

**OVERHEAD COSTS
FROM
FARM COST ACCOUNTS**

30 FARMS - 1970

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REPORTS
from
FARM COST ACCOUNTS
30 Farms, 1970

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INTRODUCTION

For the Cost Account year 1970 there were 30 New York State farmers who completed detailed records on their businesses in cooperation with the Department of Agricultural Economics, Cornell University. The farms are located in most of the farming areas of the state. They are generally well-run, full-time, commercial farm businesses. They are representative of the "better" farms in New York.

The report presents the results for individual enterprises and the averages of the costs and returns for all farms. It thus shows not only the averages of costs and returns but also indications of the variations and reasons for them. The factors for individual enterprises are arranged according to size of enterprise. The averages of the costs are not averages of average costs but are weighted by the size of the enterprise.

The project was under the supervision of C. D. Kearl. The field work on these accounts was done by Darwin Snyder and C. D. Kearl. The closing of the books and the preparation of this report on results of the operation of the farms was done by the Cost Account staff consisting of Oneta Shipe, Edna Wheeler, Barbara Upham, Cynthia Piburn, Regina Combs and Mary Chaffee.

The material on pages 2 and 3 of this report was taken from A. E. Res. 331, Dairy Farm Management, Business Summary, New York, 1970 by C. A. Bratton.

Table 1. TEMPERATURE, GROWING SEASON AND PRECIPITATION
Selected Stations

Station	Av. temperature		Precipitation				Length of growing season*	
	May thru Sept.		May thru Sept.		Total annual		growing season*	
	1941-70	1970	1941-70	1970	1947-67	1970	1947-70	1970
	Degrees				Inches		Days	
Alfred	61.8	63.2	17.3	16.5	36.7	35.4	125	151
Auburn	65.0	63.9	14.1	17.2	31.1	32.3	174	162
Batavia	64.0	66.1	15.3	20.5	31.8	40.6	154	163
Canton	63.0	62.6	16.5	17.5	34.9	34.5	127	141
Lowville	62.5	62.8	16.5	19.3	38.0	39.5	123	163
Norwich	61.9	61.7	18.4	19.1	40.1	38.0	120	162
Poughkeepsie FAA	66.3	67.7	16.7	15.2	38.2	34.4	164	163
Salem	62.8	63.9	18.4	20.8	39.0	36.5	119	130
Utica FAA	63.5	64.9	18.1	20.3	39.8	46.1	157	163

* Days between the last temperature of 32 degrees in the spring and the first in the fall

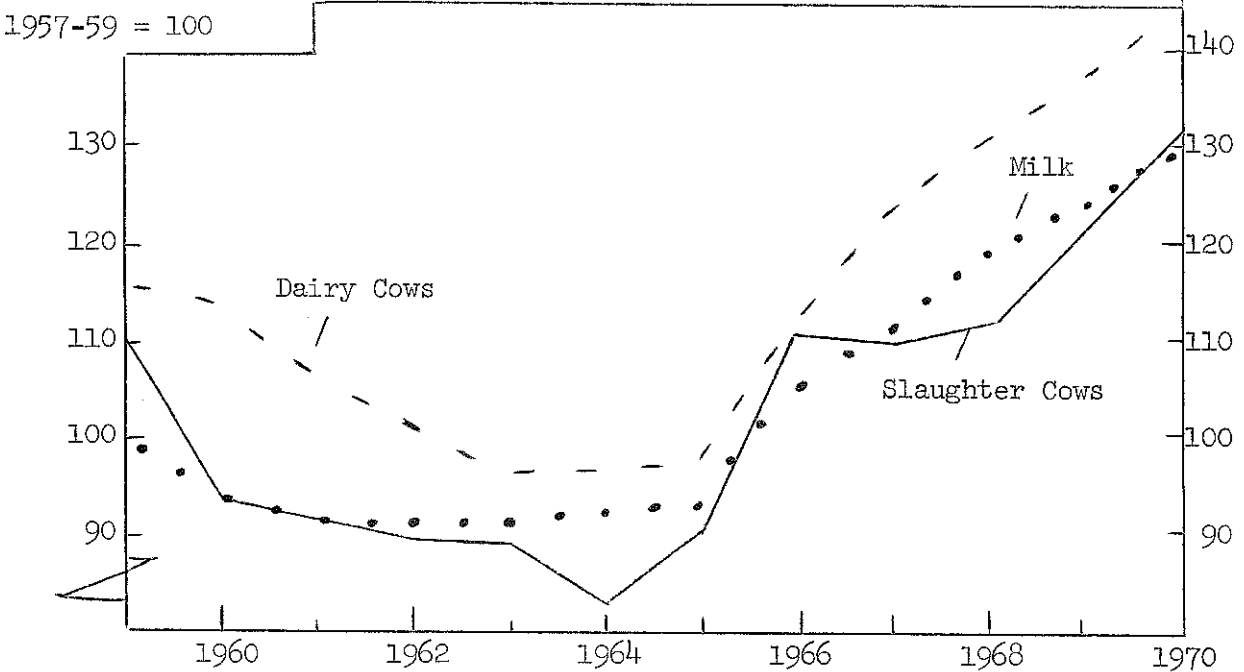
Weather is a factor to be considered when studying a farm business for a specific year. The growing conditions have a marked effect on the crops for the year. It is for this reason that data are presented on the growing conditions for 1970 and for the period 1941-70.

In general, the 1970 growing season can be characterized as having near normal temperatures, a slightly longer growing season and about normal annual rainfall. Conditions varied from area to area in the state. Data are presented for nine weather stations. The rainfall is reported by months for the growing season. May, June, and July were about normal in most areas while August and September were wet (table 2).

Table 2. GROWING SEASON RAINFALL
Selected Stations, 1941-70 and 1970

Station	May		June		July		August		September	
	1941-70	1970	1941-70	1970	1941-70	1970	1941-70	1970	1941-70	1970
Alfred	3.84	2.92	3.76	1.65	3.73	5.24	3.00	2.77	2.93	3.88
Auburn	2.82	2.86	2.90	3.25	3.43	4.04	2.57	3.62	2.35	3.38
Batavia	3.17	3.72	2.69	2.85	3.05	2.92	3.50	6.19	2.87	4.79
Canton	3.37	2.38	2.91	3.50	3.45	4.56	3.45	3.19	3.31	3.83
Lowville	3.42	3.21	2.94	4.36	3.26	3.84	3.58	3.24	3.31	4.63
Norwich	3.92	4.15	4.13	1.88	3.95	5.96	3.17	2.45	3.27	4.66
Poughkeepsie	3.37	2.96	3.42	2.96	3.20	1.89	3.59	4.03	3.16	3.31
Salem	3.75	3.62	3.89	4.35	3.66	4.19	3.43	2.87	3.67	5.79
Utica	3.52	3.87	3.55	5.79	4.17	1.56	3.54	3.54	3.32	5.51

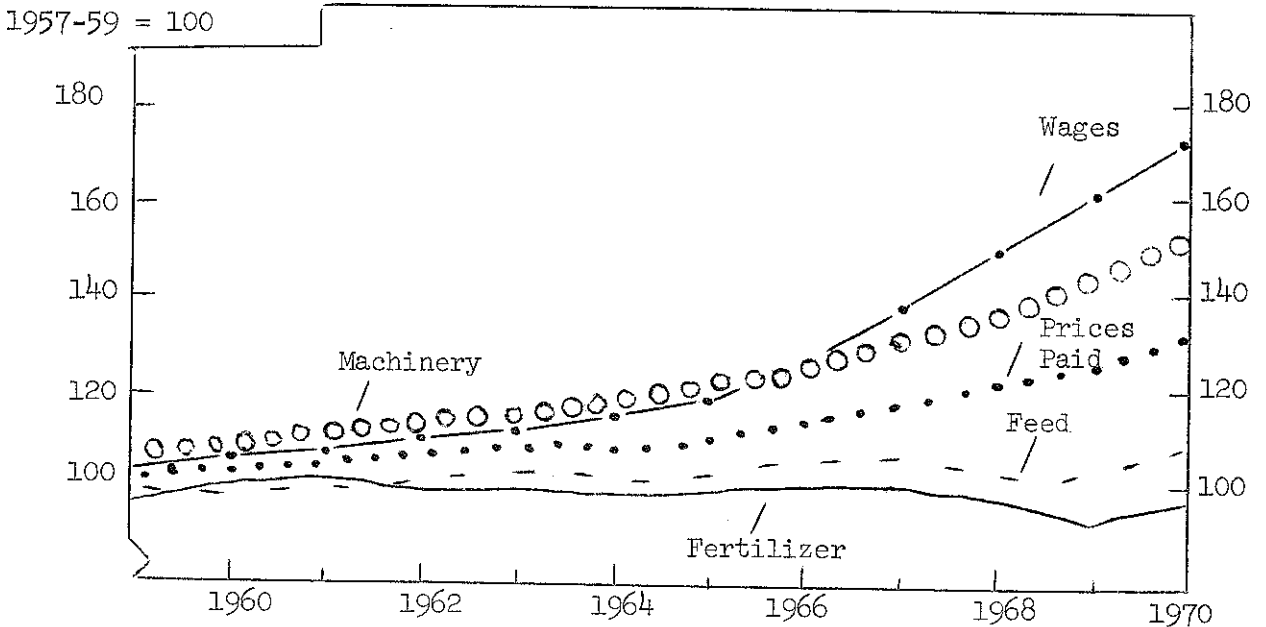
SOURCE: Climatological Data, New York, Environmental Data Service, ESSA, U. S. Department of Commerce



SOURCE: U.S.D.A. Agricultural Prices

Prices are an important business factor. The relationship of prices received to prices paid determines the general level of incomes. Milk prices for 1970 averaged \$5.89 compared with \$5.66 in 1969 and \$4.14 in 1962. Both dairy and slaughter cow prices in 1970 were at new highs for recent years. In general, prices received by dairymen in 1970 were good.

PRICES PAID BY N.Y. DAIRY FARMERS, 1959-1970



SOURCE: U.S.D.A. Agricultural Prices

The index of prices paid by New York dairy farmers has risen steadily but items have changed by different amounts. Farm wages have increased the most. Fertilizer prices have declined some. Feed prices have fluctuated but in general have changed little. The overall index of prices paid by New York dairy farmers in 1970 was up 5 percent from 1969 and was 27 percent higher than 1960.

YIELDS FOR CROPS AND LIVESTOCK
New York State and Farm Cost Account Averages

Item	Unit	1946-55	1969	1970	Cost Account 1970
Hay	tons	1.7	2.1	2.2	2.9
Corn silage	tons	10	14	14	14
Corn grain	bu.	44	75	79	84
Wheat	bu.	31	40	43	48
Cows	lbs.	6,588	10,067	10,207	13,589

* AMS Reports and unpublished tabulations

FARM COST ACCOUNT SUMMARY, 1970

Crop Enterprises

Crop	Number of enterprises	Average acres per enterprise	Yield per acre	Hours of labor per acre*	Return per		Profit per acre	Profit on enterprise
					Hour of labor	Dollar of cost		
				hr	\$	\$	\$	\$
<u>Forage:</u>								
Hay	18	72.0	2.9T	6	1.21	0.89	- 10	- 705
Hay crop silage	11	68.6	8.4T	4	0.86	0.92	- 8	- 589
Corn silage	19	96.0	14.0T	6	2.41	0.98	- 3	- 269
<u>Grain:</u>								
Corn for grain	7	38.2	84bu.	4	11.75	1.38	34	1,305
High moisture corn	5	53.0	3.9T	5	4.45	1.07	9	511
Wheat	10	91.6	48bu.	4	12.10	1.42	36	3,288
Oats	7	23.7	74bu.	6	0.89	0.87	- 13	- 297
<u>Fruit:</u>								
Apples	13	82	373bu.	73	0.61	0.68	-198	-16,280
Sweet cherries	5	15	2,619lbs.	78	1.25	0.68	-134	- 2,059
Red Tart cherries	10	27	7,140lbs.	70	2.87	0.96	- 18	- 480
Peaches	6	13	80bu.	73	2.64	1.01	4	46
Grapes	5	26	4T	113	3.76	1.31	169	4,335

* To grow and harvest the crop

ENTERPRISE RATES OF RETURN
FARM COST ACCOUNT RECORDS, 1967-1970

Enterprise	Return per hour of labor				Return per dollar of cost			
	1967	1968	1969	1970	1967	1968	1969	1970
	\$	\$	\$	\$	\$	\$	\$	\$
<u>Livestock:</u>								
Dairy cows	3.03	4.46	4.64	4.34	1.08	1.16	1.14	1.10
<u>Forage:</u>								
Hay	0.08	-0.58	-0.69	1.21	0.83	0.76	0.78	0.89
Hay crop silage	4.17	-2.53	0.26	0.86	1.11	0.76	0.87	0.92
Corn silage	3.38	-0.35	1.95	2.41	1.07	0.86	0.96	0.98
<u>Grain:</u>								
Corn for grain	1.87	-3.48	-2.46	11.75	0.99	0.79	0.84	1.38
High moisture corn	--	--	--	4.45	--	--	--	1.07
Wheat	4.96	6.80	8.83	12.10	1.14	1.20	1.31	1.42
Oats	-3.58	-2.18	--	0.89	0.60	0.70	--	0.87
<u>Fruit:</u>								
Apples	3.57	3.19	1.54	0.61	1.22	1.04	0.82	0.68
Sweet cherries	2.96	5.90	2.12	1.25	1.20	1.61	0.89	0.68
Red tart cherries	9.26	5.77	1.52	2.87	2.45	1.50	0.79	0.96
Peaches	--	--	-0.31	2.64	--	--	0.51	1.01
Grapes	3.21	2.63	--	3.76	1.26	1.06	--	1.31

Factors from 26 REAL ESTATE Enterprises
26 Cost Account Farms, 1970
(Arranged by farm number)

Farm number	Acres owned		Value of land and buildings \$	Per acre of cropland		Building cost as a percent of value %
	Cropland* acres	Total acres		Value \$	Cost \$	
107	118	387	85,045	125	14.31	12
114	238	653	81,625	87	12.51	23
133	109	387	55,074	108	24.01	17
802	---	221	178,216	---	---	26
804	126	236	73,810	74	8.05	25
805	102	163	44,862	52	10.01	19
806	245	585	130,860	83	7.72	16
811	174	226	72,225	124	18.95	17
812	318	434	151,741	88	14.65	25
813	248	410	134,600	122	9.92	14
814	25	155	127,226	176	18.29	8
817	171	287	112,175	175	21.02	19
819	306	384	269,108	559	44.90	38
821	161	593	157,368	45	8.25	23
822	2	142	68,041	51	32.78	35
823	157	652	89,758	80	8.75	15
824	365	530	127,880	79	18.94	23
827	2,150	2,456	585,886	133	19.38	27
828	160	270	75,625	69	8.12	30
829	382	825	325,760	112	6.57	23
830	245	517	68,684	23	9.92	15
831	17	83	45,138	70	8.08	12
832	195	700	220,014	86	7.00	17
833	1,280	2,358	892,163	172	21.95	27
834	176	217	121,100	102	11.37	17
836	392	560	120,000	148	14.88	17

Annual Averages, all farms:

1970	302	555	169,769	137	17.04	22
1969	262	475	150,622	122	13.07	19
1968	242	448	132,240	119	10.95	19
1967	228	424	115,947	115	13.36	17
1966	199	385	107,291	116	11.81	19

* Fruit land not included

Factors from 29 LABOR Enterprises
29 Cost Account Farms, 1970
(Arranged by man equivalents of all regular labor)

Farm no	Man equivalents*		Total hours per farm hr	Per man equivalent						
	All reg labor no	All farm labor no		Hours worked		Annual cost**		Cost** per hour		
				All reg labor hr	All farm labor hr	All regular labor \$	Regular excl operator \$	All reg labor \$	Part time labor \$	All farm* labor \$
827	20.1	30.9	86,986	2,797	2,815	11,674	10,146	4.17	2.20	3.54
833	11.2	26.5	70,592	2,462	2,664	9,483	8,970	3.85	2.06	3.29
826	6.7	9.2	24,033	2,525	2,612	5,965	5,432	2.36	1.80	2.21
821	5.9	6.4	18,470	2,893	2,886	7,145	6,241	2.47	2.16	2.45
806	4.9	5.1	13,379	2,616	2,623	6,948	6,679	2.66	1.86	2.62
812	4.4	5.3	16,526	3,177	3,118	12,659	9,729	3.98	1.63	3.62
824	4.0	5.7	19,137	3,626	3,357	7,372	5,900	2.03	1.45	2.07
834	3.8	4.6	15,003	3,330	3,262	10,399	8,369	3.12	1.99	2.95
813	3.6	3.8	9,499	2,571	2,500	10,448	5,499	4.06	3.85	4.06
823	3.2	4.1	11,349	2,804	2,768	5,870	4,436	2.09	1.74	2.02
114	3.0	3.3	11,291	3,496	3,422	9,956	5,980	2.85	2.05	2.79
805	3.0	3.2	8,935	2,819	2,792	6,097	5,539	2.16	1.83	2.14
819	3.0	25.4	70,035	2,358	2,757	16,615	---	7.05	2.02	2.47
811	2.6	2.7	6,338	2,372	2,347	9,103	9,148	3.84	2.32	3.80
830	2.5	5.4	13,794	2,248	2,554	8,454	7,531	3.76	1.39	2.36
828	2.4	4.2	13,726	3,650	3,268	7,877	6,860	2.16	1.36	2.45
817	2.3	3.9	11,069	2,798	2,838	7,567	6,722	2.70	1.90	2.36
107	2.0	2.9	8,330	3,032	2,872	8,620	---	2.84	2.68	2.73
133	2.0	2.2	8,089	3,785	3,677	9,324	9,848	2.46	0.90	2.42
802	2.0	15.2	38,840	2,516	2,555	9,075	5,887	3.61	2.35	3.17
804	2.0	2.6	8,056	3,295	3,098	10,262	8,775	3.11	1.92	2.90
814	2.0	3.4	8,731	2,466	2,568	7,693	4,770	3.12	2.03	2.65
820	2.0	2.1	6,833	3,256	3,254	8,230	---	2.53	1.68	2.49
835	2.0	2.9	9,731	3,630	3,356	9,136	7,996	2.52	1.59	2.27
836	2.0	3.4	8,744	2,547	2,572	8,298	7,975	3.26	2.60	2.98
816	1.8	3.5	11,676	3,960	3,336	4,819	3,480	1.22	1.81	1.59
822	1.0	3.5	8,128	1,520	2,322	10,000	---	6.58	2.79	3.50
831	1.0	1.9	4,353	1,786	2,291	6,000	---	3.36	1.62	2.42
832	1.0	7.8	20,900	2,482	2,679	11,600	---	4.67	2.96	3.26

1970 Group Averages, according to man equivalent of regular labor:

Thirds										
High	6.8	10.2	28,497	2,880	2,860	8,796	7,140	3.08	2.07	2.88
Med	2.5	5.9	16,845	2,951	2,947	9,290	7,375	3.31	1.83	2.61
Low	1.7	4.6	12,599	2,746	2,803	8,511	6,480	3.40	2.14	2.72

* Labor Classes: All regular - full time, year round, permanent workers including operators
Part time - occasional summer and seasonal help
Unpaid - a value has been placed on unpaid family and neighbor help
Special - piecework help

** Includes all labor non-wage costs such as housing, soc. sec., workman's comp, etc.

Factors from 29 LABOR Enterprises
 29 Cost Account Farms, 1970
 (Arranged by man equivalents of all regular labor)
 - continued -

Farm	Man equivalents*		Total hours per farm	Per man equivalent				Cost** per hour		
	All	All		Hours worked		Annual cost**		All	Part	All
	reg	farm		reg	farm	regular	Regular	reg	time	farm*
no	labor	labor	hr	labor	labor	labor	operator	labor	labor	labor
	no	no		hr	hr	\$	\$	\$	\$	\$

Annual averages, all farms:

1970	3.7	6.9	19,399	2,837	2,799	9,267	7,892	3.27	2.12	2.88
1969	2.3	6.4	18,144	2,829	2,816	9,167	8,236	3.24	2.15	2.71
1968	2.2	6.5	17,268	2,453	2,681	8,192	7,134	3.34	2.05	2.59
1967	2.2	6.5	18,146	2,789	2,801	7,340	6,519	2.63	1.80	2.22
1966	2.1	6.0	16,342	2,508	2,703	6,541	5,626	2.61	1.57	1.99

- * Labor Classes: All regular - full time, year round, permanent workers including operators
 Part time - occasional summer and seasonal help
 Unpaid - a value has been placed on unpaid family and neighbor help
 Special - piecework help

** Includes all labor non-wage costs such as housing, soc. sec., workman's comp, etc.

AVERAGE LABOR FORCE PER FARM
29 Cost Account Farms, 1970

Item	Size Group*			All farms
	High third	Medium third	Low third	
Number of farms	10	9	10	29
Man equivalents -				
All regular labor:				
Range	20.1 to 3.2	2.0 to 2.0	2.0 to 1.0	20.1 to 1.0
Average	6.8	2.5	1.7	3.7
All farm labor:				
Average	10.2	5.9	4.6	6.9
Months of work performed by labor class:				
All regular	81	30	20	44
Part time	27	35	23	28
Unpaid	2	2	2	2
Special	12	4	11	9
Total months	122	71	56	83

* Size of farm is based on man equivalents of all regular labor.

COST OF LABOR
29 Cost Account Farms, 1970

Labor class	Cash cost or value	Privileges	Total	Total cost for	
	of gross wage, Soc. Sec. & Comp.	ie. housing, elect, fuel, etc.		cost	High
	\$	\$	\$	\$	\$
	<u>Cost per man equivalent</u>				
Regular:					
Operator(s)*	10,204	1,578	11,782	14,315	9,407
Other	6,737	1,155	7,892	8,119	6,843
	<u>Cost per hour</u>				
Part time	2.01	0.11	2.12	2.06	2.48
Unpaid	1.98	0.13	2.11	2.46	2.15
Special	2.89	0.57	3.46	3.67	3.50

* His estimate of what he could earn as hired manager of a similar farm.

Factors from ALL EQUIPMENT Enterprises
30 Cost Account Farms, 1970
(Read cross both pages)

Equipment cost per acre of related crops				Equipment investment per acre of related crops				Farm no
Type of equipment				Type of equipment				
Land prep	Field crop	Veg crop	Fruit crop	Land prep	Field crop	Veg crop	Fruit crop	
\$	\$	\$	\$	\$	\$	\$	\$	
4	14	36	--	2	19	54	--	827
4	29	32	90	8	68	50	153	833
7	25	23	103	10	72	32	178	829
8	34	75	--	16	95	173	--	819
--	--	--	38	--	--	--	113	802
3	23	--	--	11	53	--	--	824
3	24	12	--	5	70	39	--	835
5	20	--	--	12	46	--	--	821
20	22	--	48	42	24	--	69	832
3	29	--	--	11	86	--	--	107
1	16	--	--	4	43	--	--	834
3	16	--	--	3	27	--	--	812
1	18	--	--	5	52	--	--	806
6	39	--	--	11	63	--	--	817
1	--	53	--	4	--	175	--	823
2	26	--	--	4	29	--	--	813
3	23	--	51	8	57	--	142	828
2	10	--	--	5	39	--	--	830
3	18	--	--	10	59	--	--	804
2	12	--	--	5	35	--	--	836
4	13	--	--	8	50	--	--	820
2	21	--	--	4	44	--	--	114
6	30	--	--	9	87	--	--	133
2	15	--	--	2	44	--	--	811
5	45	48	21	16	76	124	65	826
3	9	--	--	4	30	--	--	805
19	--	35	19	80	--	245	70	816
25	6	--	33	48	13	--	66	814
--	--	--	24	--	--	--	24	822
--	--	--	10	--	--	--	18	831

1970 Group Averages, according to equipment investment:

								Thirds
6	24	***	***	13	59	***	***	High
2	20	***	***	6	45	***	***	Med
8	20	***	***	21	49	***	***	Low

Annual Averages, all farms:

4	19	37	63	6	44	63	118	1970
-----Not available-----								1969
-----Not available-----								1968
-----Not available-----								1967
-----Not available-----								1966

Factors from ALL EQUIPMENT Enterprises
30 Cost Account Farms, 1970
(Arranged by equipment investment)

Farm no	All equipment other than power*					Total invest-ment in power and equip	Proportion of farm capital that is:		Custom work	
	Invest-ment	Net annual cost	Cost in percent of invest-ment	Cost per crop** acre	Invest-ment per crop** acre		Equip	Power and equip	Ex-penses	Re-ceipts
	\$	\$	%	\$	\$	\$	%	%	\$	\$
827	224,810	155,442	69	42	60	311,720	21	29	11,209	8,645
833	214,438	122,740	57	61	107	287,926	18	24	8,694	56,390
829	80,055	43,236	54	73	136	107,530	17	22	18,950	---
819	65,547	30,258	47	94	201	100,021	15	23	1,784	2,148
802	60,888	22,971	38	49	129	90,550	17	25	2,528	16,660
824	47,981	19,743	41	68	165	71,766	16	24	709	---
835	38,540	13,384	35	35	102	50,602	33	43	2,077	40
821	36,044	14,507	40	74	184	69,444	11	20	652	---
832	35,915	19,574	62	46	80	69,060	11	20	617	---
107	33,468	11,120	33	61	183	49,288	18	26	1,399	---
834	33,315	14,364	43	34	79	49,765	11	17	392	---
812	31,650	15,253	48	52	107	45,683	10	14	1,041	---
806	30,785	10,397	34	36	106	51,185	10	17	1,025	---
817	30,188	20,764	69	76	111	44,071	15	21	516	---
823	26,035	8,448	32	72	221	35,945	17	23	4,716	1,313
813	24,850	14,705	59	53	90	35,100	9	13	911	---
828	24,764	10,227	41	45	110	33,964	18	25	854	---
830	23,910	8,852	37	24	66	50,541	11	13	550	---
804	21,274	6,993	33	37	114	37,249	12	21	681	---
836	20,970	7,404	35	20	56	39,970	9	17	2,210	---
820	20,004	5,988	30	32	105	31,842	22	35	144	---
114	17,912	7,672	43	37	86	26,237	12	17	---	---
133	16,762	7,802	47	83	178	22,539	16	21	1,576	---
811	15,632	8,265	53	50	94	25,582	10	16	360	---
826	14,440	5,287	37	38	104	21,195	5	8	20	430
805	12,030	4,754	40	24	61	19,030	9	14	1,340	---
816	9,942	2,060	21	30	147	18,292	12	22	3,000	1,400
814	6,898	3,888	56	44	79	16,787	7	11	5,969	---
822	3,802	3,593	91	29	31	11,379	4	13	1,732	84
831	1,538	692	45	11	25	2,763	3	5	---	---

1970 Group Averages, according to equipment investment:

Thirds

High	83,769	45,298	48	60	135	120,791	18	26	4,862	***
Med	26,774	11,741	43	45	106	42,347	12	18	1,290	***
Low	11,896	5,000	46	38	91	19,565	10	16	1,768	***

Annual Averages, all farms:

1970	40,813	20,679	51	49	96	60,901	14	22	2,522	2,904
1969	36,789	16,287	44	36	81	55,305	15	22	714	1,349
1968	34,456	15,279	44	37	83	51,534	15	22	639	583
1967	32,262	13,131	41	33	80	46,993	15	22	856	358
1966	24,879	9,698	39	32	81	35,923	13	19	443	284

* Power includes tractors, trucks and farm share of auto

** Includes cropland and bearing and non-bearing orchards and vineyards

*** Not averaged

AVERAGE EQUIPMENT COSTS, 1970
30 Cost Account Farms

Item	Average per farm	
ALL EQUIPMENT:		
Purchases, gain	\$ 8,715	
Repairs, labor	7,000	
Other costs*	6,952	
Total		\$ 22,667
Inventory increases	\$ 1,138	
Sales, loss	850	
NET ANNUAL COST		\$ 20,679

* Includes interest, insurance, use of buildings, etc.

EQUIPMENT COSTS AND INVESTMENTS PER ACRE
BY TYPE OF EQUIPMENT

Type of equipment	Cost	Investment	Crop
	\$	\$	
Land preparation	4	6	field, veg crops
Field crop	19	44	field crops
Vegetable crop	37	63	vegetable crops
Fruit crop	63	118	fruit crops

EQUIPMENT COSTS AS A PERCENT
OF EQUIPMENT INVESTMENT

Type of equipment	Percent
Livestock	46
Land preparation	61
Field crop	43
Vegetable crop	58
Fruit crop	53
All other	46
All equipment	51

Factors from 114 TRACTOR Enterprises
30 Cost Account Farms, 1970
(Arranged by hours of use per tractor)

Farm number	Average value per tractor \$	Annual cost per tractor				Total cost \$	Gal. of fuel per hr. gal	Hours of use per tractor hours	Average cost per hour of use \$
		Deprec	Repairs, labor \$	Fuel \$	All other \$				
<u>One-pLOW tractors - 10-19 db hp - 11 tractors in 5 enterprises:</u>									
835	275	--	149	58	52	259	1.6	172	1.51
819	685	23	169	25	51	268	0.8	140	1.91
821	750	--	21	14	13	48	0.9	80	0.60
133	700	200	2	8	57	267	0.3	77	3.47
814	498	142	1	7	44	194	0.9	34	5.61
<u>Two-pLOW tractors - 20-29 db hp - 48 tractors in 25 enterprises:</u>									
816	550	100	95	182	65	442	0.8	744	0.59
805	500	--	161	144	45	350	1.4	479	0.73
828	275	50	124	89	100	363	1.1	439	0.83
819	512	88	178	85	127	478	1.0	418	1.14
812	388	25	579	73	50	727	1.0	366	1.99
824	388	50	247	114	33	444	1.2	303	1.46
831	300	50	43	45	40	178	0.7	303	0.59
814	1,228	200	63	54	104	421	0.9	299	1.41
829	558	184	131	74	163	552	1.3	278	1.99
814	1,000	--	45	54	45	144	1.0	277	0.52
836	250	--	62	91	61	214	1.7	272	0.79
802	488	--	257	72	66	395	1.5	266	1.48
822	750	300	39	55	120	514	0.9	261	1.97
811	400	--	28	165	45	238	2.5	256	0.93
804	562	125	50	68	76	319	1.2	250	1.28
827	386	27	249	57	58	391	1.1	248	1.58
814	1,050	--	188	77	32	297	1.6	244	1.22
114	750	100	251	81	68	500	1.4	220	2.27
832	400	--	58	57	192	307	1.4	219	1.40
812	350	--	33	97	38	168	2.6	182	0.92
114	350	100	3	44	40	187	1.1	146	1.28
826	1,272	--	39	46	38	123	1.5	131	0.94
834	280	--	20	30	25	75	1.7	92	0.82
823	360	--	15	34	53	102	2.2	68	1.50
821	1,200	200	39	21	100	360	1.7	64	5.62

Factors from 114 TRACTOR Enterprises
30 Cost Account Farms, 1970
(Arranged by hours of use per tractor)

Farm number	Average value per tractor \$	Annual cost per tractor				Total cost \$	Gal. of fuel per hr. gal	Hours of use per tractor hours	Average cost per hour of use \$
		Deprec	Repairs, labor \$	Fuel \$	All other \$				
Three-plow tractors - 30-44 db hp - 54 tractors in 40 enterprises:									
802	3,150	300	454	344	277	1,375	2.2	876	1.57
832	1,000	--	384	172	281	837	1.1	781	1.07
802	1,450	100	689	235	195	1,219	2.0	672	1.81
832	2,000	--	1,236	191	383	1,810	1.6	643	2.82
823	800	--	45	235	87	367	1.4	637	0.58
835	1,750	500	486	180	240	1,406	1.3	637	2.21
830	3,750	500	336	444	402	1,682	2.8	607	2.77
805	750	--	261	290	65	616	2.2	603	1.02
806	2,500	--	862	81	211	1,154	0.8	582	1.98
802	1,400	100	646	133	178	1,057	1.3	569	1.86
823	800	--	110	304	87	501	2.4	553	0.91
802	4,200	100	576	156	364	1,196	1.6	546	2.19
804	3,250	500	708	191	418	1,817	1.7	506	3.59
806	1,350	300	540	151	118	1,109	1.7	501	2.21
824	1,375	150	462	156	126	894	1.1	500	1.79
813	900	300	172	165	106	743	1.4	496	1.50
811	2,750	500	52	169	233	954	1.4	473	2.02
828	1,400	400	185	120	219	924	1.3	469	1.97
830	1,100	222	302	261	266	1,051	2.2	464	2.26
820	600	--	260	147	100	507	1.2	457	1.11
802	288	25	111	119	60	315	1.6	414	0.76
830	750	100	251	235	86	672	2.2	403	1.67
816	1,000	--	356	184	111	651	1.5	394	1.65
821	4,750	500	--	148	251	899	2.0	390	2.31
819	1,187	240	233	78	161	712	0.9	390	1.82
827	892	50	380	272	150	852	3.3	380	2.24
834	940	120	384	83	122	709	1.2	351	2.02
817	1,000	--	550	241	140	931	3.1	347	2.68
114	925	150	377	144	87	758	1.6	331	2.29
828	375	50	160	78	125	413	1.2	327	1.26
823	1,800	200	530	215	163	1,108	3.3	288	3.85
806	1,000	--	136	103	100	339	2.1	283	1.20
812	625	50	80	122	70	322	2.2	267	1.21
826	458	17	491	56	134	698	0.9	264	2.65
812	775	- 50	813	169	135	1,067	3.2	258	4.14
830	950	100	293	187	126	706	2.8	257	2.75
133	712	125	144	141	66	476	2.2	208	2.29
107	700	200	23	63	76	362	2.0	177	2.05
836	617	37	47	71	57	212	2.0	176	1.21
817	700	--	349	22	72	443	1.5	65	6.82

Factors from 114 TRACTOR Enterprises
30 Cost Account Farms, 1970
(Arranged by hours of use per tractor)

Farm number	Average value per tractor \$	Annual cost per tractor					Gal. of fuel per hr. gal	Hours of use per tractor hours	Average cost per hour of use \$
		Deprec	Repairs, labor	Fuel	All other	Total cost			

Four-pLOW tractors - 45-59 db hp - 26 tractors in 22 enterprises:

834	2,500	1,000	28	810	292	2,130	3.9	1,115	1.91
802	4,150	100	320	399	374	1,193	2.1	1,044	1.14
817	3,125	1,650	606	529	360	3,145	3.0	787	4.00
114	4,250	500	7	203	322	1,032	1.4	767	1.35
832	3,400	---	338	362	522	1,222	2.5	766	1.60
806	6,000	1,000	258	500	503	2,261	3.8	763	2.96
827	2,450	100	938	572	361	1,971	3.5	751	2.63
820	2,000	---	511	248	235	994	1.3	732	1.36
813	6,200	1,200	355	264	465	2,284	2.2	614	3.72
835	3,650	300	354	171	375	1,200	1.5	603	1.99
820	4,700	400	199	447	399	1,445	2.9	591	2.44
821	3,000	500	179	254	231	1,164	2.4	564	2.06
828	750	100	507	139	218	964	1.4	505	1.91
813	2,450	650	187	179	188	1,204	1.9	466	2.58
812	3,244	487	317	309	299	1,412	3.2	465	3.04
836	4,708	1,254	45	213	345	1,857	2.4	437	4.25
832	6,750	500	250	106	711	1,567	1.3	428	3.66
805	3,550	100	545	73	273	991	0.9	410	2.42
828	3,850	700	87	149	399	1,335	2.1	378	3.53
822	3,655	562	41	145	324	1,072	2.0	362	2.96
107	3,325	250	736	101	302	1,389	1.6	356	3.90
819	3,050	400	57	71	310	838	1.4	278	3.02

Five-pLOW tractors - 60-70 db hp - 11 tractors in 9 enterprises:

806	6,500	1,000	681	569	550	2,800	3.7	857	3.27
133	2,700	400	471	212	235	1,318	1.6	686	1.92
804	6,400	800	371	600	531	2,302	4.0	684	3.37
824	2,600	200	1,305	125	228	1,858	0.9	661	2.81
830	6,250	500	271	392	566	1,729	3.1	661	2.62
830	4,500	1,000	369	266	437	2,072	2.6	542	3.82
834	2,750	500	517	377	307	1,701	5.2	387	4.40
836	2,375	250	544	197	195	1,186	3.2	308	3.86
819	2,350	300	71	77	244	692	1.4	286	2.42

Factors from 114 TRACTOR Enterprises
30 Cost Account Farms, 1970
(Arranged by hours of use per tractor)

Farm number	Average value per tractor \$	Annual cost per tractor					Gal. of fuel per hr. gal	Hours of use per tractor hours	Average cost per hour of use \$
		Deprec	Repairs, labor \$	Fuel \$	All other \$	Total cost \$			
<u>Six and Seven-plow tractors - 80-115 db hp - 14 tractors in 11 enterprises:</u>									
827	5,631	513	2,842	1,192	636	5,183	5.1	1,122	4.62
812	6,514	1,028	1,034	472	518	3,052	3.4	770	3.96
817	7,750	500	1,009	499	823	2,831	3.4	751	3.77
811	7,502	3	190	291	556	1,040	2.3	684	1.52
834	9,186	771	53	548	554	1,926	4.4	637	3.02
107	8,500	800	53	151	710	1,714	1.5	565	3.03
835	4,000	--	293	160	403	856	1.8	497	1.72
821	9,000	1,000	271	309	678	2,258	3.4	464	4.87
824	6,750	500	36	178	598	1,312	2.0	420	3.12
819	6,925	660	41	117	562	1,380	1.5	414	3.33
820	7,650	300	13	103	306	722	2.1	253	2.85
<u>Combinations, 20 tractors in 2 enterprises:</u>									
829	3,591	631	685	293	340	1,949	2.4	641	3.04
833	2,760	202	801	437	293	1,733	2.9	604	2.87
<u>1970 Averages, weighted by numbers of tractors:</u>									
1-plow*	621	57	108	22	46	233	0.9	113	2.07
2-plow	545	63	145	72	75	355	1.2	271	1.31
3-plow	1,273	132	352	167	156	807	1.8	411	1.96
4-plow	3,541	503	342	295	349	1,489	2.5	595	2.50
5-plow	3,764	491	586	285	338	1,700	2.7	549	3.10
6-7-plow	6,879	544	1,026	543	589	2,702	3.8	710	3.80
<u>Annual Averages, all tractors, weighted by number of tractors:</u>									
1970	2,127	233	395	214	216	1,058	2.3	437	2.42
1969	1,954	236	302	177	207	922	2.2	403	2.29
1968	1,797	208	305	174	165	852	2.0	421	2.03
1967	1,704	185	289	172	158	804	2.0	442	1.82
1966	1,468	187	235	154	140	716	1.8	461	1.55

* See next page for definition of plow ratings

AVERAGE COST PER TRACTOR, 1970
184 Tractors on 30 Cost Account Farms

Item	Plow rating*					
	One	Two	Three	Four	Five	Six-Seven
Number of tractors	11	48	54	26	11	14
Hours per tractor	113	271	411	595	549	710
Gal of fuel per hour	0.9	1.2	1.8	2.5	2.7	3.8
Cost per hour, \$	2.07	1.31	1.96	2.50	3.10	3.80
	\$	\$	\$	\$	\$	\$
Depreciation	57	63	132	503	491	544
Repairs, maintenance	67	93	257	248	539	790
Farm labor	41	51	95	94	47	236
Fuel	22	72	167	295	285	543
Oil, grease, anti.	5	11	25	29	23	48
Insurance	2	3	8	17	26	28
Interest	17	31	88	247	264	444
Building use	17	29	25	43	20	63
All other	5	2	10	13	5	6
Cost for year	233	355	807	1489	1700	2702

* Plow rating	Drawbar Hp range
1	10 - 19
2	20 - 29
3	30 - 44
4	45 - 59
5	60 - 79
6	80 - 99
7	100 - 115

Factors from 58 TRUCK Enterprises
28 Cost Account Farms, 1970
(Arranged by cost per truck)

Farm number	Average value per truck \$	Annual cost per truck					Miles per gallon of fuel miles	Miles of use per truck miles	Average cost per mile of use ¢
		Deprec	Repairs, labor	Fuel	All other	Total cost			
<u>Large Trucks, 56 trucks in 26 enterprises:</u>									
827	2,481	487	1,614	621	557	3,279	5	10,342	31.7
802	5,900	200	859	851	689	2,599	7	19,668	13.2
830	700	200	616	422	331	1,569	*	*	*
829	1,050	350	454	268	342	1,414	*	*	*
819	1,461	294	240	360	425	1,319	*	*	*
802	2,300	200	340	353	361	1,254	6	7,010	17.9
828	800	200	493	119	263	1,075	9	3,299	32.6
833	2,284	90	356	356	199	1,001	*	*	*
822	842	153	242	213	268	876	6	3,819	22.9
836	2,850	300	21	100	409	830	*	*	*
816	1,750	500	2	66	242	810	*	*	*
821	2,300	500	8	45	223	776	*	*	*
107	820	40	250	280	153	723	4	4,000	18.1
832	420	10	442	121	143	716	*	*	*
830	250	100	318	90	162	670	*	*	*
835	1,550	100	79	55	435	669	5	880	76.0
820	350	100	303	51	149	603	*	*	*
824	1,494	112	84	47	203	446	11	1,636	27.3
802	650	100	71	76	113	360	*	*	*
802	225	50	105	73	58	286	*	*	*
834	150	100	85	16	49	250	*	*	*
826	522	28	95	42	76	241	*	*	*
820	112	25	67	25	97	214	*	*	*
820	75	--	3	9	156	168	*	*	*
802	275	50	6	27	55	138	*	*	*
821	375	50	8	15	37	110	*	*	*

Factors from 58 TRUCK Enterprises
28 Cost Account Farms, 1970
(Arranged by cost per truck)

Farm number	Average value per truck \$	Annual cost per truck				Total cost \$	Miles per gallon of fuel miles	Miles of use per truck miles	Average cost per mile of use ¢
		Deprec	Repairs, labor \$	Fuel \$	All other \$				
<u>Small Trucks, 64 trucks in 32 enterprises:</u>									
832	1,030	520	357	451	321	1,649	10	15,000	11.0
812	1,950	700	274	244	272	1,490	10	8,169	18.2
802	1,200	--	827	335	253	1,415	8	8,825	16.0
830	2,638	553	331	187	276	1,347	8	5,000	26.9
802	475	50	918	195	136	1,299	5	3,201	40.6
812	600	500	319	273	136	1,228	11	9,929	12.4
833	908	263	299	410	213	1,185	*	*	*
823	400	200	513	335	126	1,174	7	6,972	16.8
802	2,050	100	359	444	266	1,169	8	11,718	10.0
821	1,600	400	291	240	195	1,126	*	*	*
828	600	400	239	162	202	1,003	19	9,948	10.1
834	850	300	320	206	176	1,002	*	*	*
811	2,250	500	--	194	243	937	12	7,000	13.4
816	900	200	184	43	483	910	*	*	*
827	676	175	345	257	133	910	9	7,970	11.4
805	1,700	400	13	262	228	903	9	7,000	12.9
822	1,122	204	235	153	288	880	*	*	*
829	1,346	372	143	115	239	869	*	*	*
817	558	251	349	118	139	857	*	*	*
824	192	38	482	85	230	835	23	5,974	14.0
835	400	200	317	170	81	768	9	4,800	16.0
806	1,050	300	52	140	270	762	12	5,980	12.7
819	747	122	163	189	230	704	*	*	*
836	959	277	141	111	169	698	9	3,892	17.9
804	1,050	300	141	78	159	678	*	*	*
114	350	100	293	82	112	587	*	*	*
114	1,350	100	114	142	221	577	12	6,011	9.6
813	200	400	79	65	14	558	*	*	*
802	288	25	81	93	66	265	6	3,170	8.4
831	175	50	52	41	91	234	6	690	33.9
826	250	--	80	24	101	205	*	*	*
820	250	100	5	29	58	192	*	*	*

Factors from 58 TRUCK Enterprises
28 Cost Account Farms, 1970
(Arranged by cost per truck)

Farm number	Average value per truck \$	Annual cost per truck					Miles per gallon of fuel miles	Miles of use per truck miles	Average cost per mile of use ¢
		Deprec	Repairs, labor	Fuel	All other	Total cost			
<u>1970 Averages, weighted by numbers of trucks:</u>									
Large Trucks	1,524	214	445	271	287	1,217	5**	7,793	27.5**
Small Trucks	870	233	274	210	194	911	10***	6,962	13.5***
<u>Annual Averages, all trucks, weighted by number of trucks:</u>									
1970	1,176	224	354	238	238	1,054	8	7,239	18.5
1969	1,139	207	323	224	224	978	8	4,929	17.9
1968	1,163	234	302	211	228	975	9	6,683	14.8
1967	1,055	193	277	194	189	853	7	8,397	14.7
1966	954	184	210	167	196	757	9	6,340	11.6

* Mileage unknown

** Based on 16 large trucks with known mileage

*** Based on 32 small trucks with known mileage

AVERAGE COST PER TRUCK, 1970
120 trucks on 28 Cost Account Farms

Item	Small	Large
Number of trucks	64	56
Miles of use per truck	6,962*	7,793**
Miles per gallon of fuel	10*	5**
Cost per mile, ¢	13.5*	27.5**
	\$	\$
Depreciation	233	214
Repairs, maintenance	201	270
Farm labor	73	175
Fuel	210	271
Oil, grease, antifreeze	15	16
License, road taxes	19	73
Insurance	71	69
Interest	53	88
Building use	33	33
All other	3	8
Cost for year	911	1,217

* Based on 32 small trucks with known mileage.

** Based on 16 large trucks with known mileage