

Appendix table 1—Production characteristics of specialized dairy farms, by region, 1993

Item	Unit	Corn Belt	Northeast	Pacific	Southeast	Southern Plains	Upper Midwest	U. S.
Number of farms		17,259	26,702	5,536	856	2,018	45,351	97,721
Total acres operated	per farm	275	335	153	684	378	356	328
Total pasture acres used	per farm	54	51	50	236	266	32	49
Cow numbers	per farm	52	61	348	411	183	58	80
Milk produced	cwt per farm	7,732	9,741	60,701	59,653	26,481	9,048	12,735
Total labor used	hours per farm	4,437	4,847	8,138	16,677	8,249	4,402	4,928
Hired	hours per farm	954	1,185	4,358	13,517	3,739	1,029	1,412
Unpaid	hours per farm	3,484	3,662	3,780	3,160	4,511	3,373	3,516
Operator	hours per farm	2,310	2,142	2,653	2,328	3,352	2,274	2,289
Other	hours per farm	1,173	1,520	1,127	832	1,158	1,099	1,227
Total feed fed	1,000 lbs per farm	1,397	1,942	9,471	10,083	3,615	1,930	2,372
Homegrown	1,000 lbs per farm	1,077	1,578	2,154	2,739	667	1,621	1,533
Purchased	1,000 lbs per farm	320	364	7,318	7,344	2,949	309	839
Technology used								
Milking facilities								
Herringbone parlors	percent of capacity	40.33	26.61	61.23	74.31	59.02	13.10	29.64
Parallel parlors	percent of capacity	3.97	2.21	15.25	9.03	10.41	2.13	4.51
Polygon parlors	percent of capacity	0.00	0.00	1.28	0.00	0.00	0.24	0.26
Carousel parlors	percent of capacity	1.33	0.00	0.00	0.00	0.00	0.00	0.22
Other parlors	percent of capacity	12.62	5.16	20.10	2.08	16.97	2.60	7.45
Barns with pipeline	percent of capacity	27.38	48.88	2.13	14.58	13.59	73.76	48.14
Pail/buckets	percent of capacity	14.36	17.13	0.00	0.00	0.00	8.18	9.78
Automatic takeoffs	percent of farms	10.97	10.36	46.63	49.17	34.65	8.59	12.54
Udder washer	percent of farms	0.19	0.05	44.72	56.18	9.06	0.00	3.26
Computerized milking systems	percent of farms	3.37	0.20	4.30	10.16	0.00	1.33	1.60
Computerized feeding systems	percent of farms	14.38	4.50	5.50	14.57	0.00	4.50	6.30
Diversification								
Corn	acres harvested per farm	56	61	25	71	9	88	70
Barley	acres harvested per farm	0	1	1	0	0	3	2
Hay	acres harvested per farm	67	89	48	77	72	73	75
Oats	acres harvested per farm	6	4	0	3	0	14	9
Sorghum/milo	acres harvested per farm	0	0	0	30	8	1	1
Soybeans	acres harvested per farm	16	2	0	5	0	11	8
Wheat	acres harvested per farm	3	2	3	0	2	3	3
Other crops	acres harvested per farm	16	37	39	36	4	55	41
Replacement heifers sold	number per farm	1	2	5	5	3	3	3
Replacement heifers purchased	number per farm	1	1	25	18	22	1	3
Calves sold	number per farm	11	23	97	142	78	14	23
Milk cows sold	number per farm	1	1	15	0	2	1	2
Bulls sold	number per farm	0	1	11	1	1	0	1

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey.

Appendix table 2—Production characteristics of specialized dairy farms, by herd size, 1993

Item	Unit	Fewer than 60 cows	60-119 cows	120-299 cows	300 cows or more	All farms
Number of farms		59,499	26,305	9,346	2,571	97,721
Total acres operated	per farm	219	448	623	555	328
Total pasture acres used	per farm	33	64	82	129	49
Cow numbers	per farm	35	78	165	821	80
Milk produced	cwt per farm	5,222	11,748	27,865	141,705	12,735
Total labor used	hours per farm	3,789	5,043	8,189	18,272	4,928
Hired	hours per farm	385	1,633	3,667	14,736	1,412
Unpaid	hours per farm	3,404	3,410	4,522	3,535	3,516
Total feed fed	1,000 lbs per farm	1,058	2,437	5,013	22,538	2,372
Homegrown	1,000 lbs per farm	873	1,957	3,298	6,056	1,533
Purchased	1,000 lbs per farm	184	481	1,715	16,481	839
Technology used						
Milking facilities						
Herringbone parlors	percent of capacity	5.29	36.63	51.49	73.46	29.64
Parallel parlors	percent of capacity	4.59	3.59	4.57	6.62	4.51
Polygon parlors	percent of capacity	0.00	0.00	0.59	1.46	0.26
Carousel parlors	percent of capacity	0.51	0.00	0.00	0.00	0.22
Other parlors	percent of capacity	5.93	4.89	11.66	14.00	7.45
Barns with pipeline	percent of capacity	61.78	53.54	31.69	4.45	48.14
Pail/buckets	percent of capacity	21.90	1.35	0.00	0.00	9.78
Automatic takeoffs	percent of farms	2.01	15.39	52.63	81.24	12.54
Udder washer	percent of farms	0.03	1.26	10.87	70.69	3.26
Computerized milking systems	percent of farms	0.24	2.83	3.38	13.84	1.60
Computerized feeding systems	percent of farms	2.08	14.91	10.31	1.26	6.30
Diversification						
Corn	acres harvested per farm	44	88	165	140	70
Barley	acres harvested per farm	2	2	2	3	2
Hay	acres harvested per farm	54	104	116	103	75
Oats	acres harvested per farm	8	11	13	2	9
Sorghum/milo	acres harvested per farm	0	2	1	15	1
Soybeans	acres harvested per farm	8	6	19	15	8
Wheat	acres harvested per farm	2	3	6	10	3
Other crops	acres harvested per farm	24	52	110	67	41
Replacement heifers sold	number per farm	1	2	11	11	3
Replacement heifers purchased	number per farm	0	1	5	64	3
Calves sold	number per farm	10	22	45	257	23
Milk cows sold	number per farm	0	1	4	27	2
Bulls sold	number per farm	0	1	1	21	1

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 3—Efficiency and productivity of specialized dairy farms, by region, 1993

Item	Unit	Corn Belt	Northeast	Pacific	Southeast	Southern Plains	Upper Midwest	U. S.
Per cow								
Milk production	pounds	14,876	16,085	17,462	14,531	14,452	15,570	15,964
Value of milk sold	dollars	182,427	205,649	202,029	213,400	190,507	195,955	198,437
Total labor used	hours	85	80	23	41	45	76	62
Hired	hours	18	20	13	33	20	18	18
Unpaid	hours	67	60	11	8	25	58	44
Operator	hours	44	35	8	6	18	39	29
Other	hours	23	25	3	2	6	19	15
Total feed fed	pounds	26,877	32,065	27,247	24,561	19,730	33,204	29,740
Homegrown	pounds	20,716	26,054	6,196	6,671	3,638	27,890	19,221
Purchased	pounds	6,160	6,011	21,050	17,890	16,091	5,314	10,519
Machinery investment	dollars	1,673	1,400	266	538	702	1,880	1,242
Total investment	dollars	8,250	9,307	2,944	4,437	3,609	8,590	6,882
Per cwt of milk sold								
Value milk sold	dollars	12.87	13.33	11.74	14.98	13.30	12.89	12.77
Total labor used	hours	0.60	0.52	0.14	0.29	0.31	0.50	0.40
Hired	hours	0.13	0.13	0.07	0.23	0.14	0.12	0.11
Unpaid	hours	0.47	0.39	0.06	0.05	0.17	0.38	0.28
Operator	hours	0.31	0.23	0.04	0.04	0.13	0.26	0.18
Other	hours	0.16	0.16	0.02	0.01	0.04	0.12	0.10
Total feed fed	pounds	189.65	207.90	158.29	172.45	137.74	218.47	191.38
Homegrown	pounds	146.18	168.92	36.00	46.84	25.40	183.51	123.69
Purchased	pounds	43.47	38.97	122.29	125.61	112.34	34.97	67.69
Machinery investment	dollars	11.80	9.08	1.55	3.78	4.90	12.37	7.99
Total investment	dollars	58.22	60.34	17.11	31.15	25.19	56.52	44.29

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 4—Efficiency and productivity of specialized dairy farms, by herd size, 1993

Item	Unit	Fewer than 60 cows	60-119 cows	120-299 cows	300 cows or more	U.S.
Per cow						
Milk production	pounds	14,885	15,065	16,842	17,263	15,964
Value of milk sold	dollars	188,712	188,532	210,489	208,855	198,437
Total labor used	hours	108	65	49	22	62
Hired	hours	11	21	22	18	18
Unpaid	hours	97	44	27	4	44
Operator	hours	62	31	15	3	29
Other	hours	35	13	12	1	15
Total feed fed	pounds	30,146	31,253	30,302	27,456	29,740
Homegrown	pounds	24,896	25,088	19,936	7,378	19,221
Purchased	pounds	5,250	6,165	10,366	20,078	10,519
Machinery investment	dollars	1,846	1,626	1,186	311	1,242
Total investment	dollars	10,279	7,526	6,788	2,966	6,882
Per cwt of milk sold						
Value of milk sold	dollars	13.04	13.01	12.91	12.25	12.77
Total labor used	hours	0.75	0.45	0.30	0.13	0.40
Hired	hours	0.08	0.14	0.14	0.11	0.11
Unpaid	hours	0.67	0.30	0.17	0.03	0.28
Operator	hours	0.43	0.21	0.09	0.02	0.18
Other	hours	0.24	0.09	0.07	0.01	0.10
Total feed fed	pounds	208.30	215.60	185.90	161.00	191.38
Homegrown	pounds	172.02	173.07	122.31	43.26	123.69
Purchased	pounds	36.28	42.53	63.59	117.74	67.69
Machinery investment	dollars	12.76	11.22	7.28	1.82	7.99
Total investment	dollars	71.02	51.92	41.65	17.39	44.29

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 5—Balance sheet for specialized dairy farms, 1993-96

Item	1993	1994	1995	1996
Number of farms	125,408	115,271	107,458	96,823
<i>Dollars per farm</i>				
Farm assets	608,031	621,344	646,219	718,328
Current assets	79,689	92,952	96,900	97,814
Livestock inventory	26,764	25,501	28,996	33,165
Crop inventory	20,307	23,621	31,706	28,294
Purchased inputs	7,583	9,717	3,519	6,833
Cash invested in growing crops	480	630	704	808
Prepaid insurance	740	840	821	919
Other assets	23,815	32,642	31,155	27,796
Non-current assets	528,342	528,392	549,318	620,515
Investment in cooperatives	2,324	3,154	2,107	5,773
Land and buildings	350,366	321,278	356,180	406,160
Operators dwelling	45,459	44,703	48,199	54,646
Farm equipment	88,618	99,427	94,246	109,426
Breeding animals	87,034	104,532	96,785	99,156
Farm liabilities	115,878	126,449	137,349	146,181
Current liabilities	31,924	35,236	47,939	46,310
Notes payable within one year	13,349	13,223	27,992	25,274
Current portion of term debt	12,634	15,525	13,245	14,144
Accrued interest	3,298	3,599	3,919	4,179
Accounts payable	2,642	2,888	2,782	2,713
Noncurrent liabilities	83,954	91,214	89,410	99,871
Nonreal estate	23,563	32,999	24,228	24,386
Real estate	60,391	58,215	65,182	75,485
Farm equity	492,152	494,894	508,870	572,147
Debt/asset ratio	0.19	0.20	0.21	0.20

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA and 1996 Agricultural Resource Management Study, USDA.

Appendix table 6—Income statement for specialized dairy farms, 1993-96

Item	1993	1994	1995	1996
Number of farms	125,408	115,271	107,458	96,823
Dollars per farm				
Farm assets	608,031	621,344	646,219	718,328
Gross cash income	181,464	201,310	226,630	249,376
Livestock sales	166,733	185,207	210,331	233,266
Crop sales (incl. net CCC loans)	5,579	5,718	7,512	7,100
Government payments	4,035	2,784	2,407	2,477
Other farm-related income	5,118	7,601	6,380	6,533
Less: Cash expenses	139,474	160,144	176,506	193,503
Variable	117,918	136,310	150,014	166,271
Livestock purchases	509	843	559	742
Feed	52,598	61,716	70,809	80,773
Other livestock-related	9,127	7,792	9,467	9,017
Seed and plants	2,862	2,983	2,831	3,584
Fertilizer and chemicals	7,112	8,340	8,625	9,787
Labor	14,178	17,410	18,396	20,195
Fuels and oils	4,110	4,801	4,795	5,304
Repairs and maintenance	9,519	11,160	11,420	13,318
Machine-hire and custom work	7,695	7,788	8,277	8,346
Utilities	5,219	5,433	6,027	6,304
Other variable expenses	4,989	8,043	8,808	8,901
Fixed	21,556	23,833	26,492	27,233
Real estate and property taxes	3,391	3,707	3,698	3,982
Interest	9,594	10,718	13,078	13,214
Insurance premiums	2,958	3,358	3,284	3,675
Rent and lease payments	5,613	6,050	6,432	6,362
Equals: Net cash farm income	41,990	41,166	50,124	55,873
Less:				
Depreciation	16,397	20,214	20,716	23,399
Labor, non-cash benefits	726	896	1,216	906
Plus:				
Value of inventory change	4,145	6,113	1,859	3,087
Nonmoney income	5,034	5,134	5,149	6,043
Equals: Net farm income	34,047	31,304	35,200	40,698

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 7—Financial ratios for specialized dairy farms, Corn Belt, 1993-96

Item	1993	1994	1995	1996	t-statistics					
					93-94	93-95	93-96	94-95	94-96	95-96
Liquidity ratios										
Current	2.67	3.41	2.33	2.03	0.64	0.49	0.04	0.90	0.39	0.22
Quick	1.25	1.73	0.74	1.00	0.59	1.30	0.02	1.27	0.69	0.32
Farm business debt service coverage	1.55	1.68	1.30	1.06	0.23	0.53	0.04	0.62	1.13	0.52
Debt servicing	0.18	0.17	0.20	0.25	0.26	0.32	0.02	0.53	1.53	1.03
Times interest	2.33	2.11	1.74	0.83	0.12	0.46	0.10	0.18	0.72	0.73
Efficiency ratios										
Gross	0.76	0.76	0.80	0.81	0.04	0.78	0.01	0.68	1.09	0.24
Interest to gross cash income	0.05	0.05	0.05	0.07	0.50	0.65	0.01	0.12	1.33	1.23
Asset turnover	0.25	0.23	0.29	0.30	0.45	1.18	0.01	1.75*	1.18	0.08
Debt-burden	0.42	0.39	0.31	0.25	0.18	0.81	0.03	0.45	0.92	0.49
Solvency ratios										
Debt to assets	0.14	0.14	0.19	0.23	0.01	1.41	0.02	1.21	1.68*	0.68
Debt to equity	0.16	0.16	0.24	0.29	0.01	1.37	0.03	1.23	1.51	0.59
Profitability ratios										
Rate of return on assets										
Current income	0.03	0.03	0.03	0.02	0.14	0.02	0.00	0.09	0.42	0.48
Rate of return on equity										
Current income	0.02	0.02	0.01	0.00	0.16	0.24	0.01	0.09	0.70	0.57
Profit margin	0.18	0.18	0.16	0.14	0.08	0.28	0.01	0.27	0.66	0.40
Economic profit margin	-0.01	0.03	0.02	0.00	0.67	0.77	0.00	0.01	0.35	0.37

* significantly different at the 10-percent level.

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 8—Financial ratios for specialized dairy farms, Northeast, 1993-96

Item	1993	1994	1995	1996	t-statistics					
					93-94	93-95	93-96	94-95	94-96	95-96
Liquidity ratios										
Current	4.04	4.58	na	3.86	0.70	na	0.01	na	0.75	na
Quick	1.43	2.55	na	1.82	2.63**	na	0.03	na	0.71	na
Farm business debt service coverage	2.03	1.84	na	1.88	0.80	na	0.01	na	0.11	na
Debt servicing	0.14	0.14	na	0.16	0.07	na	0.01	na	0.82	na
Times interest	2.58	1.47	na	1.19	1.75*	na	0.09	na	0.33	na
Efficiency ratios										
Gross	0.77	0.79	na	0.77	1.19	na	0.00	na	0.59	na
Interest to gross cash income	0.05	0.05	na	0.07	0.19	na	0.01	na	0.73	na
Asset turnover	0.23	0.27	na	0.30	1.58	na	0.01	na	0.63	na
Debt-burden	0.38	0.39	na	0.37	0.06	na	0.00	na	0.19	na
Solvency ratios										
Debt to assets	0.14	0.15	na	0.18	0.23	na	0.01	na	0.78	na
Debt to equity	0.16	0.17	na	0.22	0.23	na	0.01	na	0.79	na
Profitability ratios										
Rate of return on assets										
Current income	0.03	0.02	na	0.03	1.22	na	0.00	na	0.29	na
Rate of return on equity										
Current income	0.03	0.01	na	0.01	1.48	na	0.01	na	0.02	na
Profit margin	0.21	0.15	na	0.17	2.24**	na	0.01	na	0.32	na
Economic profit margin	0.03	0.02	na	0.05	0.31	na	0.01	na	0.93	na

na = not available, legal disclosure edit required.

*significantly different at the 10-percent level.

**significantly different at the 5-percent level.

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 9—Financial ratios for specialized dairy farms, Pacific, 1993-96

Item	1993	1994	1995	1996	t-statistics					
					93-94	93-95	93-96	94-95	94-96	95-96
Liquidity ratios										
Current	2.43	1.08	1.78	1.60	3.19**	1.32	0.05	1.80*	2.13**	0.51
Quick	0.83	0.73	0.62	0.76	0.41	1.06	0.01	0.56	0.14	1.10
Farm business debt service coverage	1.30	0.61	0.78	0.80	2.72**	1.95*	0.04	1.03	0.78	0.08
Debt servicing	0.20	0.29	0.28	0.27	1.79*	1.73*	0.02	0.09	0.26	0.19
Times interest	2.89	1.29	0.17	1.47	1.69*	3.23**	0.08	1.61	0.13	0.94
Efficiency ratios										
Gross	0.78	0.88	0.85	0.83	3.03**	2.20**	0.01	0.93	1.32	0.58
Interest to gross cash income	0.04	0.05	0.07	0.04	0.98	1.00	0.00	0.71	1.90*	1.18
Asset turnover	0.60	0.54	0.57	0.55	0.87	0.51	0.01	0.44	0.13	0.41
Debt-burden	0.45	0.17	0.31	0.35	3.32**	1.45	0.01	1.99**	2.47**	0.45
Solvency ratios										
Debt to assets	0.29	0.38	0.27	0.27	1.51	0.33	0.00	1.91*	1.90*	0.09
Debt to equity	0.41	0.62	0.38	0.37	1.54	0.32	0.01	1.93*	1.95*	0.09
Profitability ratios										
Rate of return on assets										
Current income	0.06	0.03	0.01	0.02	1.73*	2.57**	0.02	0.87	0.15	0.30
Rate of return on equity										
Current income	0.05	0.00	-0.04	0.00	1.80*	2.69**	0.02	1.20	0.08	0.86
Profit margin	0.18	0.12	0.09	0.11	1.49	2.57**	0.02	1.06	0.23	0.36
Economic profit margin	0.15	0.09	0.06	0.08	1.33	2.56**	0.02	1.07	0.25	0.44

* significantly different at the 10-percent level.

** significantly different at the 5-percent level.

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 10—Financial ratios for specialized dairy farms, Southeast, 1993-96

Item	1993	1994	1995	1996	t-statistics					
					93-94	93-95	93-96	94-95	94-96	95-96
Liquidity ratios										
Current	3.37	na	2.44	na	na	1.02	na	na	na	na
Quick	1.51	na	0.73	na	na	1.84*	na	na	na	na
Farm business debt service coverage	1.83	na	1.13	na	na	1.36	na	na	na	na
Debt servicing	0.12	na	0.16	na	na	1.11	na	na	na	na
Times interest	3.96	na	2.36	na	na	0.87	na	na	na	na
Efficiency ratios										
Gross	0.81	na	0.84	na	na	0.80	na	na	na	na
Interest to gross cash income	0.03	na	0.03	na	na	0.89	na	na	na	na
Asset turnover	0.46	na	0.43	na	na	0.33	na	na	na	na
Debt-burden	0.51	na	0.32	na	na	1.32	na	na	na	na
Solvency ratios										
Debt to assets	0.17	na	0.20	na	na	0.80	na	na	na	na
Debt to equity	0.20	na	0.26	na	na	0.80	na	na	na	na
Profitability ratios										
Rate of return on assets										
Current income	0.05	na	0.01	na	na	1.33	na	na	na	na
Rate of return on equity										
Current income	0.04	na	0.00	na	na	1.24	na	na	na	na
Profit margin	0.18	na	0.11	na	na	1.42	na	na	na	na
Economic profit margin	0.13	na	0.05	na	na	1.43	na	na	na	na

na = not available, legal disclosure edit required.

* significantly different at the 10-percent level.

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 11—Financial ratios for specialized dairy farms, Southern Plains, 1993-96

Item	1993	1994	1995	1996	t-statistics					
					93-94	93-95	93-96	94-95	94-96	95-96
Liquidity ratios										
Current	1.49	na	1.44	1.55	na	0.05	0.01	na	na	0.15
Quick	0.62	na	0.43	0.83	na	0.49	0.03	na	na	1.28
Farm business debt service coverage	0.39	na	0.93	1.25	na	1.08	0.14	na	na	0.46
Debt servicing	0.26	na	0.25	0.21	na	0.34	0.01	na	na	0.33
Times interest	3.33	na	0.74	4.06	na	0.57	0.04	na	na	1.22
Efficiency ratios										
Gross	0.93	na	0.82	0.77	na	1.75*	0.02	na	na	0.94
Interest to gross cash income	0.04	na	0.04	0.04	na	1.27	0.00	na	na	0.16
Asset turnover	0.35	na	0.60	0.48	na	1.95*	0.02	na	na	0.89
Debt-burden	0.05	na	0.44	0.57	na	1.80*	0.25	na	na	0.47
Solvency ratios										
Debt to assets	0.52	na	0.25	0.20	na	2.34**	0.04	na	na	0.61
Debt to equity	1.09	na	0.33	0.25	na	3.05**	0.08	na	na	0.61
Profitability ratios										
Rate of return on assets										
Current income	0.03	na	0.01	0.05	na	0.36	0.01	na	na	1.05
Rate of return on equity										
Current income	0.04	na	-0.03	0.05	na	0.69	0.00	na	na	1.35
Profit margin	0.17	na	0.08	0.18	na	0.53	0.13	na	na	0.60
Economic profit margin	0.12	na	0.04	0.14	na	0.49	0.30	na	na	1.02

na = not available, legal disclosure edit required.

*significantly different at the 10-percent level.

**significantly different at the 5-percent level.

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 12—Financial ratios for specialized dairy farms, Upper Midwest, 1993-96

Item	1993	1994	1995	1996	t-statistics					
					93-94	93-95	93-96	94-95	94-96	95-96
Liquidity ratios										
Current	2.33	3.00	2.11	1.91	1.57	0.69	0.03	2.12**	2.45**	0.57
Quick	0.95	1.10	0.66	0.48	0.65	1.66*	0.05	2.16**	3.28**	1.45
Farm business debt service coverage	1.58	1.59	1.32	1.42	0.05	1.49	0.01	1.29	0.66	0.43
Debt servicing	0.21	0.21	0.25	0.23	0.05	1.77*	0.00	1.52	0.52	0.63
Times interest	1.47	1.61	1.90	1.67	0.25	0.85	0.02	0.48	0.07	0.29
Efficiency ratios										
Gross	0.74	0.73	0.73	0.73	0.31	0.30	0.00	0.06	0.00	0.04
Interest to gross cash income	0.07	0.07	0.07	0.06	0.32	0.19	0.00	0.15	0.53	0.60
Asset turnover	0.26	0.27	0.29	0.31	0.54	1.74*	0.01	0.85	0.44	0.24
Debt-burden	0.36	0.35	0.34	0.40	0.20	0.33	0.01	0.11	0.25	0.28
Solvency ratios										
Debt to assets	0.19	0.21	0.23	0.20	0.67	1.49	0.00	0.56	0.35	0.87
Debt to equity	0.24	0.27	0.30	0.25	0.65	1.47	0.00	0.55	0.36	0.96
Profitability ratios										
Rate of return on assets										
Current income	0.04	0.04	0.05	0.05	0.25	1.23	0.00	0.72	0.09	0.29
Rate of return on equity										
Current income	0.02	0.03	0.03	0.02	0.29	1.11	0.00	0.61	0.31	0.74
Profit margin	0.20	0.20	0.22	0.18	0.12	0.81	0.00	0.52	0.55	1.08
Economic margin profits	0.05	0.08	0.11	0.06	0.87	2.25**	0.00	0.89	0.47	1.45

* significantly different at the 10-percent level.

** significantly different at the 5-percent level.

Source: Compiled by Economic Research Service from 1993-95 Farm Costs and Returns Surveys, USDA, and 1996 Agricultural Resource Management Study, USDA.

Appendix table 13—Common size income statement for specialized dairy farms, by region, 1993

Item	Corn Belt	Northeast	Pacific	Southeast	Southern Plains	Upper Midwest	U. S.
	Percent						
Sales	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Livestock	95.91	98.08	99.72	99.32	98.62	97.04	97.99
Crop (incl. net CCC loans)	4.09	1.92	0.28	0.68	1.38	2.96	2.01
Cash expenses	80.28	78.08	79.71	86.65	78.38	83.65	81.04
Variable	68.11	66.28	70.95	79.61	72.10	66.02	68.45
Livestock purchases	0.85	0.45	0.00	0.48	0.18	0.19	0.28
Feed	26.66	24.47	46.06	44.17	45.79	22.12	31.26
Other livestock-related	6.30	7.53	5.09	6.43	4.25	7.31	6.50
Seed and plants	2.22	1.84	0.27	0.39	0.78	2.86	1.71
Fertilizer and chemicals	6.10	4.69	0.66	1.98	1.35	5.87	3.95
Labor	6.19	8.06	8.39	13.01	6.91	7.89	8.06
Fuels and oils	3.01	2.63	0.76	1.06	1.22	3.13	2.23
Repairs and maintenance	7.06	6.83	2.30	3.94	3.00	7.70	5.69
Machine-hire and custom work	4.06	4.56	3.79	4.56	5.10	2.70	3.70
Utilities	2.84	3.27	2.41	1.68	2.54	3.28	2.90
Other variable expenses	2.82	1.97	1.22	1.91	0.99	2.98	2.17
Fixed	12.17	11.79	8.76	7.03	6.28	17.62	12.58
Real estate and property taxes	1.47	2.87	0.74	1.26	0.44	3.43	2.19
Interest	5.14	5.04	4.49	3.57	3.82	7.87	5.75
Insurance premiums	1.67	1.96	0.77	1.59	0.64	2.40	1.70
Rent and lease payments	3.89	1.92	2.77	0.61	1.38	3.92	2.95
Net cash farm income	26.29	25.93	23.06	16.32	22.45	23.31	23.75
Depreciation	12.24	10.68	7.57	6.51	8.50	12.31	10.32
Labor, non-cash benefits	0.40	0.49	0.29	0.92	0.94	0.23	0.38
Value of inventory change	0.71	3.23	1.05	9.52	1.66	0.21	1.59
Nonmoney income	4.23	3.94	0.79	0.62	1.12	3.61	2.78
Net farm income	18.60	21.94	17.03	19.02	15.80	14.58	17.42

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 14—Common size income statement for specialized dairy farms, by region, 1996

Item	Corn Belt	Northeast	Pacific	Southeast	Southern Plains	Upper Midwest	U. S.
	Percent						
Sales	100.00	100.00	100.00	na	100.00	100.00	100.00
Livestock	93.22	98.02	98.29	na	99.85	95.22	97.55
Crop (incl. net CCC loans)	6.78	1.98	1.71	na	0.15	4.78	2.45
Cash expenses	84.71	80.31	84.57	na	84.35	78.35	81.27
Variable	72.96	68.61	76.41	na	77.36	64.06	72.00
Livestock purchases	0.01	0.65	0.42	na	0.17	0.21	0.62
Feed	29.43	28.27	48.86	na	47.99	21.29	37.66
Other livestock-related	5.11	5.38	3.14	na	1.99	5.22	3.89
Seed and plants	2.37	1.62	0.41	na	0.46	2.44	1.07
Fertilizer and chemicals	6.70	4.40	1.34	na	2.81	6.49	3.17
Labor	8.97	11.02	9.92	na	10.08	9.19	10.26
Fuels and oils	2.48	2.28	0.96	na	1.57	2.71	1.70
Repairs and maintenance	6.23	6.01	3.07	na	2.88	7.30	4.59
Machine-hire and custom work	5.31	3.02	3.18	na	4.31	2.61	3.49
Utilities	2.23	2.50	2.78	na	2.58	2.54	2.42
Other variable expenses	4.12	3.45	2.33	na	2.49	4.08	3.14
Fixed	11.75	11.71	8.16	na	7.00	14.29	9.27
Real estate and property taxes	1.32	1.91	0.59	na	0.62	1.87	1.01
Interest	5.47	5.76	3.96	na	4.30	6.81	4.50
Insurance premiums	1.38	1.59	1.31	na	1.01	1.86	1.31
Rent and lease payments	3.57	2.44	2.30	na	1.07	3.74	2.45
Net cash farm income	19.21	22.92	18.61	na	18.63	26.55	21.94
Depreciation	10.53	10.88	7.14	na	6.31	12.05	8.52
Labor, non-cash benefits	0.63	0.53	0.52	na	0.51	0.23	0.44
Value of inventory change	-0.77	2.53	1.43	na	-1.01	0.69	1.55
Nonmoney income	2.97	2.05	0.63	na	0.77	2.46	1.27
Net farm income	10.25	16.10	13.01	na	11.58	17.41	15.80

na = not available, legal disclosure edit required.

Source: Compiled by Economic Research Service from 1996 Agricultural Resource Management Study, USDA.

Appendix table 15—Common size balance sheet for specialized dairy farms, by region, 1993

Item	Corn Belt	Northeast	Pacific	Southeast	Southern Plains	Upper Midwest	U. S.
	Percent						
Farm assets	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Current assets	10.86	10.46	24.60	18.50	9.06	10.60	12.52
Livestock inventory	2.11	2.68	9.48	8.96	1.19	2.63	3.57
Crop inventory	4.01	3.62	5.16	2.15	2.01	4.05	3.96
Purchased inputs	0.79	0.94	2.57	1.35	1.12	0.95	1.14
Cash invested in growing crops	0.03	0.12	0.14	0.12	0.02	0.05	0.08
Prepaid insurance	0.10	0.11	0.12	0.17	0.09	0.15	0.12
Other assets	3.82	3.00	7.12	5.75	4.64	2.78	3.65
Non-current assets	89.14	89.54	75.40	81.50	90.94	89.40	87.48
Investment in cooperatives	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Land and buildings	57.01	64.47	36.70	52.37	43.37	55.29	55.38
Operator's dwelling	9.97	7.65	4.79	2.86	7.19	7.53	7.40
Farm equipment	18.07	13.47	6.81	9.88	17.68	19.56	15.78
Breeding animals	13.98	11.15	30.99	18.75	29.31	14.21	15.90
Farm liabilities	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Current liabilities	27.95	19.82	37.27	28.09	25.45	22.83	26.02
Notes payable within one year	12.24	2.13	18.59	10.21	7.98	6.59	8.97
Current portion of term debt	10.47	12.15	13.85	13.11	13.33	10.74	11.76
Accrued interest	2.84	2.83	2.86	2.86	2.88	2.84	2.84
Accounts payable	2.40	2.70	1.97	1.92	1.26	2.67	2.44
Noncurrent liabilities	72.05	80.18	62.73	71.91	74.55	77.17	73.98
Nonreal estate	18.69	22.84	35.73	29.59	29.61	18.06	23.35
Real estate	53.36	57.35	27.00	42.32	44.94	59.11	50.63

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 16—Common size balance sheet for specialized dairy farms, by region, 1996

Item	Corn Belt	Northeast	Pacific	Southeast	Southern Plains	Upper Midwest	U. S.
	Percent						
Farm assets	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Current assets	14.82	15.84	21.94	na	19.13	13.86	16.47
Livestock inventory	1.42	3.63	9.30	na	6.84	3.59	5.62
Crop inventory	4.84	5.48	2.95	na	2.03	6.24	4.14
Purchased inputs	0.70	0.72	2.49	na	0.59	1.30	1.46
Cash invested in growing crops	0.16	0.08	0.11	na	0.16	0.15	0.12
Prepaid insurance	0.09	0.15	0.19	na	0.11	0.15	0.15
Other assets	7.61	5.78	6.89	na	9.40	2.44	4.97
Non-current assets	85.18	84.16	78.06	na	80.87	86.14	83.53
Investment in cooperatives	0.00	0.01	0.01	na	0.01	0.01	0.01
Land and buildings	55.59	53.30	48.11	na	49.81	51.94	51.76
Operators dwelling	6.16	5.47	3.01	na	3.25	6.90	4.81
Farm equipment	15.05	15.26	7.12	na	11.77	18.60	12.90
Breeding animals	14.12	14.77	21.50	na	18.68	14.38	17.91
Farm liabilities	100.00	100.00	100.00	na	100.00	100.00	100.00
Current liabilities	25.21	22.01	49.79	na	50.43	28.95	36.42
Notes payable within one year	11.53	6.45	36.70	na	37.17	13.82	22.16
Current portion of term debt	8.89	10.88	8.57	na	9.45	10.53	9.62
Accrued interest	2.86	2.86	2.86	na	2.89	2.86	2.86
Accounts payable	1.94	1.82	1.66	na	0.92	1.73	1.79
Noncurrent liabilities	74.79	77.99	50.21	na	49.57	71.05	63.58
Nonreal estate	11.26	18.38	18.28	na	22.08	19.28	18.05
Real estate	63.52	59.61	31.93	na	27.50	51.77	45.53

na = not available, legal disclosure edit required.

Source: Compiled by Economic Research Service from 1996 Agricultural Resource Management Study, USDA.

Appendix table 17—Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, 1993 1/

Item	Economic size of farm				
	\$50,000- \$99,999	\$100,000- \$249,999	\$250,000 \$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	19,988	30,087	9,890	5,548	79,528
Percent of farms	67.88	61.95	76.83	71.49	61.85
For those using production strategies, percent that used:					
Stable income	29.68	18.05	27.29	18.12	22.08
Diversification	18.70	8.57	36.56	13.11	14.65
Custom/contract inputs	10.77	17.33	2.11	10.28	10.20
Insurance	10.37	22.86	17.99	6.92	17.70
Government programs	20.77	30.48	42.62	36.14	27.55
Leased livestock	0.83	1.00	0.00	5.08	1.03
Leased land	19.65	26.87	25.56	35.22	23.46
Share rent land	7.68	3.75	1.30	0.46	4.04
Leased equipment	4.44	4.62	0.37	3.58	3.00
Nonfarm use of land	0.00	0.50	0.00	0.00	0.84
Other	22.95	10.50	19.43	16.11	13.68
Financial strategies					
Number of farms	14,811	34,108	10,336	6,000	72,108
Percent of farms	50.30	70.23	80.30	77.31	65.50
For those using financial strategies, percent that used:					
Open credit lines	19.83	38.24	61.88	50.51	31.61
Maintain equity in cash	19.60	49.35	32.31	56.63	31.05
Match loan maturity with sales	15.58	12.49	41.40	30.76	14.40
Renegotiated loans	14.37	20.71	34.43	26.11	17.12
Other	18.38	11.47	8.55	0.98	11.71
Marketing strategies					
Number of farms	16,795	29,532	8,651	5,239	67,529
Percent of farms	57.03	60.81	67.21	67.50	52.26
For those using marketing strategies, percent that used:					
Hedging	0.00	0.62	8.14	1.97	1.81
Contract sale of product	15.42	15.99	5.14	30.77	12.53
Spread sales	43.57	39.89	57.42	47.96	38.53
Contract sales	14.33	24.28	24.91	50.07	17.88
Other	30.08	21.44	34.00	16.54	20.25

1/ Legal disclosure edit required for economic size of less than \$50,000 in gross farm income.

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA

Appendix table 18—Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, Corn Belt, 1993

Item	Economic size of farm				
	\$50,000- \$99,999	\$100,000- \$249,999	\$250,000 \$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	5,070	1,997	511	173	7,750
Percent of farms	55.22	49.75	46.79	100.00	45.22
For those using production strategies, percent that used:					
Stable income	28.12	36.63	0.00	0.00	23.64
Diversification	0.00	8.38	46.79	32.47	5.27
Custom/contract inputs	14.70	0.00	0.00	0.00	7.88
Insurance	3.48	25.35	44.61	0.00	10.64
Government programs	33.89	2.90	44.61	100.00	22.68
Leased livestock	2.30	0.00	0.00	0.00	1.23
Leased land	12.39	13.14	0.00	32.47	10.04
Share rent land	24.64	0.00	0.00	0.00	13.20
Leased equipment	0.00	0.00	0.00	0.00	0.00
Nonfarm use of land	0.00	0.00	0.00	0.00	0.00
Other	17.84	28.23	0.00	25.18	16.42
Financial strategies					
Number of farms	5,070	2,675	604	173	8,522
Percent of farms	55.22	66.63	55.39	100.00	49.72
For those using financial strategies, percent that used:					
Open credit lines	15.88	30.21	53.21	100.00	19.98
Maintain equity in cash	5.78	42.43	25.67	32.47	15.00
Match loan maturity with sales	27.10	29.90	30.66	0.00	23.47
Renegotiated loans	3.48	36.41	0.00	0.00	10.39
Other	39.34	15.11	0.00	0.00	24.61
Marketing strategies					
Number of farms	7,888	1,820	811	130	10,649
Percent of farms	85.92	45.32	74.33	74.82	62.13
For those using marketing strategies, percent that used:					
Hedging	0.00	0.00	0.00	0.00	0.00
Contract sale of product	30.70	36.63	0.00	74.82	25.78
Spread sales	55.22	30.21	74.33	32.47	41.71
Contract sales	0.84	8.38	44.61	42.35	5.68
Other	41.64	23.81	27.54	32.47	29.96

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 19—Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, Northeast, 1993

Item	Economic size of farm				
	\$50,000- \$99,999	\$100,000- \$249,999	\$250,000 \$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	4,720	8,095	1,099	1,017	18,464
Percent of farms	67.96	83.82	69.09	94.05	80.00
For those using production strategies, percent that used:					
Stable income	17.60	29.10	0.82	5.95	33.12
Diversification	15.97	14.42	1.18	0.00	26.23
Custom/contract inputs	5.81	30.98	0.00	0.00	14.71
Insurance	4.64	3.59	0.00	0.00	2.90
Government programs	17.60	3.42	0.00	88.11	10.86
Leased livestock	0.00	0.00	0.00	0.00	0.00
Leased land	8.13	65.04	30.09	82.34	35.59
Share rent land	0.00	6.80	0.00	0.00	2.85
Leased equipment	18.82	0.20	0.00	10.06	6.22
Nonfarm use of land	0.00	0.00	0.00	0.00	0.00
Other	18.29	17.39	37.00	2.57	15.45
Financial strategies					
Number of farms	3,763	7,960	1,079	1,017	17,351
Percent of farms	54.17	82.42	67.83	94.05	75.18
For those using financial strategies, percent that used:					
Open credit lines	17.80	51.40	37.73	94.05	49.18
Maintain equity in cash	26.26	71.32	37.73	68.03	43.54
Match loan maturity with sales	4.43	8.29	36.92	67.29	10.50
Renegotiated loans	15.97	16.29	0.82	10.06	12.15
Other	5.81	11.22	30.09	21.74	9.53
Marketing strategies					
Number of farms	1,198	7,360	480	963	13,533
Percent of farms	17.25	76.21	30.18	89.02	58.64
For those using marketing strategies, percent that used:					
Hedging	0.00	0.00	0.00	0.00	0.00
Contract sale of product	4.65	12.47	0.09	0.00	6.62
Spread sales	10.29	60.88	0.00	87.37	47.97
Contract sales	2.85	52.19	0.00	88.11	26.82
Other	6.96	17.85	30.09	6.68	11.95

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 20—Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, Pacific, 1993

Item	Economic size of farm				
	\$50,000- \$99,999	\$100,000- \$249,999	\$250,000 \$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	0	0	15	1,806	2,347
Percent of farms	0.00	0.00	4.04	67.07	45.76
For those using production strategies, percent that used:					
Stable income	0.00	0.00	0.00	23.63	12.41
Diversification	0.00	0.00	0.00	14.64	7.69
Custom/contract inputs	0.00	0.00	0.00	12.99	17.07
Insurance	0.00	0.00	0.00	0.00	0.00
Government programs	0.00	0.00	0.00	1.72	0.90
Leased livestock	0.00	0.00	0.00	14.64	7.69
Leased land	0.00	0.00	0.00	18.67	20.05
Share rent land	0.00	0.00	0.00	0.00	0.00
Leased equipment	0.00	0.00	0.00	0.00	0.00
Nonfarm use of land	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	4.04	30.46	16.29
Financial strategies					
Number of farms	49	510	172	2,133	2,864
Percent of farms	100.00	34.24	46.30	79.19	55.83
For those using financial strategies, percent that used:					
Open credit lines	100.00	30.51	27.03	57.67	42.05
Maintain equity in cash	100.00	0.00	0.00	53.26	28.92
Match loan maturity with sales	0.00	0.00	19.26	30.59	17.46
Renegotiated loans	0.00	3.74	4.04	47.53	26.34
Other	0.00	0.00	15.84	19.52	11.40
Marketing strategies					
Number of farms	49	355	172	1,187	1,762
Percent of farms	100.00	23.81	46.30	44.06	34.35
For those using marketing strategies, percent that used:					
Hedging	0.00	20.07	0.00	0.87	6.29
Contract sale of product	0.00	3.74	27.03	43.19	25.72
Spread sales	100.00	3.74	31.07	27.63	18.79
Contract sales	0.00	0.00	15.84	39.75	22.02
Other	0.00	0.00	4.04	10.41	5.76

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 21—Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, Southeast, 1993

Item	Economic size of farm				
	\$50,000- \$99,999	\$100,000- \$249,999	\$250,000 \$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	0	223	74	63	360
Percent of farms	0.00	88.85	50.00	17.26	47.06
For those using production strategies, percent that used:					
Stable income	0.00	43.56	0.00	0.00	14.31
Diversification	0.00	43.56	0.00	0.00	14.31
Custom/contract inputs	0.00	43.56	0.00	0.00	14.31
Insurance	0.00	45.29	0.00	0.00	14.88
Government programs	0.00	45.29	0.00	17.26	23.15
Leased livestock	0.00	100.00	100.00	100.00	100.00
Leased land	0.00	0.00	0.00	17.26	8.27
Share rent land	0.00	100.00	100.00	100.00	100.00
Leased equipment	0.00	0.00	0.00	8.63	4.14
Nonfarm use of land	0.00	100.00	100.00	100.00	100.00
Other	0.00	0.00	50.00	0.00	9.61
Financial strategies					
Number of farms	0	223	147	32	402
Percent of farms	0	88.85	100.00	8.63	52.53
For those using financial strategies, percent that used:					
Open credit lines	0.00	88.85	0.00	8.63	33.32
Maintain equity in cash	0.00	0.00	50.00	0.00	9.61
Match loan maturity with sales	0.00	0.00	50.00	0.00	9.61
Renegotiated loans	0.00	45.29	50.00	8.63	28.62
Other	0.00	100.00	100.00	100.00	100.00
Marketing strategies					
Number of farms	0	223	74	63	361
Percent of farms	0	88.85	50.00	17.26	47.06
For those using marketing strategies, percent that used:					
Hedging	0.00	100.00	100.00	100.00	100.00
Contract sale of product	0.00	43.56	50.00	8.63	28.05
Spread sales	0.00	0.00	50.00	8.63	13.74
Contract sales	0.00	0.00	0.00	8.63	4.14
Other	0.00	88.85	0.00	0.00	29.19

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 22—Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, Southern Plains, 1993

Item	Economic size of farm				
	\$50,000- \$99,999	\$100,000- \$249,999	\$250,000 \$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	0	307	0	294	602
Percent of farms	0.00	46.31	0.00	80.55	22.46
For those using production strategies, percent that used:					
Stable income	0.00	46.31	0.00	0.00	11.47
Diversification	0.00	0.00	0.00	9.72	1.33
Custom/contract inputs	0.00	0.00	0.00	0.00	0.00
Insurance	0.00	0.00	0.00	0.00	0.00
Government programs	0.00	0.00	0.00	9.72	1.33
Leased livestock	0.00	0.00	0.00	0.00	0.00
Leased land	0.00	46.31	0.00	70.83	21.13
Share rent land	0.00	0.00	0.00	9.72	1.33
Leased equipment	0.00	0.00	0.00	0.00	0.00
Nonfarm use of land	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00
Financial strategies					
Number of farms	0	307	231	107	645
Percent of farms	0	46.31	100.00	29.17	24.07
For those using financial strategies, percent that used:					
Open credit lines	0.00	0.00	100.00	19.45	11.27
Maintain equity in cash	0.00	0.00	100.00	19.45	11.27
Match loan maturity with sales	0.00	0.00	100.00	9.72	9.95
Renegotiated loans	0.00	46.31	0.00	19.45	14.13
Other	0.00	0.00	0.00	0.00	0.00
Marketing strategies					
Number of farms	0	307	0	142	450
Percent of farms	0	46.31	0.00	38.90	16.78
For those using marketing strategies, percent that used:					
Hedging	0.00	0.00	0.00	9.72	1.33
Contract sale of product	0.00	0.00	0.00	29.17	3.98
Spread sales	0.00	46.31	0.00	0.00	11.47
Contract sales	0.00	0.00	0.00	19.45	2.65
Other	0.00	0.00	0.00	0.00	0.00

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 23- Use of marketing, financial, and production strategies for specialized dairy farms, by size of farm, Upper Midwest, 1993

Item	Economic size of farm				
	\$50,000-\$99,999	\$100,000-\$249,999	\$250,000-\$499,999	\$500,000 and over	All farms
Production strategies					
Number of farms	7,037	13,075	6,185	1,003	34,324
Percent of farms	83.07	61.12	100.00	91.44	70.07
For those using production strategies, percent that used:					
Stable income	26.53	10.24	26.31	25.68	14.67
Diversification	21.86	7.64	41.51	0.00	12.36
Custom/contract inputs	10.44	22.10	0.00	17.12	11.84
Insurance	28.48	32.04	29.58	46.69	33.74
Government programs	20.49	52.33	68.68	74.32	49.36
Leased livestock	0.00	0.00	0.00	0.00	0.00
Leased land	47.83	16.85	28.33	65.76	30.72
Share rent land	0.00	0.00	1.80	0.00	0.23
Leased equipment	0.00	9.28	0.00	0.00	4.05
Nonfarm use of land	0.00	0.00	0.00	0.00	1.71
Other	14.84	8.04	26.31	8.56	11.30
Financial strategies					
Number of farms	5,437	16,169	6,185	1,003	29,949
Percent of farms	64.18	75.58	100.00	91.44	61.14
For those using financial strategies, percent that used:					
Open credit lines	34.36	45.11	80.95	72.37	37.53
Maintain equity in cash	36.55	48.19	26.50	74.32	34.09
Match loan maturity with sales	19.10	9.46	44.55	17.12	13.44
Renegotiated loans	32.14	21.60	62.39	8.56	25.38
Other	14.84	12.85	6.29	38.13	11.54
Marketing strategies					
Number of farms	4,410	13,831	4,969	1,097	26,857
Percent of farms	52.06	64.65	80.34	100.00	54.83
For those using marketing strategies, percent that used:					
Hedging	0.00	0.00	1.80	8.56	2.13
Contract sale of product	16.50	17.64	6.29	46.69	14.11
Spread sales	44.22	38.80	79.53	44.75	39.13
Contract sales	16.50	22.83	26.31	72.37	17.76
Other	22.02	22.13	45.95	19.07	19.70

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.

Appendix table 24—Characteristics of specialized dairy businesses with low, mid, and high-NFI, 1993

Item	Unit	Low-NFI businesses	Mid-NFI businesses	High-NFI businesses
Share of FCRS dairy:				
Farms	percent	25	50	25
Milk sales	percent	21	29	50
Operated acres	acres	335	281	416
Milk production value	dollars	128,688	92,417	323,548
Farm production value	dollars	143,860	103,217	361,147
Average milk cow inventory	head	69	49	152
Financial position:				
Favorable	percent of farms	20	87	91
Marginal income	percent of farms	64	0	0
Marginal solvency	percent of farms	1	13	9
Vulnerable	percent of farms	15	0	0
Farm debt-to-asset	ratio	0.17	0.15	0.21
Milk production regions:				
Northeast	percent of farms	21	55	24
Southeast	percent of farms	27	26	47
Upper Midwest	Percent of farms	28	48	24
Corn Belt	percent of farms	24	59	17
Southern Plains	percent of farms	34	23	43
Major occupation:				
Farming	percent of farms	89	96	97
Other	percent of farms	11	4	3
Farm organization:				
Individual	percent of farms	87	88	68
Partnership	percent of farms	12	10	27
Corporations or cooperatives	percent of farms	1	2	5
Operator age:				
Less than 35 years	percent of farms	8	11	9
35 to 49 years	percent of farms	44	44	45
50 to 64 years	percent of farms	35	40	35
65 years or more	percent of farms	13	5	11
Experience in milk production:				
Operator of 1993 operation	years	21	21	22
Work on any operation	years	33	32	32
Operator education:				
Less than high school	percent of farms	27	25	25
Completed high school	percent of farms	48	49	48
Attended college	percent of farms	22	20	14
Completed college	percent of farms	3	6	13

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA

Appendix table 25—Performance and production practices of specialized dairy businesses with low, mid, and high-NFI, 1993

Item	Unit	Low-NFI businesses	Mid-NFI businesses	High-NFI businesses
Output per cow	pounds	14,984	14,785	17,210
Feed efficiency:				
Concentrates and grains	pounds per cwt of milk sold	56	51	49
Hay and straw	pounds per cwt of milk sold	40	42	33
Silage	pounds per cwt of milk sold	108	112	78
Other	pounds per cwt of milk sold	13	11	7
Total	pounds per cwt of milk sold	217	216	167
Feed efficiency	pounds per cow	31,189	30,935	28,262
Feed ration:				
Roughage	percent	68	71	66
Concentrates	percent	26	24	29
Pasture	percent	1	3	1
Other	percent	5	2	4
Homegrown feed:				
Grain	percent of grain fed	58	75	58
Hay and straw	percent of hay and straw fed	64	84	50
Silage	percent of silage fed	86	97	79
Labor efficiency:				
Paid labor	hours per cwt of milk sold	0.14	0.11	0.11
Unpaid labor	hours per cwt of milk sold	0.31	0.49	0.16
Total	hours per cwt of milk sold	0.45	0.60	0.27
Labor efficiency	hours per cow	64	85	45
Housing facilities:				
Stanchion/tie stall barns	percent of capacity	30	40	14
Loafing barns/loose housing	percent of capacity	20	18	11
Freestall barns	percent of capacity	17	15	20
Calf barns	percent of capacity	15	12	10
Dry lot corrals	percent of capacity	12	10	37
Other	percent of capacity	6	5	8
Milking facilities:				
Herringbone parlors	percent of capacity	27	20	41
Parallel parlors	percent of capacity	6	4	4
Polygon parlors	percent of capacity	0	0	0
Carousel parlors	percent of capacity	0	0	1
Other parlors	percent of capacity	7	7	9
Barns with pipeline	percent of capacity	46	56	41
Pail/buckets	percent of capacity	14	13	4
Times cows milked	times/day	2	2	2
Hours milking system operational	hours	5	4	6
Times milk picked up:				
Once a day	percent of farms	18	17	35
Every other day	percent of farms	82	82	62
More than once a day	percent of farms	0	1	3
Capacity of milk tanks/silos	gallons	865	784	1,649

Source: Compiled by Economic Research Service from 1993 Farm Costs and Returns Survey, USDA.