12
Repairs		138.50		95.41
Custom hire		86.66		117.43
Hired labor		579.04		427.95
Utilities		97.18		88.97
Hauling and trucking		121.68		138.23
Marketing		65.51		71.56
Bedding		99.54		93.48
Total direct expenses		4,738.21		4,484.99
Return over direct expense		1,012.87		1,953.63
<b>Overhead Expenses</b>				
Interest		75.53		44.22
Mach & bldg depreciation		265.91		261.86
Miscellaneous		126.97		146.33
Total overhead expenses		468.41		452.41
Total dir & ovhd expenses		5,206.62		4,937.40
Net return		544.45		1,501.22
Labor & management charge		234.33		292.00
Net return over lbr & mgt		310.13		1,209.22
<b>Cost of Production Per Cwt. Of Milk</b>				
Total direct expense per unit		19.23		16.73
Total dir & ovhd expense per unit		21.14		18.41
With other revenue adjustments		19.21		16.04
With labor and management		20.16		17.13
Est. labor hours per unit		50.03		31.78
<b>Other Information</b>				
Number of cows		258.8		211.4
Milk produced per cow		24,635		26,812
Total milk sold	6,373,561		5,668,168	
Lb. of milk sold per FTE	1,378,410		2,361,825	
Culling percentage		30.1		27.1
Turnover rate		33.9		28.2
Cow death loss percent		3.7		1.1
Percent of barn capacity		102.9		88.2
Feed cost per day		8.17		8.31
Feed cost per cwt. of milk		12.10		11.31
Feed cost per cow		2,980.23		3,033.40
Avg. milk price per cwt.		21.42		21.64

# 2013 Ohio Dairy Farm Business Analysis

Dairy Benchmark Report; Per Cow; 35 Farms, Raised feed valued at cost of production

RankEm

My Farm	Group Median	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Products Sold Value	5,070.23	3,605.83	3,819.83	4,317.11	4,580.88	4,919.23	5,118.08	5,404.90	5,726.78	6,095.25	6,339.22
Gross Margin	5,509.99	3,913.24	4,308.11	4,639.28	5,049.70	5,412.61	5,539.60	5,887.72	6,471.18	6,763.24	7,069.31
Total Feed Expense	2,909.83	3,986.59	3,599.28	3,387.32	3,222.17	2,968.52	2,879.41	2,719.18	2,334.41	2,123.75	1,948.08
Breeding Fees	74.00	137.13	111.43	92.32	85.59	77.76	71.42	66.33	47.88	37.31	26.59
Veterinary	119.02	272.17	212.27	180.33	141.38	125.42	113.75	110.44	95.28	69.88	58.39
Supplies	126.93	241.36	179.59	174.80	162.69	139.14	112.30	93.80	76.81	64.74	49.62
DHIA	25.94	35.23	31.68	30.95	29.03	26.51	25.07	23.84	19.00	16.79	7.71
Fuel & Oil	104.72	176.74	161.47	150.77	120.38	116.90	100.82	87.26	76.87	58.31	49.10
Repairs	158.90	267.11	204.18	186.06	175.18	167.32	154.87	123.08	75.61	56.75	13.18
Custom Hire	60.90	267.43	179.47	137.70	122.69	65.50	47.52	29.21	21.16	15.66	4.41
Hired Labor	558.75	898.69	680.04	635.41	619.67	599.32	522.44	344.94	268.93	176.44	66.38
Utilities	101.91	175.06	147.34	136.92	125.77	106.38	100.42	90.69	79.42	75.04	57.30
Hauling And Trucking	122.77	225.36	177.31	173.09	151.09	127.73	121.33	108.49	104.08	84.65	34.19
Marketing	59.75	85.53	76.07	72.26	70.15	63.23	55.87	53.16	45.72	41.49	32.91
Bedding	66.40	178.40	148.40	137.98	111.35	83.74	64.00	48.92	33.84	30.60	4.17
Operating Interest	9.87	61.18	34.37	26.50	18.99	10.66	7.73	4.56	2.29	0.72	0.19
All Direct Repairs	147.51	0.00	175.08	241.83	188.37	175.18	167.24	147.39	108.79	72.85	54.69
Total Direct Expenses	4,609.83	5,630.21	5,387.00	5,138.30	4,897.47	4,755.88	4,574.84	4,274.57	3,734.60	3,573.76	3,043.39
Return Over Dir. Expenses	796.04	196.34	427.73	587.04	675.08	785.31	820.07	1,046.98	1,350.19	1,909.41	2,250.19
Ovhd - Farm Insurance	32.64	82.73	66.51	57.88	38.97	35.35	31.11	28.27	24.32	18.75	8.49
Ovhd - Int On Intern. Debt	13.32	147.16	88.53	41.11	17.64	14.55	12.68	9.26	8.24	7.21	3.93
Ovhd - Int On Lng Term Debt	61.27	212.72	158.18	125.92	113.43	66.57	54.08	36.77	27.44	16.74	7.02
Ovhd - Machinery Depreciati	111.91	281.30	248.97	232.55	174.27	120.77	99.31	80.95	41.34	27.66	18.33
Ovhd - Building Depreciati	107.36	317.75	231.35	210.98	162.67	116.42	95.29	70.42	46.62	24.93	15.19
Total Overhead Expenses	501.37	715.78	659.13	622.27	576.63	533.75	492.50	437.30	326.73	251.90	185.87
Total Dir & Ovhd Expenses	5,018.44	6,457.23	6,023.55	5,452.29	5,309.06	5,160.86	4,935.10	4,751.70	4,321.05	3,979.75	3,544.76
Net Return	442.83	-488.18	-70.99	61.75	219.73	401.19	475.89	563.04	722.44	1,424.00	1,860.53
Labor & Management Charge	258.92	825.32	640.15	447.39	371.54	324.20	242.53	225.43	185.25	153.24	72.37
Net Return Over Lbr & Mgt	246.54	-1,139.78	-397.71	-347.88	-90.89	62.10	272.30	338.55	429.06	1,007.34	1,411.07
Direct Cost Of Prod/Unit	19.41	22.98	21.90	21.59	21.05	19.87	19.25	18.73	17.96	17.50	16.59
Dir & Ovhd Cost Of Prod/Unit	22.03	25.62	24.44	24.12	22.61	22.17	21.66	20.46	19.83	19.41	17.60
COP With Other Rev Adjust	19.48	24.31	22.29	22.01	20.66	20.12	19.32	18.75	18.01	16.85	15.55
Cost Of Prod With Lbr & Mgt	21.22	27.47	25.20	22.99	22.26	21.51	21.17	19.69	19.19	18.22	16.19
Average Number Of Head	187.0	48.0	77.0	103.0	120.0	139.5	219.0	244.0	345.0	548.0	825.0
Milk Produced Per Head	23,127	16,092	17,365	19,336	21,380	22,271	23,696	25,457	27,036	29,175	30,176
Total Milk Sold	4,441,380	1,037,952	1,675,556	2,004,791	2,528,995	3,461,343	4,631,211	6,737,359	8,033,978	14,854,417	22,587,043
Culling Percentage	29.1	13.4	21.8	23.7	25.2	27.7	30.9	32.8	37.7	40.6	45.8
Percent Of Barn Capacity	102.3	73.1	83.6	91.9	98.1	99.2	104.1	111.0	113.8	118.5	141.4
Feed Cost Per Cwt Of Milk	12.62	15.71	14.55	14.08	13.47	12.97	12.35	11.76	11.05	10.56	9.45
Feed Cost Per Head	2,909.83	3,986.59	3,643.03	3,444.33	3,359.49	2,968.52	2,879.41	2,719.18	2,334.41	2,123.75	1,948.08
Average Price/Cwt. Of Milk	21.01	19.72	20.08	20.50	20.69	20.86	21.06	21.65	22.42	24.45	25.18

How to use this chart:

Each row contains data from 35 Ohio Dairy Farms. The data is grouped by percentiles. For example, if we look at Total Feed Expense (line 3), the 3 farms with the highest feed costs per cow averaged \$3,986. This value is in the 10% column. The next 3 farms with the highest feed cost per cow averaged \$3,599 per cow which is in the 20% column. This process is continued up to the 100% column where the 3 farms with the lowest feed cost per cow averaged \$1,948 (note: these farms had at least some heifers custom raised). Each row is calculated independently, which is why you will see your farm's values in many different columns. Use this chart to identify strengths, areas of concern, and opportunities to improve compared to the performance of other Ohio dairy farms.





# 2013 Ohio Dairy Farm Business Analysis

Dairy Benchmark Report; Per Cwt. Of Milk; 35 Enterprises, Raised feed valued at cost of production

**RankEm**

My Farm	Group Median	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Products Sold Value	20.94	19.72	20.08	20.50	20.69	20.84	20.99	21.65	22.42	24.45	25.18
Gross Margin	23.40	21.12	21.89	22.07	22.25	22.98	23.50	23.75	24.52	26.62	28.65
Total Feed Expense	12.62	15.71	14.55	14.08	13.47	12.97	12.35	11.76	11.05	10.56	9.45
Breeding Fees	0.32	0.61	0.48	0.43	0.39	0.33	0.30	0.25	0.20	0.16	0.12
Veterinary	0.54	1.17	0.93	0.79	0.68	0.58	0.46	0.42	0.39	0.32	0.30
Supplies	0.55	1.26	0.84	0.77	0.66	0.56	0.52	0.45	0.36	0.30	0.16
DHIA	0.12	0.18	0.16	0.15	0.13	0.12	0.11	0.10	0.08	0.06	0.03
Fuel & Oil	0.47	0.91	0.69	0.63	0.56	0.49	0.44	0.36	0.29	0.27	0.21
Repairs	0.64	1.38	0.97	0.87	0.84	0.72	0.58	0.53	0.35	0.22	0.05
Custom Hire	0.23	1.14	0.92	0.59	0.40	0.27	0.20	0.12	0.10	0.07	0.03
Hired Labor	2.23	4.18	3.34	3.01	2.50	2.29	1.93	1.62	1.10	0.94	0.26
Utilities	0.45	0.91	0.64	0.58	0.55	0.50	0.45	0.39	0.36	0.27	0.25
Hauling And Trucking	0.54	0.84	0.77	0.74	0.67	0.59	0.53	0.50	0.41	0.34	0.15
Marketing	0.24	0.43	0.34	0.29	0.27	0.25	0.24	0.23	0.20	0.20	0.16
Bedding	0.30	0.67	0.64	0.55	0.49	0.37	0.23	0.21	0.15	0.10	0.02
Operating Interest	0.04	0.28	0.15	0.10	0.08	0.05	0.04	0.02	0.01	0.00	0.00
All Direct Repairs	0.57	0.00	0.87	1.02	0.87	0.83	0.66	0.56	0.52	0.32	0.21
Total Direct Expenses	19.41	22.98	21.90	21.59	21.05	19.87	19.25	18.73	17.96	17.50	16.59
Return Over Dir. Expenses	3.83	1.02	2.13	2.54	3.01	3.60	3.87	4.37	5.23	6.97	10.35
Ovhd - Farm Insurance	0.15	0.43	0.29	0.25	0.18	0.16	0.14	0.11	0.10	0.08	0.04
Ovhd - Int On Intern. Debt	0.06	0.54	0.36	0.27	0.09	0.06	0.06	0.04	0.03	0.03	0.02
Ovhd - Int On Lng Term Debt	0.25	1.77	0.71	0.58	0.52	0.31	0.25	0.16	0.11	0.07	0.02
Ovhd - Machinery Depreciati	0.49	1.37	1.07	0.92	0.68	0.57	0.45	0.37	0.16	0.15	0.09
Ovhd - Building Depreciati	0.52	1.51	1.05	0.80	0.72	0.58	0.40	0.32	0.16	0.15	0.05
Total Overhead Expenses	2.17	3.50	2.87	2.64	2.37	2.23	2.08	1.99	1.51	1.10	0.72
Total Dir & Ovhd Expenses	22.03	25.62	24.44	24.12	22.61	22.17	21.66	20.46	19.83	19.41	17.60
Net Return	2.08	-2.37	-0.37	0.25	1.03	1.67	2.15	2.41	2.76	5.36	8.17
Labor & Management Charge	1.12	4.27	2.94	2.07	1.81	1.20	1.07	0.89	0.79	0.66	0.35
Net Return Over Lbr & Mgt	0.89	-5.31	-2.04	-1.60	-0.39	0.31	0.96	1.38	1.72	4.46	6.26
Direct Cost Of Prod/Unit	19.41	22.98	21.90	21.59	21.05	19.87	19.25	18.73	17.96	17.50	16.59
Dir & Ovhd Cost Of Prod/Unit	22.03	25.62	24.44	24.12	22.61	22.17	21.66	20.46	19.83	19.41	17.60
COP With Other Rev Adjust	19.48	24.31	22.29	22.01	20.66	20.12	19.32	18.75	18.01	16.85	15.55
Cost Of Prod With Lbr & Mgt	21.22	27.47	25.20	22.99	22.26	21.51	21.17	19.69	19.19	18.22	16.19
Average Number Of Head	187.0	48.0	77.0	103.0	120.0	139.5	219.0	244.0	345.0	548.0	825.0
Milk Produced Per Head	23,127	16,092	17,365	19,336	21,380	22,271	23,696	25,457	27,036	29,175	30,176
Total Milk Sold	4,441,380	1,037,952	1,675,556	2,004,791	2,528,995	3,461,343	4,631,211	6,737,359	8,033,978	14,854,417	22,587,043
Culling Percentage	29.1	13.4	21.8	23.7	25.2	27.7	30.9	32.8	37.7	40.6	45.8
Percent Of Barn Capacity	102.3	73.1	83.6	91.9	98.1	99.2	104.1	111.0	113.8	118.5	141.4
Feed Cost Per Cwt Of Milk	12.62	15.71	14.55	14.08	13.47	12.97	12.35	11.76	11.05	10.56	9.45
Feed Cost Per Head	2,909.83	3,986.59	3,643.03	3,444.33	3,359.49	2,968.52	2,879.41	2,719.18	2,334.41	2,123.75	1,948.08
Average Price/Cwt. Of Milk	21.01	19.72	20.08	20.50	20.69	20.86	21.06	21.65	22.42	24.45	25.18

How to use this chart:

Each row contains data from 35 Ohio Dairy Farms. The data is grouped by percentiles. For example, if we look at Total Feed Expense (line 3), the 3 or 4 highest feed costs averaged \$15.71 per cwt. This value is in the 10% column. The next 3 or 4 highest feed costs are averaged together, and their average feed expense of \$14.55 is in the 20% column. This process is continued up to the 100% column where the 3 or 4 farms with the lowest feed costs per cwt. averaged \$9.45 (note: these farms had at least some heifers custom raised). Each row is calculated independently which is why you will see your farm's values in many different columns. Use this chart to identify strengths, areas of concern and opportunities to improve compared to the performance of other Ohio dairy farms.









