

2021 VT Organic Dairy Cost of Production by Cost Groups



	Low			Medium			High		
	Average	Min	Max	Average	Min	Max	Average	Min	Max
Farm Information									
Herd Size	98	55	173	71	50	90	70	30	190
Acres	419	130	700	339	75	484	271	75	899
Acres per cow	4.5	2.3	8.0	4.9	1.0	7.9	3.5	1.4	4.9
Fertilizer & seed expenses (\$/acre)	\$27	\$0	\$56	\$6	\$0	\$24	\$15	\$0	\$37
Purchased forage expenses (\$/cow)	\$173	\$0	\$966	\$170	\$0	\$788	\$253	\$0	\$803
Purchased forage expenses (\$/acre)	\$67	\$0	\$416	\$122	\$0	\$767	\$128	\$0	\$578
Milk Information									
Total milk sold (lbs/year)	1,881,839	767,944	3,359,600	944,787	705,146	1,586,336	859,955	292,425	2,281,971
Total milk sold (CWTs)	18,818	7,679	33,596	9,448	7,051	15,863	8,600	2,924	22,820
Total milk sold (CWT eq.)	22,372	10,183	38,627	10,813	7,991	17,463	9,727	3,425	25,593
Milk per cow (lbs/cow)	19,832	14,612	24,332	14,336	11,430	18,198	14,421	10,773	18,353
Milk per acre (lbs/acre)	\$4,935	\$2,265	\$8,114	\$3,697	\$1,533	\$10,646	\$4,305	\$2,190	\$10,123
Fat per cow (lbs/cow)	751	550	933	549	431	663	575	434	768
Fat per acre (lbs/acre)	193	88	310	158	98	419	162	106	351
Labor efficiency									
Full Time Equivalents (FTEs)*	3.1	1.9	4.3	2.4	1.5	3.4	2.6	1.0	3.8
Cows per FTE	33	17	67	31	21	48	30	14	68
Milk Sold per FTE (CWT eq. †)	6,913	2,562	16,271	4,377	2,719	7,812	4,079	2,341	7,458
Return to labor	\$63,036	\$36,965	\$141,903	\$27,559	\$13,874	\$41,682	\$14,452	-\$1,902	\$31,535
Labor earnings per hour	\$21.01	\$12.32	\$47.30	\$9.19	\$4.62	\$13.89	\$4.82	-\$0.63	\$10.51
Unpaid labor cost	\$47,217	\$40,000	\$74,400	\$50,171	\$40,000	\$80,000	\$59,633	\$40,000	\$80,000
Unpaid labor (hours)	5,084	3,380	8,136	5,552	3,150	8,788	5,691	3,000	10,556
Farm Income									
Milk price (\$/CWT)	\$32.57	\$31.12	\$34.49	\$33.05	\$30.37	\$35.98	\$35.07	\$29.37	\$39.38
Gross Milk Income	\$613,574	\$243,683	\$1,147,697	\$312,729	\$225,594	\$533,087	\$303,324	\$102,678	\$841,417
Gross Cull, Calf, & Livestock Sales	\$26,003	\$13,856	\$40,389	\$12,248	\$3,259	\$20,285	\$13,909	\$895	\$39,168
Gross Crop Sales	\$12,282	\$0	\$43,000	\$2,413	\$0	\$16,590	\$460	\$0	\$3,536
Other Income**	\$42,511	\$24,058	\$51,596	\$23,976	\$7,650	\$53,504	\$29,181	\$13,839	\$79,186
Total Gross Income	\$694,371	\$306,473	\$1,213,611	\$351,366	\$255,387	\$580,949	\$346,873	\$118,493	\$959,771
Farm Expenses (\$/CWT eq.) †									
Bedding	\$0.66	\$0.07	\$1.63	\$0.63	\$0.07	\$1.14	\$1.49	\$0.53	\$4.24
Breeding Fees	\$0.37	\$0.14	\$0.84	\$0.21	\$0.06	\$0.32	\$0.28	\$0.00	\$0.49
Custom Hire	\$0.41	\$0.00	\$1.93	\$0.41	\$0.00	\$0.95	\$1.52	\$0.00	\$6.13
Machine Rentals	\$0.17	\$0.00	\$1.05	\$0.00	\$0.00	\$0.02	\$0.13	\$0.00	\$1.02
Land Rentals	\$0.94	\$0.01	\$2.21	\$1.29	\$0.19	\$5.96	\$0.56	\$0.00	\$1.85
Supplies	\$1.52	\$0.85	\$2.39	\$1.92	\$1.39	\$3.01	\$1.70	\$1.24	\$3.35
Farm Insurance	\$0.61	\$0.09	\$0.99	\$0.91	\$0.00	\$1.42	\$0.96	\$0.70	\$1.48
Fuel, Gas and Oil	\$0.88	\$0.61	\$1.65	\$0.97	\$0.52	\$1.64	\$0.75	\$0.37	\$1.51
Hired Labor	\$2.88	\$0.35	\$4.61	\$2.61	\$0.36	\$6.47	\$2.37	\$0.00	\$4.84
Property Taxes	\$0.37	\$0.00	\$0.71	\$0.50	\$0.03	\$0.95	\$0.71	\$0.00	\$1.26
Purchased Forages	\$0.82	\$0.00	\$4.62	\$1.33	\$0.00	\$6.47	\$1.66	\$0.00	\$4.84
Purchased Grain	\$8.23	\$4.59	\$12.03	\$7.86	\$5.43	\$12.22	\$9.94	\$6.31	\$12.42
Purchased Minerals	\$2.41	\$1.01	\$4.49	\$2.38	\$1.78	\$4.72	\$2.06	\$0.97	\$4.20
Repairs	\$0.65	\$0.00	\$1.76	\$0.20	\$0.00	\$0.81	\$0.48	\$0.00	\$1.36
Seed & Fertilizer	\$0.76	\$0.19	\$1.28	\$1.43	\$1.09	\$1.97	\$1.40	\$1.12	\$1.73
Utilities	\$0.37	\$0.07	\$0.82	\$0.36	\$0.04	\$0.73	\$0.52	\$0.13	\$0.94
Veterinary & Medicine	\$0.34	\$0.07	\$0.61	\$0.46	\$0.34	\$0.63	\$0.53	\$0.29	\$0.81
Stop & Hauling	\$0.58	\$0.19	\$0.94	\$0.68	\$0.32	\$0.97	\$1.41	\$0.52	\$2.27
Other***	\$22.96	\$19.42	\$26.02	\$24.15	\$20.25	\$26.67	\$28.49	\$20.04	\$38.26
Total Cash Expense (\$/CWT eq.)	\$22.96	\$19.42	\$26.02	\$24.15	\$20.25	\$26.67	\$28.49	\$20.04	\$38.26
Farm Expenses (\$/cow)									
Bedding/cow	\$149	\$13	\$341	\$90	\$11	\$162	\$193	\$60	\$437
Breeding Fees/cow	\$79	\$29	\$157	\$31	\$9	\$48	\$41	\$0	\$69
Custom Hire/cow	\$94	\$0	\$404	\$65	\$0	\$157	\$200	\$0	\$826
Machine Rental/cow	\$37	\$0	\$234	\$0	\$0	\$3	\$18	\$0	\$137
Land Rental/cow	\$217	\$3	\$494	\$205	\$23	\$899	\$71	\$0	\$236
Dairy Supplies/cow	\$337	\$179	\$448	\$295	\$170	\$462	\$229	\$163	\$345
Farm Insurance/cow	\$142	\$18	\$287	\$140	\$0	\$226	\$132	\$94	\$196
Fuel, Gas and Oil/cow	\$197	\$136	\$346	\$151	\$75	\$251	\$105	\$43	\$192
Hired Labor/cow	\$649	\$79	\$1,331	\$397	\$51	\$993	\$344	\$0	\$813
Property Taxes/cow	\$80	\$0	\$135	\$78	\$4	\$137	\$99	\$0	\$191
Purchased Forages/cow	\$173	\$0	\$966	\$170	\$0	\$788	\$253	\$0	\$803
Purchased Grain/cow	\$1,890	\$857	\$3,122	\$1,203	\$782	\$1,799	\$1,426	\$721	\$2,060

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	Low			Medium			High		
	Average	Min	Max	Average	Min	Max	Average	Min	Max
Repairs/cow	\$549	\$224	\$1,048	\$383	\$223	\$936	\$269	\$162	\$433
Seed, Chem and Fert/cow	\$143	\$0	\$351	\$29	\$0	\$114	\$59	\$0	\$140
Utilities/cow	\$173	\$41	\$333	\$219	\$132	\$314	\$195	\$161	\$270
Veterinary & Medicine/cow	\$80	\$20	\$171	\$52	\$8	\$116	\$73	\$16	\$156
Milk Hauling/Stop Charges/cow	\$72	\$21	\$113	\$70	\$51	\$96	\$74	\$39	\$101
Other ***	\$370	\$238	\$654	\$272	\$204	\$385	\$471	\$300	\$736
Total Cash Expense (\$/cow)	\$5,230	\$4,406	\$7,056	\$3,705	\$3,233	\$4,967	\$3,984	\$2,290	\$4,877
Farm Expenses (\$/farm)									
Veterinary, Medicine	\$7,203	\$1,550	\$16,410	\$3,321	\$702	\$5,796	\$4,092	\$1,180	\$8,419
Dairy Supplies	\$30,695	\$19,362	\$43,000	\$20,459	\$12,400	\$29,820	\$16,173	\$5,166	\$42,430
Breeding Fees	\$6,885	\$2,556	\$14,097	\$2,329	\$544	\$4,254	\$2,305	\$0	\$3,741
Feed Purchased	\$216,413	\$46,699	\$409,491	\$100,106	\$51,109	\$158,291	\$118,561	\$21,628	\$321,129
Repairs	\$49,472	\$21,300	\$91,469	\$28,198	\$15,459	\$82,399	\$19,006	\$8,841	\$50,021
Seed, Chem, Fert	\$10,720	\$0	\$26,350	\$2,466	\$0	\$10,187	\$5,346	\$0	\$25,724
Fuel, Gas, and Oil	\$19,639	\$7,700	\$37,414	\$10,613	\$5,440	\$20,043	\$7,524	\$1,284	\$17,649
Utilities	\$18,727	\$2,240	\$42,400	\$14,842	\$9,668	\$20,174	\$13,206	\$5,004	\$32,675
Interest Paid -- not included									
Labor Hired	\$61,025	\$8,086	\$115,030	\$28,525	\$3,695	\$62,036	\$22,069	\$0	\$44,303
Rent, Lease and Hire	\$29,628	\$500	\$76,623	\$18,822	\$1,700	\$52,162	\$33,675	\$250	\$192,342
Property Taxes	\$8,097	\$0	\$13,310	\$5,619	\$250	\$10,228	\$5,989	\$0	\$10,421
Farm Insurance	\$13,896	\$1,000	\$25,500	\$9,496	\$0	\$15,123	\$8,824	\$2,964	\$17,830
Other Cash Expense***	\$35,069	\$16,497	\$72,111	\$18,795	\$12,679	\$22,310	\$32,453	\$8,996	\$77,623
Total Cash Expense (\$/farm)	\$507,469	\$240,114	\$781,408	\$263,593	\$161,843	\$437,103	\$289,222	\$68,688	\$835,125
Net									
Net Cash Income	\$186,901	\$66,358	\$432,203	\$87,773	\$40,993	\$143,846	\$57,651	-\$11,726	\$124,645
Inventory change	\$2,625	-\$63,729	\$99,350	-\$12,739	-\$34,273	\$6,699	-\$16,276	-\$42,777	\$5,329
Inventory adjustments- Feed	\$27,199	-\$4,817	\$155,100	\$6,559	-\$5,500	\$37,600	-\$2,649	-\$24,004	\$12,000
Supplies and other	\$0	\$0	\$0	-\$44	-\$2,000	\$1,694	\$488	\$0	\$3,900
Breeding livestock	\$8,743	-\$22,000	\$95,094	-\$261	-\$17,300	\$15,100	-\$1,884	-\$16,868	\$4,000
Income change	\$35,943	-\$4,817	\$133,100	\$6,826	-\$12,705	\$20,300	-\$4,045	-\$26,290	\$12,000
Machinery & Equipment	\$17,166	-\$70,650	\$116,250	\$2,383	-\$30,194	\$51,602	\$6,705	-\$37,500	\$59,930
Land and Buildings	\$24,407	-\$15,131	\$120,389	-\$1,776	-\$12,435	\$0	-\$1,566	-\$12,531	\$0
Other Adjustments	\$5,518	\$0	\$20,888	-\$500	-\$3,500	\$0	\$1,697	\$0	\$8,248
Expense change	-\$47,091	-\$144,063	\$65,083	-\$107	-\$51,602	\$30,194	-\$6,836	-\$59,930	\$37,500
Capital Purchases Minus Sales Adjustm	\$80,408	-\$600	\$313,736	\$19,671	\$0	\$74,000	\$19,066	\$0	\$69,800
4% Equity	\$61,096	\$12,291	\$119,390	\$37,832	\$13,934	\$75,311	\$32,347	\$11,397	\$67,319
Unpaid labor cost	\$47,217	\$40,000	\$74,400	\$50,171	\$40,000	\$80,000	\$59,633	\$40,000	\$80,000
Total Cost	\$649,099	\$306,752	\$1,110,471	\$371,161	\$289,254	\$574,813	\$393,433	\$141,643	\$993,170
Total Cost (\$/cow)	\$6,627	\$5,628	\$8,515	\$5,259	\$4,109	\$6,532	\$5,726	\$4,656	\$6,836
Total Cost (\$/CWT eq.)	\$29.43	\$25.86	\$30.74	\$34.48	\$32.92	\$36.41	\$41.00	\$38.81	\$45.21
Depreciation FM value	\$42,585	\$5,798	\$109,673	\$19,064	\$5,001	\$30,194	\$17,678	\$0	\$40,725
Capital Costs (\$/cow)	\$953	\$323	\$1,421	\$804	\$259	\$1,156	\$760	\$168	\$1,184
Capital Invested (\$/cow)	\$12,844	\$4,424	\$19,861	\$12,484	\$4,595	\$20,265	\$11,625	\$3,696	\$19,094
Net farm income from operations (NFII)	\$189,526	\$84,128	\$368,474	\$75,034	\$43,779	\$127,348	\$41,375	-\$6,397	\$97,816
Rate of Return on Assets (ROA)	10%	6%	16%	3%	-1%	7%	-4%	-16%	2%
Operating Profit Margin (OPM)	17%	10%	26%	6%	-5%	18%	-8%	-19%	8%
Asset Turnover Ratio (ATR)	63%	31%	127%	47%	27%	84%	46%	24%	91%

* Full time equivalent is 3000 hours per year of labor hours. Includes both paid and unpaid labor

** Other income includes government payments, co-op distributions, crop insurance proceeds, and small amounts of income from participation in workshops and events

† CWT eq. represents a hundredweight equivalent to adjust for dairy income other than milk. It is calculated by taking the income from sales of crops, calves, and other dairy income and

*** Other expenses include milk testing, accounting and legal fees, certification fees, and hoof trimming. In 2018 this category also included stop and hauling charges

‡ NFIFO is gross cash income - total farm expense + inventory change + depreciation and other capital adjustments