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**1987
CUSTOM RATES
FOR FARM OPERATIONS
IN NEW YORK STATE**

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1987
CUSTOM RATES
For Farm Operations
in New York State

ABSTRACT

Custom rates for farm operations in New York State are summarized from questionnaires distributed by Extension agents. Ranges and average rates per unit are presented for all responses and for the middle third of all responses. Rental rates are also presented for farm equipment included in the questionnaire responses.

Acknowledgements

Appreciation is expressed to each farmer and custom operator who responded to the questionnaires on which this survey was based. Their efforts, interest, and cooperation were essential in the process of gathering the data summarized in this publication for the benefit of the agricultural industry in New York State.

Also, the author appreciates reviews of this report and helpful comments by Professors George Casler and Wayne Knoblauch of the Department of Agricultural Economics.

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1987 CUSTOM RATES FOR FARM OPERATIONS
IN NEW YORK STATE

Darwin P. Snyder¹

Introduction

Custom rate surveys have been conducted in recent years in New York for 1970, 1976, and 1982. This current study was designed to provide up-to-date information on an important topic of interest to a large cross-section of New York farm operators.

Custom rates increased significantly from 1970 to 1982. Moldboard plowing rates doubled from \$7 to \$14 per acre. Combining corn rates increased from \$15 to \$26 per acre. The custom rate for baling hay increased from \$0.15 to \$0.28 per bale during this 12 year period. These rate increases are consistent with changes with production costs in general on New York dairy farms.

The Index of Prices Paid by New York dairy farmers includes all of the cost items that affect custom rates. Even though feed costs comprise the largest component in the Index and do not affect custom rates, the Index does indicate the direction of costs in a general sense. During the period from 1970 to 1982, the Index of Prices Paid by New York dairy farmers increased by 174 percent.²

Another source of data used to track changes in costs is the annual New York Dairy Farm Business Summary. These data also show that production costs increased rapidly and significantly between the 1970 and 1982 custom rate surveys. Costs, excluding debt interest and purchased cattle, equipment, and real estate, increased from \$535 to \$1,524 per cow or 185 percent during that period. In contrast, dairy farm production costs increased from \$1,524 to \$1,676 per cow or only 10 percent from 1982 to 1987, the five year period between the most recent custom rate surveys.

With these economic trends in mind, it is not surprising to find that custom rates have not continued to increase in the 1980's as they did in the 1970's. Custom operators provide two basic resources - labor and equipment. As costs for these resources change over time, one can expect custom rates to change in the same direction. Equipment costs having a direct effect on rates include fuel, repairs, new equipment prices, interest, and insurance.

Based on estimations of the weight these components contribute to a variety of custom rates, Table 1 uses indexes for 1970, 1982, and 1987 to estimate what the average change in custom rates might be. From Table 1, one might expect custom rates to have more than tripled from 1970 to 1982 when, in fact, the increase was about double. On the other hand, the table indicates cost increases of nearly seven percent in custom rates from 1982 to 1987. The results of the 1987 custom rate survey as shown in the following tables do, in fact, reflect a general increase of five to 10 percent over that five year period.

¹Research Associate at Cornell University.

²Derived from Index of Prices Paid published annually in New York Economic Handbook, Department of Agricultural Economics, Cornell University, Ithaca, New York.

Table 1. Changes in Costs of Custom Rate Components (1977=100)

Item	Esti- mated Weight*	Indices**			1970-82 Change		1982-87 Change	
		1970	1982	1987	Actual	Weighted	Actual	Weighted
	%	%	%	%	%	%	%	
Wages	15	60	141	195	+135	+20.3	+38	+5.7
Machinery-deprec., repair, housing	40	50	161	189	+222	+88.8	+17	+6.8
Fuel, lube	25	53	209	176	+294	+73.5	-16	-4.0
Interest	12	35	161	134	+360	+43.2	-17	-2.0
Insurance, services, etc.	8	44	143	148	+225	+18.0	+3.5	+0.3
Totals	100					+243.8		+6.8
All prices paid by NY dairy farmers		54	148	149	+174		+0.7	

*Estimates by author with reference to New York Farm Cost Account records.

**New York Economic Handbook, several annual editions, Department of Agricultural Economics, Cornell University, Ithaca, New York.

Procedure

The study results do not deal with calculated or estimated costs of labor and equipment to do various farm operations. Rather, the results reflect prices actually paid by farmers who hired the work done or prices charged by custom operators.

A survey form was prepared and distributed to Extension agents throughout the State. They, in turn, distributed the form to their clientele and solicited their response. Survey forms were received, tabulated, and summarized by the author and his staff. Responses to the basic farm custom rate survey totaled 864 and provide the main body of data for this report. These results represent actual custom rates paid in 1987 by users in the field.

Survey responses were much appreciated. Each respondent received a copy of the completed publication from the author.

Survey Results

Custom rates charged and paid for most farm operations varied considerably. Rates were most commonly based on units of physical output - acres, bales, tons, etc. In those cases, size of equipment and efficiency were more important to the custom operator than to the buyer of the service. On this basis, rates can be expected to vary because of field conditions, field size, and distance. Competition in the area and importance of custom work to both parties are also factors that affect rates.

In some cases and for some jobs, custom rates were based on time. When hourly rates are charged, size of equipment and operator performance are important considerations to the customer.

Most custom rates included fuel costs. When fuel was a significant factor, the data are presented for the custom operation with and without fuel. In general, the difference does not reflect the cost of fuel.

The format for the survey results shows the number of observations for each operation to indicate the amount of information on which the rates are based. The range of charges reported is given as well as the average.

A single "typical" rate was difficult to identify. Some measure of the most common rates are provided by data for the range and average of the middle third of the number of reports for each operation. Rates for clusters or groups of reports within a narrow range of rates are also shown. Rates charged by a known number of operators will help the reader determine the significance of the survey results.

The survey data are presented in the most meaningful way possible within the limits of the descriptions of equipment provided by the respondents. Every reasonable effort was used to provide indications of the variation, range, and magnitude of the rates paid and/or charged for these custom operations.

Throughout the report, custom rates include charges for the operator of the equipment as well as for the equipment itself. The last page in the report summarizes the rental rates of various items of farm equipment reported by those who also reported custom rates.

The custom rates presented in this report are averages of rates paid by farm operators during 1987. They are not intended to be recommended rates. However, for those who are considering hiring custom work, these data will provide a guideline for rates a farmer can expect to pay for various types of work.

Operators who do or anticipate doing custom work for farmers should also consider these results as guidelines for their receipts. For some operations the range in rates was great and reflected differing conditions and demands for the work. The rates in the report do not necessarily cover all costs associated with the labor and equipment necessary to do the job. Custom operators should estimate their individual labor and equipment costs to know whether the prevailing custom rates will adequately cover their costs.

Additional copies of this report are available from local Extension agents or directly from the author.

Table 2.

Summary of Common Custom Rates
Custom Rates, New York, 1987

Custom Job	Number	Middle Third of All Reports*	
		Rate Per Acre	
		Range	Average
		\$	\$
Plowing - moldboard	44	14-16	15
chisel	10	10-12	11
Disc	23	7-10	8
Harrow	8	6-9	7
Spread lime - w/o material	17	5-6	5
w/material	51	23-28	25/ton
Spread fertilizer - bulk dry	30	5-6	5
liquid	20	5-7	5
anhydrous amonia	7	6-6	6
side dressing	9	7-8	7
Plant corn - conventional	44	10-12	10
no-till	19	18-20	20
Drill small grain - conventional	12	7-10	8
no-till (all reports)	8	15-25	20
Seed hay crops - conventional	13	7-10	9
no-till	4	16-24	20
Pesticide application - ground	83	5-6	6
air	6	5-6	6
Mow, condition hay	20	8-10	9
Mow, bale, store hay	14	0.60-0.80	0.69/bale
Bale hay - conventional	19	0.25-0.35	0.31/bale
- large round	28	5-6	5/bale
Combine - small grain excl. fuel	29	18-20	20
incl. fuel	54	20-22	20
- shelled corn excl. fuel	26	25-25	25
incl. fuel	44	25-28	25
- HM ear corn excl. fuel	4	25-27	26
incl. fuel	6	28-30	30
Pick corn - excl. fuel	7	15-20	19
incl. fuel	11	20-25	22
Dry corn	16	3.3-4.2¢	3.6¢/bu./ point
Silage harvesting excl. fuel	7	25-35	31
incl. fuel	5	35-40	37
Silage harvesting excl. fuel	10	45-55	50/hour
incl. fuel	11	50-60	51/hour
Rotary mowing	4	6-10	9
Rotary mowing	20	20-30	25/hour
Bulldozing (75-120hp)	8	50-60	55/hour
Backhoeing (51-70hp)	4	35-40	38/hour
Skid steer loader (all reports)	7	8-60	32/hour
Install field tile - backfilled excl. tile	5	0.45-0.50	0.46/foot

*Unless otherwise specified. Averages are rounded to the nearest dollar except in a few obvious cases.

Table 3.

Tillage Operations
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Plow - moldboard						
Excluding fuel	28	9-20	14	10	12-15	14
Including fuel	106	5-28	16	36	15-18	16
All	134	5-28	15	44	14-16	15
Clusters:	30	10-12				
	48	15-17				
	22	@ 20				
Plow - chisel	32	5-25	12	10	10-12	11
Plow - disc	17	5-25	14	5	12-15	14
Plow - subsoil	11	3-25	12	3	10-12	11
Discing						
Excluding fuel	15	4-16	8	5	6-8	7
Including fuel	56	3-25	9	18	8-10	9
All	71	3-25	9	23	7-10	8
Clusters:	35	4-8				
	17	@ 10				
Harrow	26	2-18	8	8	6-9	7
Cluster:	11	5-6				
Cultimulch	25	4-20	9	9	6-10	8
Rock picking	8	2-10	6			
Cultivate	9	5-15	8			

Table 4.

Lime and Fertilizer Application
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre*					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Apply Lime						
Excluding material	49	2-12	6	17	5-6	5
Including material	155	12-36	25/ton	51	23-28	25/ton
Clusters:	44	20-23				
	34	24-27				
	30	28-30				
Apply Fertilizer						
Dry bulk	92	1-10	5	30	5-6	5
Clusters:	27	3.00-4.50				
	39	5.00-6.75				
Liquid	62	3-9	6	20	5-7	5
Clusters:	22	4.00-4.75				
	14	6.00-6.66				
Anhydrous	21	4-12	6	7	6-6	6
Cluster:	8	5.00-5.50				
Sidedress	27	5-20	8	9	7-8	7
Cluster:	13	6.00-7.50				

*Except as noted.

Table 5.

Planting Operations
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Plant Corn						
Conventional	134	4-26	11	44	10-12	10
Clusters:	37	5-8				
	54	10-12				
	20	14-15				
No-till	57	7-28	20	19	18-20	20
Clusters:	22	18-20				
	10	@ 25				
Drill Small Grain						
Conventional	38	5-18	9	12	7-10	8
Clusters:	14	7-8				
	8	@ 10				
No-till	8	15-25	20			
Seed Hay Crops						
Conventional	37	4-25	10	13	7-10	9
Cluster:	13	8-10				
No-till	14	12-45	23	4	16-24	20
Cluster:	5	14-16				

Table 6.

Pesticide Application
(excluding materials)
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Ground Application	247	2-20	6	83	5-6	6
Clusters:	51	4.00-4.75	4.32			
	63	5.00-5.75	5.13			
	58	6.00-6.50	6.12			
	33	7.00-7.77	7.24			
	18	8.00-8.50	8.15			
Air Application						
Fixed wing	18	4-10	6	6	5-6	6
Helicopter	7	6-10	8			

Table 7.

Hay Harvest
Custom Rates, New York, 1987

Job	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
		rates in dollars per acre				
Mow, condition	58	4-28	10	20	8-10	9
Clusters:	8	@ 8				
	16	@ 10				
Rake	21	3-15	6	7	5-6	5
Cluster:	6	@ 5				

		rates in dollars per bale				
Bale - conventional	55	0.15-1.05	0.36	19	0.25-0.35	0.31
Cluster:	31	0.25-0.35				
Mow, rake, bale	35	0.25-1.25	0.66	11	0.50-0.75	0.60
Clusters:	10	0.40-0.50				
	6	@ 1.00				
Mow, bale, store	40	0.28-1.50	0.76	14	0.60-0.80	0.69
Clusters:	12	0.50-0.60				
	6	@ 1.00				
Bale - large round	84	1-14	6	28	5-6	5
Clusters:	32	@ 5				
	15	6-7				

Table 8.

Grain Harvesting
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Combine						
Small Grains						
Excluding fuel	85	12-30	20	29	18-20	20
Including fuel	160	8-33	21	54	20-22	20
All	245	8-33	21	81	20-22	20
Clusters:	16	@ 15				
	28	@ 18				
	89	@ 20				
	25	@ 22				
	36	@ 25				
High Moisture Ear Corn						
Excluding fuel	14	22-33	27	4	25-27	26
Including fuel	18	25-46	30	6	28-30	30
All	32	22-46	29	10	25-30	28
Clusters:	11	@ 25				
	9	@ 30				
Shelled Corn						
Excluding fuel	80	17-35	25	26	25-25	25
Including fuel	130	17-40	26	44	25-28	25
All	210	17-40	26	70	25-28	25
Clusters:	29	@ 20				
	75	@ 25				
	38	@ 30				
Soybeans	6	20-40	26	2	22-25	24
Dry beans	4	20-30	24			

Table 9.

Grain Harvesting
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
	\$		\$		\$	\$
Pick Ear Corn						
Excluding fuel	19	8-25	18	7	15-20	19
Including fuel	33	5-45	22	11	20-25	22
All	52	5-45	20	18	17-25	21
Clusters:	9	15-16				
	12	@ 20				
	13	@ 25				
Pick, grind HMEC	13	15-35	27	5	28-30	29

Table 10.

Drying Corn
Custom Rates, New York, 1987

Job	Rate in cents per bushel per point of moisture removed					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
	¢		¢		¢	¢
Drying corn	48	1.2-8.0	3.8	16	3.3-4.2	3.6
Clusters:	8	2.0-3.2				
	7	@ 3.3				
	10	3.4-4.0				
	7	4.2-4.6				
	6	4.9-5.2				

Table 11.

Hay Crop and Corn Silage Harvesting
Field Chopping and Silo Filling
Custom Rates, New York, 1987

Job	Rate in Dollars Per Acre					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
	\$		\$		\$	\$
Silage harvesting						
Excluding fuel	23	18-60	33	7	25-35	31
Including fuel	17	15-72	40	5	35-40	37
All	40	15-72	36	14	30-40	35
Clusters:	5	@ 20				
	7	@ 30				
	6	@ 35				
	5	@ 40				
	5	@ 50				

Units* Furnished	Total Reports	Rate in Dollars Per Acre (all reports)					
		\$15 to 24	\$25 to 34	\$35 to 44	\$45 to 54	\$55 to 64	\$65 to 74
	No.	----- number of reports -----					
10	1			1			
12	2	1	1				
13	4		2	1	1		
14	1			1			
15	6	4	1	1			
17	1	1					
19	2				1	1	
20	1			1			
22	2		1				1
23	4			3	1		
24	4		2	1		1	
25	2		1		1		
27	2		1	1			
28	3	1		1	1		
29	1		1				
31	1					1	
32	1			1			
36	2			1	1		

*Unit values: 12 units = chopper, power unit, and operator
4 units = one additional worker, tractor or truck
1 unit = one blower or wagon

Table 12. Hay Crop and Corn Silage Harvesting
Field Chopping and Silo Filling
Custom Rates, New York, 1987

Job	Rate in Dollars Per Hour					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Silage harvesting						
Excluding fuel	30	30-120	55	10	45-55	50
Including fuel	35	20-120	58	11	50-60	51
All	65	20-120	57	21	50-60	51
Clusters:	6	@ 40				
	6	@ 45				
	18	@ 50				
	4	@ 65				
	4	@ 95				

Units* Furnished	Total Reports	Rate in Dollars Per Hour (all reports)								
		\$15 to	\$25 to	\$35 to	\$45 to	\$55 to	\$65 to	\$75 to	\$85 to	\$95 to
		24	34	44	54	64	74	84	94	120
	No.	----- number of reports -----								
12	4		1	2	1					
13	7	1	2		2		2			
14	6			1	4	1				
15	9		1	5	2		1			
16	4			1	3					
17	4				1	1				2
18	6				2	1		1	1	1
19	2			1	1					
20	3				3					
21	2				1	1				
22	3							2		1
23	4				2			1		1
24	5				1	2	2			
25	3			1	1					1
26	1						1			
28	2									2

*Unit values: 12 units = chopper, power unit, and operator
4 units = one additional worker, tractor or truck
1 unit = one blower or wagon

Table 13. Fruit and Vegetable Operations
Custom Rates, New York, 1987

Job	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Grape trimming	2	@	50 per acre			
Harvesting:						
Grapes - (rates per ton)						
Excluding hauling	24	15-54	28	8	26-28	27
Including hauling*	85	20-46	32	29	30-33	31
Snap beans, proc.	4	20-40	31 per ton			
Sweet corn, proc.	9	4.50-7.50	6.08 per ton			

*Chautauqua County only.

Table 14. Tractor, Driver, Rotary Mower
Custom Rates, New York, 1987

	Avg. Tractor Size, Hp	All Reports			Middle Third		
		No.	Range	Average	No.	Range	Average
			\$	\$		\$	\$
Rate per acre		10	5-20	10	4	6-10	9
Rate per hour							
All	56	60	10-65	27	20	20-30	25
5 foot cut	42	31	10-45	25	11	20-25	24
6-7 foot cut	61	19	10-40	26	7	20-30	25
9-15 foot cut	89	10	15-65	37	4	28-40	35

Tabel 15.

Tractor and Driver Only
Custom Rates, New York, 1987

Tractor Size	PTO Hp		Number of Reports	Tractor and Driver				Tractor Only*	
	Range	Avg.		Rate/Hour		Rate/Hp Hour		Rate/Hp Hour	
				Range	Avg.	Range	Avg.	Range	Avg.
				\$	\$	¢	¢	¢	¢
Class 1	28-49	36	5	14-30	19	32-71	53	19-53	36
Class 2	50-89	66	10	8-45	24	10-90	37	03-78	27
Class 3	90-134	100	7	10-50	23	08-50	23	03-44	17
Class 4	135-225	167	8	25-60	38	12-36	24	10-31	20
All	28-225	96	30	8-60	27	08-90	33	03-78	25

*Tractor and driver rate per hour reduced by \$6 for labor costs.

Table 16.

Trucking
Six Wheel Trucks
Custom Rates, New York, 1987

Distance Rate Basis	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
<u>Under 20 Miles:</u>						
Cost per: loaded mile	38	0.83-14.93	4.82	12	2.80-4.80	3.56
ton	38	2-20	5	12	4-6	5
ton mile	38	0.12-2.00	0.63	12	0.35-0.58	0.45
<u>20 to 100 Miles:</u>						
Cost per: loaded mile	26	1.00-6.75	2.55	8	1.76-2.70	2.14
ton	26	3-37	12	8	7-11	8
ton mile	26	0.13-1.20	0.37	8	0.24-0.35	0.27
Cost per hour	8	25-50	37			

Table 17.

Trucking
Ten Wheel Trucks
Custom Rates, New York, 1987

Distance Rate Basis	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
<u>Under 20 Miles:</u>						
Cost per: loaded mile	19	2.64-11.00	6.03	7	5.00-6.00	5.37
ton	19	1-6	4	7	3-5	4
ton mile	19	0.19-0.60	0.39	7	0.33-0.50	0.39
<u>20 to 100 Miles:</u>						
Cost per: loaded mile	25	0.87-8.00	2.97	9	2.50-3.00	2.70
ton	25	3-12	7	9	6-8	7
ton mile	25	0.05-0.40	0.20	9	0.16-0.21	0.18
Cost per hour	4	30-50	35			

Table 18.

Trucking
Tractor Trailer Trucks
Custom Rates, New York, 1987

Distance Rate Basis	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
<u>Under 100 Miles:</u>						
Cost per: loaded mile	36	1.00-18.33	5.47	12	3.83-5.74	4.50
ton	36	1-14	8	12	6-10	7
ton mile	36	0.05-0.83	0.25	12	0.18-0.26	0.22
<u>100 Miles and Over:</u>						
Cost per: loaded mile	20	0.98-5.50	2.35	6	2.00-2.40	2.08
ton	20	8-46	22	6	14-25	19
ton mile	20	0.07-0.25	0.11	6	0.10-0.12	0.10

<u>Commodities</u>						
<u>Cost Per Ton Mile:</u>						
Grain - under 100 miles	12	0.05-0.30	0.17			
100 miles & over	7	0.08-0.11	0.09			
Grapes - under 100 miles	14	0.13-0.83	0.34			
100 miles & over	5	0.12-0.25	0.17			

Table 19.

Hourly Rates for Tractor Work
Custom Rates, New York, 1987

Job	Tractor PTO-Hp Range	Total Reports No.	Rates in Dollars per Hour \$
<u>Tillage Operations</u>			
Plow, moldboard	90-134	3	24, 30, 44
	134-225	2	35, 64
Chisel	134-225	1	35
Disc, tandem	under 50	1	17
	50-89	1	20
	90-134	1	24
	134-225	1	58
Rotovate	under 50	2	25, 25
<u>Planting and Growing Operations</u>			
Plant corn - 4R	90-134	1	24
	6R	1	38
Drill, grain	90-134	1	36
Spray grapes	under 50	3	20, 25, 60
Rock picker	90-134	2	35, 50
<u>Miscellaneous Operations</u>			
Dig post holes	under 50	1	10
	50-89	1	20
Spread manure	90-134	3	35, 35, 35
Bucket loader	under 50	1	14
	50-89	4	25, 28, 30, 30
	90-134	1	20
Rotary mower -	5 ft	31	25 average
	6-7 ft	19	26 average
	9-15 ft	10	37 average

Table 20.

Bulldozing
Custom Rates, New York, 1987

Machine Size	Rate in Dollars Per Hour					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
		\$	\$		\$	\$
Small						
Under 75 hp (average 52 hp)	49	14-70	37	17	35-40	36
Clusters:	8	@ 30				
	15	@ 35				
	9	@ 40				
	5	@ 45				
Medium						
75-120 hp (average 96 hp)	24	35-80	55	8	50-60	55
Clusters:	3	@ 35				
	4	@ 50				
	3	@ 60				
Large						
Over 120 hp (average 198 hp)	18	35-100	70	6	60-80	72
Clusters:	3	@ 50				
	4	@ 80				
	3	@ 95				

Table 21.

Backhoe Work
Custom Rates, New York, 1987

Machine Size	Rate in Dollars Per Hour					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
	\$		\$		\$	\$
Small						
50 hp & under (average 43 hp)	20	15-40	32	6	35-35	35
Clusters:	3	@ 30				
	11	@ 35				
Medium						
51-70 hp (average 63 hp)	14	25-55	38	4	35-40	38
Clusters:	4	@ 35				
	4	@ 40				
Large						
Over 70 hp (average 86 hp)	12	35-65	45	4	40-45	43
Clusters:	3	@ 35				
	3	@ 45				

Table 22. Skid Steer Loader and Operator
Custom Rates, New York, 1987

Number of Reports	Machine Size		Cost Per Hour	
	Range	Average	Range	Average
	hp	hp	\$	\$
7	28-42	35	8-60	32

Table 23. Field Tile Installation
Custom Rates, New York, 1987

Job	Rate in Dollars Per Foot					
	All Reports			Middle Third		
	No.	Range	Average	No.	Range	Average
	\$	\$	\$	\$	\$	\$
Installation - excluding tile						
No backfilling	15	0.38-0.42	0.48	5	0.42-0.50	0.47
Backfilled	17	0.35-1.00	0.49	5	0.45-0.50	0.46
Installation - including 4" tile						
No backfilling	14	0.50-1.10	0.72	4	0.70-0.73	0.71
Backfilled	20	0.44-2.50	0.86	6	0.74-0.80	0.78

Table 24.

Farm Equipment
Rental Rates, New York, 1987

Item - Description	Unit	All Reports		
		No.	Range	Average
			\$	\$
Silage bagger				
Without bag	bag	3	400-550	483
With bag	bag	13	650-850	780
Cluster:	bag	7	@ 800	
Baler - large round	bale	7	3-6	4
Grain drill				
Conventional	acre	8	2.50-6.00	4.44
No-till	acre	2	15.00-18.00	16.50
Fertilizer spreader - bulk	acre	4	2.00-8.00	4.13
	ton	9	3.00-10.00	5.67
Lime spreader - bulk	ton	3	1.00-5.00	3.00
Scales - beef	day	1	@ 20	
sheep	day	1	@ 10	
Seeder - hay crop	acre	3	5-6	5.33
Skid steer loader	hour	5	13-20	16
	day	5	65-100	82
Tractors - 92 hp average	hour	22	7-52	18
	hp hour	22	0.09-0.37	0.19