A.E. Ext. 85-22

PRICES PAID For STANDING HAY, SILAGE And CORN GRAIN CROPS

New York State 1984

Darwin P. Snyder

It is the policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

CONTENTS

	Page
Introduction and Purpose	. 1
STANDING HAY PRICES	. 1
Procedure	. 2
Results of The Survey	. 3
Mostly Legume Hay	. 3
Statewide Results	. 3
Regional Results	. 7
Mostly Grass Hay	. 7
Statewide Results	. 7
Regional Results	. 10
Summary and Conclusions	. 10
SILAGE AND CORN GRAIN CROP PRICES	. 11
Procedure	. 11
Results of The Survey	. 12
SUMMARY AND CONCLUSIONS	. 20
APPENDIX I - Survey Form	. 21

ACKNOWLEDGMENTS

Appreciation is expressed to each person who responded to the questionnaire on which this survey was based. Their efforts and interest were essential in providing the data summarized here for the benefit of the New York agricultural industry.

PRICES PAID FOR STANDING HAY, SILAGE, AND CORN GRAIN CROPS

Introduction and Purpose

Dairy herds and dairy farms continue to steadily increase in size. In some cases, the herd size increases more rapidly than the land base on which feed is grown. When this situation occurs, a market develops for various field crops. Thus, it is not uncommon for hay to be sold standing or for other forage crops or various grain crops to be sold by or to farmers.

In the fall of 1984, a Crop Price Survey form was distributed by county extension agents to obtain current prices paid for various field crops sold at the farm level. Those results are included in this publication. The survey also was designed to obtain current information on rental rates for various real estate items which are published in a separate report.* A copy of the survey form is included in this report as Appendix I.

STANDING HAY PRICES

There are many factors that should influence the price paid for standing hay. These would include the type of hay; that is, the portion of the crop that is legume and/or grass, and the kind and quality of the legume and grass hay.

A second factor that should affect price is the portion of the crop purchased. Hay crops usually produce well enough that two or three cuttings may be harvested each crop year in New York State. This depends on the type of hay, weather, and the operator's management with regard to fertilization and cutting schedules. Quantity and quality of hay harvested also varies for each cutting.

Finally, one might expect distance to have an effect on the price a buyer would be willing to pay for standing hay.

Standing hay is purchased for various reasons and under various conditions of supply and demand. When standing hay is purchased, the buyer normally uses his own equipment and labor to harvest the crop. Therefore, the logistics of moving equipment and, usually, the harvested crop, discourage the purchase of standing hay located very far from the buyer's farm.

These were the factors thought to be important in analyzing prices that were paid for standing hay in New York State during 1984. Section III on the questionnaire in the Appendix shows the format used to obtain the information used in the following discussion.

^{*}Real Estate Rental Rates, New York State, 1984, A.E. Res. 85-17, D.P. Snyder, Department of Agricultural Economics, Cornell University, Ithaca, NY 14853-7801.

Procedure

Respondents to the questionnaire provided information for 272 parcels of standing hay purchased in 1984. The results are analyzed for the State as a whole and also for three general regions.

To make the comparisons as meaningful as possible, data for the State and each region were sorted first on the basis of the type of hay purchased. This sort was intended to identify two basic groups based on quality. Two types of hay were described on the survey form - mostly legume hay and mostly grass hay. Next, these two types of hay were sorted by the number of cuttings harvested by the purchaser. The number of cuttings purchased was assumed to affect the quantity as well as quality of hay purchased. These two basic factors - type of hay and number of cuttings - provided the most meaningful results from the study.

Two other items of information were requested on the questionnaire. These dealt with distance from the user (usually the purchaser) and price per bale if purchased on that basis. Neither of these factors were significant enough to affect the results of the study. Distances varied from zero to 12 miles from the point of use. However, half of the parcels were less than two miles and about 80 percent were four miles or less away.

Prices paid for standing hay per bale of hay harvested varied from nine cents to \$1.25 per bale. There was no apparent reason for the wide variation in prices when type of hay or "cutting" groups were considered. Price per bale seemed to vary without regard to these two factors, but it is reasonable to expect that judgments about quality did have some influence on price.

When data for the parcels of standing hay were sorted by quality, two major and one minor groups resulted. Of the total 272 parcels, 125 parcels were judged to be mostly legume hay and 128 parcels were classified as mostly grass hay. The other 19 parcels were judged by the respondents to be composed of equal parts of legume and grass hay. The number of parcels in this latter group was too small to further sort into cutting groups as a measure of quantity of hay purchased. Therefore, only the two larger groups were analyzed. "Mostly legume hay" implies some grass in the crop just as "mostly grass hay" implies that less than half the crop was legume.

The number of cuttings harvested will normally affect the price paid for standing hay because, in general, more cuttings indicate a greater portion of the crop purchased. Of course, it must be realized that weather conditions, cultural practices, and age of the seeding can affect this relationship. However, as a general rule, the relationships shown in Table 1 may be assumed in estimating the quantity purchased by the cuttings harvested. These general relationships are based on experience with hay yield research.

Table 1. Hay Crop Cutting Percentages

	Percent of	Hay Crop Harvest	ed in Cutting:
Нау Туре	1	2	3
		percent	
Mostly legume	45	35	20
Equal legume & grass	55	35	10
Mostly grass	65	35	~ -

Results of The Survey

In the following analysis, the results are discussed for the State as a whole and for three general regions within the State. Parcels are grouped by type of hay and then by number of cuttings purchased for each area.

Figure 1 outlines the three regions into which the parcels of standing hay have been grouped. The Southern New York region extends across the east-west width of the southern half of the State. (Prices paid in the southern Hudson Valley were not dissimilar to the rest of the region as one might expect.) The Northeast New York region includes counties north and northwest of the capital district. This includes the northern Hudson and Lake Champlain areas as well as the St. Lawrence valley. Finally, counties west of Oneida Lake, south of Lake Ontario, and in the Finger Lakes region are included in the Central and Western New York area.

Mostly Legume Hay

<u>Statewide Results</u> - A total of 125 parcels of standing hay containing a predominance of legume hay were reported for the State. Table 2 shows the number of parcels for each "cutting" group as well as the parcel size and cost per acre. The "all cuttings" group included the whole crop of three cuttings.

Parcel size varied widely for each group and was commonly well below the group average. In the group for "all cuttings", half of the parcels were less than 24 acres in size even though the group average was 39 acres per parcel. The high average size was caused by a few large parcels.

Likewise, the average cost per acre in most of the "cutting" groups was influenced by a few cases where high prices were paid. The cost per acre range was great regardless of quantity of hay purchased as indicated by "cutting" group. In general, cost per acre was higher for multiple cuttings as one would expect. However, the wide range in prices paid suggests that other factors, not easily identified or measured, had a significant effect on the prices paid for some parcels of standing legume hay. These factors could include supply and demand in a locality as well as varying judgment regarding quantity and/or quality of hay in a given parcel.

Cost per acre expressed as a weighted average removed the effect of parcel size on the average cost per acre. Multiple cuttings seemed to be a better buy than did single cuttings.

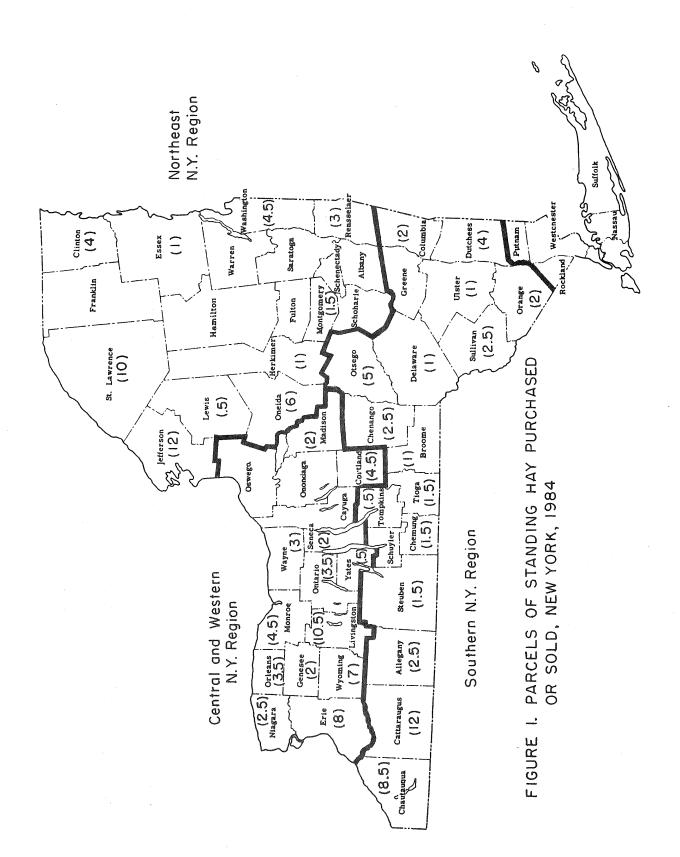


Table 2.

Standing Hay Prices, Mostly Legume Hay, 125 Parcels,
New York State, 1984

Parcel Factors		ed			
	All cuttings	First & second	First only	Second only	Third only
Number of parcels	36	40	26	15	8
Percent of crop	100	80	45	35	20
Acres per parcel:					
Average	39	23	26	24	33
Median	24	18	19	20	25
Range	6-200	5-70	4-100	2-50	12-70
Cost per acre:					
Average	\$42	\$38	\$35	\$26	\$32
Median	35	28	30	25	25
Range	10-85	7-125	10-100	6-75	10-60
Weighted average				The second secon	
cost per acre	\$44	\$35	\$35	\$28	\$31

Table 3.

Standing Hay Prices, Mostly Legume Hay, 36 Parcels,
Southern New York Counties, 1984

Parcel Factors					
	All cuttings	First & second	First only	Second only	Third only
Number of parcels	6	15	10	3	2
Percent of crop	100	80	45	35	20
Acres per parcel:					
Average	43	23	32	15	14
Median	24	19	18	13	14
Range	15-100	6-50	5-100	2-30	12-15
Cost per acre:					
Average	\$42	\$27	\$30	\$20	N/A
Median	36	26	25	. 22	N/A
Range	22-70	7-55	10-75	13-25	N/A
Weighted average					
cost per acre	\$51	\$28	\$29	\$20	\$19

Table 4.

Standing Hay Prices, Mostly Legume Hay, 29 Parcels,
Northeastern New York Counties, 1984

Parcel Factors		ed			
	All cuttings	First & second	First only	Second only	Third only
Number of parcels	10	7	5	6	1
Percent of crop	100	80	45	35	20
Acres per parcel:					
Average	40	30	16	23	30
Median	21	20	20	19	30
Range	6-150	12-70	7-25	10-50	N/A
Cost per acre:					•
Average	\$41	\$43	\$41	\$21	\$35
Median	38	33	30	24	35
Range	10-85	20-75	20-78	11-35	N/A
Weighted average					
cost per acre	\$48	\$44	\$45	\$18	\$35

Table 5.

Standing Hay Prices, Mostly Legume Hay, 60 Parcels,
Central & Western New York Counties, 1984

Parcel Factors	Cuttings Purchased					
	All cuttings	First & second	First only	Second only	Third only	
Number of parcels	20	18	11	6	5	
Percent of crop	100	80	45	. 35	20	
Acres per parcel:						
Average	37	20	25	29	43	
Median	27	15	18	27	42	
Range	6-200	5-70	4-80	7-50	12-70	
Cost per acre:						
Average	\$42	\$43	\$38	\$32	\$27	
Median	35	25	25	25	25	
Range	17-80	9-125	15-100	6-75	10-60	
Weighted average				S TO		
cost per acre	\$39	\$38	\$38	\$38	\$31	

Regional Results - Nearly half of the parcels of standing mostly legume hay reported were in the Central and Western New York region. Figure 1 shows the distribution of the responses within each region. Neither the average nor the median parcel size varied significantly between regions. However, the range in parcel size tended to be greatest in the Central and Western region and smallest in the Southern Region.

Tables 3, 4, and 5 display the various size and cost factors for the purchase of different cuttings in each of the three regions.

Average cost per acre for all cuttings did not vary greatly between the three regions. However, the weighted average cost per acre was highest in the Southern and lowest in the Central and Western Counties. The number of cuttings in the Central and Western region made less difference in the weighted average cost per acre than it did in the other two areas. The parcel average cost per acre tended to decline when only the second or third cuttings were purchased. Otherwise, costs per acre varied within each group for a number of subtle reasons as they did for the State as a whole.

Mostly Grass Hay

<u>Statewide Results</u> - In most cases, only the first cutting of mostly grass hay was purchased. This occurred in 94, or nearly three-quarters of the 128 parcels reported. Thirty-one parcels involved both the first and second cuttings of hay and three parcels involved purchase of the second cutting only.

Table 6 shows several factors for each "cutting" group dealing with parcel size and cost per acre and also the range for these factors. The range in parcel size was great as was the range in cost per acre for each group.

Most parcels were less than 20 acres in size and cost less than \$20 per acre regardless of the number of cuttings harvested. When the effect of parcel size is removed, the weighted average cost per acre declined as less of the crop was purchased. First and second cuttings cost an average of \$22 per acre while the first cutting only cost \$17 per acre.

Table 6.

Standing Hay Prices, Mostly Grass Hay, 128 Parcels,
New York State, 1984

	Cuttings Purchased					
Parcel Factors	First & second	First only	Second only			
Number of parcels	31	94	3			
Percent of crop	100	65	35			
Acres per parcel:						
Average	32	27	14			
Median	16	19	15			
Range	5-140	3-150	8-20			
Cost per acre:						
Average	\$25	\$20	\$15			
Median	15	20	15			
Range	7-80	2-50	9-20			
Weighted average cost per acre	\$22	\$17	\$11			

Table 7.

Standing Hay Prices, Mostly Grass Hay, 54 Parcels,
Southern New York Counties, 1984

i ij

	Cuttings Purchased				
Parcel Factors	First & second	First only	Second only		
Number of parcels	17	36	1		
Percent of crop	100	65	35		
Acres per parcel:					
Average	41	25	8		
Median	30	18	8		
Range	5-140	5-100	N/A		
Cost per acre:			•		
Average	\$26	\$19	\$9		
Median	15	17	9		
Range	7-80	2-50	N/A		
Weighted average cost per acre	\$22	\$15	\$9		

Table 8.

Standing Hay Prices, Mostly Grass Hay, 35 Parcels,
Northeastern New York Counties, 1984

	Cuttings Purchased					
Parcel Factors	First & second	First only	Second only			
Number of parcels	3	30	2			
Percent of crop	100	65	35			
Acres per parcel:						
Average	35	35	18			
Median	20	23	18			
Range	15-70	5-150	15-20			
Cost per acre:						
Average	\$32	\$20	\$20			
Median	15	20	20			
Range	12-70	8-44	20-20			
Weighted average cost per acre	\$21	\$17	\$20			

Table 9.

Standing Hay Prices, Mostly Grass Hay, 39 Parcels,
Central & Western New York Counties, 1984

	Cuttings P	urchased
Parcel Factors	First & second	First only
Number of parcels	11	28
Percent of crop	100	65
Acres per parcel:		
Average	18	21
Median	15	15
Range	5-53	3-120
Cost per acre:		
Average	\$19	\$20
Median	16	20
Range	8 - 35	3-50
Weighted average cost per acre	\$21	\$19

<u>Regional Results</u> - Tables 7, 8, and 9 show the results of several size and cost per acre factors for various quantities of grass hay purchased in the three regions identified for the State.

Over 40 percent of the parcels of standing mostly grass hay reported were in the Southern New York region. Parcel size in the three regions was commonly below 25 acres each although the size range was great for all areas regardless of the number of cuttings harvested.

Well over half of the parcels of standing hay were purchased for less than \$20 per acre. This was true for each region. The weighted average cost per acre of hay declined as fewer cuttings of the crop were harvested. Although the range in cost per acre was great, the average cost per acre for each "cutting" group was quite stable between regions.

Summary and Conclusions

The purchase of standing hay is quite common and evenly distributed throughout New York State. Although the reports received for standing hay purchases are not necessarily representative of all such transactions in the State, they do indicate some characteristics of these purchases. They also indicate some regional differences.

Standing hay purchased in the Southern Counties is likely to contain more grass than legume. The opposite is true for Central and Western Counties. In each area, for the same number of cuttings, mostly legume hay costs more per acre than mostly grass hay as one might expect. Parcel size and cost per acre varies widely regardless of the type of hay or the number of cuttings purchased.

On the average, the cost per acre for all cuttings of mostly legume hay was about \$44; the cost for all cuttings of mostly grass hay was \$22 per acre. Also, the range in cost per acre for each group was very great. These factors, no doubt, are a reflection of differences in land quality and, therefore, quality and quantity of the hay crop purchased.

With costs for purchased standing hay of this magnitude, it is very likely that many of those who buy standing hay are buying hay cheaper than they can grow it themselves. Research from the Farm Cost Account project indicate that, in 1983, total growing costs for both hay and hay crop silage averaged \$91 per acre. When yields, quality, and distance are considered, the purchase of standing hay may be an attractive alternative way of meeting some of the dairy farmer's forage needs.

SILAGE AND CORN GRAIN CROP PRICES

An important part of the Crop Price Survey included prices paid by buyers of field crops after they were harvested. In most cases, these crops were purchased out of storage rather than directly out of the field. The results of this survey represent prices paid or received during 1984.

The major purpose of this part of the survey was to obtain information about prices for forage and grain crops for which such information is not commonly available. Hay and dry shelled corn prices are regularly reported by the New York Crop Reporting Service. However, in recent years there has been an increase in sales of silage and high moisture corn. These were the primary target crops for this survey.

Although the questionnaire did not ask for information about hay or dry shelled corn, some data were received and have been summarized along with the silages and high moisture corn.

Procedure

Respondents to the Crop Price Survey provided information for 232 cash transactions involving the purchase or sale of seven forms of hay and corn crops. These included corn silage, hay crop silage, high moisture ground ear corn, high moisture shelled corn, and whole ear corn as well as some data on dry shelled corn and hay prices.

Responses were received from throughout the State. The results are presented for the State as a whole and for each of three general regions within the State. The three regions are the same as identified in Figure 1 earlier in this report.

Several common factors were summarized and analyzed for each commodity in each region. Moisture content and price per ton of material were the most important factors. Some reported prices included delivery. In these cases, hauling distances and reasonable estimates of hauling charges were used to determine the commodity price.

From the information received, the cost per pound of dry matter was calculated. This factor removes the effect of varying amounts of moisture in each commodity and provides a convenient indication of the cost of the nutrients purchased. Within normal moisture content ranges dry matter and nutrition levels of a sample are generally directly related. There was little evidence that moisture content was considered objectively when the commodity prices were set since there was little or no apparent relationship between moisture content and price per ton.

Results of The Survey

The following seven tables summarize the most meaningful results of the survey. In addition to moisture content, price per ton and price per pound of dry matter, the number of responses and quantity information are shown for each commodity in each region.

The number of responses and quantity information indicate the volume of data on which the other factors are based. In some cases, the number of responses is very small and may not be indicative of average experience. These data are shown merely as an indication of the experience of those farmers who did respond to the questionnaire.

For the quantity information, the average per record and the median or midpoint and range of the group are provided. Also indicated is the total quantity of each material for each region. The other three factors also include information showing the magnitude of the most common experience.

The variation or range of results for each factor was very significant for each commodity. This was especially true for the quantities purchased per record. In most cases, a few large quantity purchases caused the average per record to be significantly above the median or midpoint in the quantity range. In other words, quantities purchased were generally well below the average for the group.

Moisture and price data were more evenly distributed throughout wide ranges. The most common range will eliminate the extreme highs and lows and provide more normal data.

Table 10 shows the harvested crop price information received for corn silage for the State and each region. Half of the records for the State involved purchases of less than 100 tons. The Southern region provided the largest number of responses of any region and involved the smallest quantity per response. As far as moisture content is concerned, the midpoint in the range was 65 percent with 79 percent of all responses falling between 58 and 73 percent moisture.

Most of the corn silage was judged to be of "good" quality and was purchased within three and one-half miles from the point of use.

Table 10.

Corn Silage, Harvested Crop Prices,
New York, 1984

		R	egion	
Factors	State	Southern	Northeast	Central & Western
Records, number	38	21	11	6
Quantity, tons				
Average	247	139	316	499
Median	100	100	200	225
Range	13-1,700	24-500	14-850	13-1,700
Region, total tons	9,387	2,914	3,480	2,993
Moisture, percent				
Average	63	64	60	65
Median	65	65	65	68
Range	40-80	45-80	40-72	45-75
Most common:				
Percent	79	86	73	67
Within %	58-73	58-73	57-72	63-73
Price, \$ per ton				
Average	21	20	23	19
Median	20	17	21	22
Range	6-35	10-35	15-32	6-25
Most common:				
Percent	68	62	64	67
Within \$	14-26	14-26	20-26	20-25
Price, ¢ per lb. DM				
Average	2.9	2.8	3.1	2.8
Median	2.9	2.4	3.3	2.9
Range	1.0-5.0	1.3-5.0	1.3-4.3	1.0-4.2
Most common:				
Percent	68	71	64	67
Within $arphi$	1.7-3.7	1.7-3.7	2.5-3.7	2.7-4.2

For the State as a whole, corn silage prices averaged \$21 per ton with about two-thirds of the records indicating a price between \$14 and \$26 per ton excluding trucking. The price per ton varied most and tended to be lowest in the Southern region. The price of dry matter averaged 2.9 cents per pound Statewide and commonly ranged from 1.7 to 3.7 cents per pound.

Table 11.

Hay Crop Silage, Harvested Crop Prices,
New York, 1984

		R	legion	
Factors	State	Southern	Northeast	Central & Western
Records, number	22	12	5	5
Quantity, tons				
Average	252	360	161	85
Median	83	130	90	50
Range	6-3,000	6-3,000	36-400	10-300
Region, total tons	5,548	4,322	803	423
Moisture, percent				
Average	56	51	68	56
Median	55	55	65	60
Range	25-85	25-65	55-85	35-67
Most common:				
Percent	68	58	60	80
Within %	48-68	48-63	63-73	53-67
Price, \$ per ton				
Average	34	37	24	38
Median	30	31	25	35
Range	16-80	17-63	16-30	16-80
Most common:				
Percent	68	33	*	80
Within \$	16-35	28-32	*	16-45
Price, ¢ per lb. DM				
Average	4.1	4.1	3.9	4.2
Median	4.3	4.3	3.6	4.4
Range	1.4-7.0	1.4-7.0	2.4-5.3	2.3-6.2
Most common:				
Percent	*	*	*	*
Within ¢	*	*	*	*

^{*}Evenly distributed over the range.

A total of 22 responses were received for purchases of hay crop silage with most activity occurring in the Southern region (Table 11). Most purchases involved less than 100 tons of silage - somewhat smaller quantiles than corn silage. The midpoint of the moisture content range for hay crop silage was 55 percent moisture with about two-thirds of the records having between 48 and 68 percent moisture for the State. The three regions had similar ranges. Prices ranged between \$16 and \$35 per ton for 68 percent of the records. Prices per pound of dry matter were quite evenly distributed over a rather wide range in each region of the State.

Purchased hay crop silage tended to be hauled farther than corn silage. Nearly half of the purchases involved distances of less than five miles.

Table 12.

High Moisture Ground Ear Corn, Harvested Crop Prices,
New York, 1984

		R	legion			
Factors	State	Southern	Northeast	Central & Western		
Records, number	30	11	4	15		
Quantity, tons						
Average	118	119	148	109		
Median	71	60	48	80		
Range	7-500	10-500	15-480	7-500		
Region, total tons	3,527	1,308	591	1,628		
Moisture, percent						
Average	28	28	35	26		
Median	28	28	30	26		
Range	22-50	24-33	29-50	22-30		
Most common:						
Percent	53	64	50	60		
Within %	25-28	25-30	30	25-28		
Price, \$ per ton						
Average	72	74	75	70		
Median	71	75	81	70		
Range	46-93	62-90	46-91	46-93		
Most common:						
Percent	63	55	*	60		
Within \$	63-82	75-81	*	65-75		
Price, ¢ per 1b. DM						
Average	5.0	5.1	5.6	4.7		
Median	4.9	5.2	5.7	4.7		
Range	3.1-6.7	4.1-6.7	4.6-6.5	3.1-6.6		
Most common:						
Percent	67	82	*	60		
Within ¢	4.3-5.7	4.3-5.7	*	4.4-5.1		

^{*}Evenly distributed over the range.

Half of the 30 records summarized in Table 12 for high moisture ground ear corn involved purchases of less than 71 tons. The largest number of purchases was made in the Central and Western region of the State; the smallest number in the Northeast region. Most of the high moisture ear corn was purchased at 25 to 28 percent moisture and between \$63 and \$82 per ton. The price of dry matter varied between 3.1 and 6.7 cents per pound with 67 percent of the records falling between 4.3 and 5.7 cents per pound.

About 80 percent of the purchases were of "good" quality and about half of the purchases were hauled less than eight miles.

Table 13.

High Moisture Shelled Corn, Harvested Crop Prices,
New York, 1984

		I	Region						
Factors	State	Southern	Northeast	Central & Western					
Records, number	78	24	23	31					
Quantity, tons									
Average	134	135	98	160					
Median	100	100	100	120					
Range	5-600	5-490	13-276	8-600					
Region, total tons	10,461	3,243	2,259	4,959					
Moisture, percent									
Average	27	26	28	28					
Median	28	26	28	28					
Range	18-34	18-30	23-32	22-34					
Most common:									
Percent	69	75	65	68					
Within %	24-28	24-28	24-28	25-28					
Price, \$ per ton									
Average	87	86	93	84					
Median	82	83	86	80					
Range	63-131	68-121	65-131	63-128					
Most common:									
Percent	63	67	52	58					
Within \$	70-85	70-85	80-95	70-85					
Price, ¢ per 1b. DM									
Average	6.0	5.8	6.5	5.8					
Median	5.7	5.7	6.0	5.4					
Range	4.4-9.6	4.5-7.9	4.8-9.6	4.4-8.5					
Most common:									
Percent	62	67	52	65					
Within ¢	4.7-6.2	4.7-6.2	4.8-6.2	4.8-6.2					

Judging by the number of responses, the most common field crop sold after harvest is high moisture shelled corn. The popularity of this practice seems to be similar in each region of the State although dairy farmers in the Central and Western region bought somewhat larger quantities. Most commonly, the moisture levels of the corn was between 24 and 28 percent with 28 percent as the midpoint in the range of all purchases. Prices varied considerably with most purchases falling between \$70 and \$85 per ton in 1984. The most common dry matter prices ranged from about 4.7 to 6.2 cents per pound in all regions of the State.

Quality was rated "good" for 91 percent of the responses for high moisture shelled corn. Hauling distance was the greatest of any of the purchased field crops - half of the purchases involved distances of over 15 miles.

Table 14.

Whole Ear Corn, Harvested Crop Prices,
New York, 1984

		P	Region			
Factors	State	Southern	Northeast	Central & Western		
Records, number	31	11	6	14		
Quantity, tons						
Average	49	32	57	59		
Median	30	28	21	50		
Range	3-210	15-60	15-210	3-160		
Region, total tons	1,515	355	340	820		
Moisture, percent						
Average	15	15	13	15		
Median	15	15	14	15		
Range	8-20	12-20	8-15	12-20		
Most common:						
Percent	77	91	67	71		
Within %	12-16	12-16	12-15	12-16		
Price, \$ per ton						
Average	102	108	106	95		
Median	100	110	106	100		
Range	60-140	71-140	90-120	60-124		
Most common:						
Percent	74	73	*	71		
Within \$	90-110	100-110	*	90-100		
Price, ¢ per 1b. DM						
Average	5.9	6.3	6.0	5.6		
Median	5.9	6.5	6.1	5.8		
Range	3.7-8.1	4.2-8.1	5.3-6.5	3.7-7.3		
Most common:						
Percent	71	64	*	64		
Within ϕ	5.5-6.5	5.5-6.5	*	5.5-6.5		

^{*}Evenly distributed over the range.

Table 14 summarizes the records received for purchases of whole ear corn. Most purchases were larger in the Central and Western region than in the other two regions. However, half the purchases made in the State were less than 30 tons. Moisture content commonly was between 12 and 16 percent. The price was highest in the Southern region - lowest in the Central and Western region. It normally ranged from \$90 to \$110 per ton for the State with an average price of \$102 per ton. Dry matter prices usually were between 5.5 and 6.5 cents per pound. Quality was good and half of the purchases were made within eight and one-half miles of the point of use.

Table 15.

Dry Shelled Corn, Harvested Crop Prices,
New York, 1984

		F	Region			
Factors	State	Southern	Northeast	Central & Western		
Records, number	12	7	1	4		
Quantity, tons						
Average	350	298	N/A	154		
Median	125	100	N/A	100		
Range	12-1,500	12-1,120	N/A	50-365		
Region, total tons	4,203	2,088	1,500	615		
Moisture, percent						
Average	14	14	15	15		
Median	15	14	15	15		
Range	12-15	12-15	N/A	14-15		
Most common:			•			
Percent	83	71	N/A	75		
Within %	14-15	14-15	N/A	15		
Price, \$ per ton						
Average	121	123	123	118		
Median	122	124	123	119		
Range	99-136	115-136	N/A	99-134		
Most common:						
Percent	75	86	N/A	*		
Within \$	115-125	116-126	N/A	*		
Price, ¢ per lb. DM						
Average	7.1	7.2	7.2	6.9		
Median	7.1	7.1	7.2	6.9		
Range	5.8-8.0	6.7-8.0	N/A	5.8-7.9		
Most common:			•			
Percent	75	86	N/A	*		
Within ¢	6.5-7.5	6.7-7.5	N/A	*		

 $[\]star Evenly$ distributed over the range.

 $l_{j,j}$

Although the survey form did not ask for information about purchases of dry shelled corn or hay, several responses were received. Tables 15 and 16 summarize the information received for these commodities. Dry shelled corn prices commonly fell between \$115 and \$125 per ton tending to be somewhat higher in the Southern region. Dry matter prices were generally between 6.5 and 7.5 cents per pound.

Table 16.

Hay, Harvested Crop Prices,

New York, 1984

		R	legion			
Factors	State	Southern	Northeast	Central & Western		
Records, number	21	12	3	6		
Quantity, tons				•		
Average	120	60	143	227		
Median	30	22	100	25		
Range	4-1,000	10-300	30-300	4-1,000		
Region, total tons	2,510	720	430	1,360		
Moisture, percent						
Average	14	14	12	15		
Median	15	13	12	15		
Range	8-20	10-20	8-16	12-20		
Most common:						
Percent	71	67	*	67		
Within %	12-16	12-15	*	15		
Price, \$ per ton						
Average	78	83	68	72		
Median	75	83	70	73		
Range	45-126	45-126	59-75	56-90		
Most common:						
Percent	62	*	*	*		
Within \$	55-85	*	*	*		
Price, ¢ per lb. DM						
Average	4.6	4.9	3.9	4.3		
Median	4.5	4.8	4.0	4.3		
Range	2.6-7.4	2.6-7.4	3.2-4.5	3.3-5.3		
Most common:						
Percent	48	*	*	*		
Within ¢	3.3-4.7	*	*	*		

^{*}Evenly distributed over the range.

Most of the hay, as well as the dry shelled corn, reports received were from the Southern region. Quantities reported were small - most purchases were 30 tons or less. Reported moisture contents commonly ranged from 12 to 16 percent and most prices were evenly distributed between \$55 and \$85 per ton. About half the records indicated dry matter costs of 3.3 to 4.7 cents per pound.

SUMMARY AND CONCLUSIONS

The purchase of standing hay is quite common throughout New York State. Most parcels purchased involve 24 acres or less when all cuttings of mostly legume hay is purchased. Parcel size is even smaller for the purchase of mostly grass hay. Size range is great, however, whether one or all cuttings are purchased.

Prices paid for purchased standing hay barely cover the rental value of the land on the average and, in many cases, don't cover land costs when both taxes and interest on land values are considered.

Dairy farmers also purchase a wide variety of harvested field crops to supplement homegrown forages and purchased concentrates. These include corn silage, hay crop silage, and several forms of corn grain. Both quantity purchased and price paid per ton vary widely. Most significantly, price paid per pound of dry matter also varied greatly. Much of this price variation is likely due to perceived differences in quality as well as supply and demand.

Prices for feed crops such as corn and hay crop silage and high moisture shelled or ear corn where moisture content varies significantly should be based on dry matter content. Relating price to dry matter will provide a fairly equitable basis for valuing the nutrients being purchased. Dry matter content of the purchased feed will provide a reasonable indication of the actual quantity of feed involved.

APPENDIX I 1984 LAND RENT AND CROP PRICE SURVEY

If you rented land or purchased crops in 1984, your help will be appreciated to update our 1981 study so we have current information to help answer your questions for our county and the State.

Please complete the appropriate parts of this form and return as indicated later. Darwin Snyder, research worker at Cornell, will summarize and publish the results which will be available in early 1985 through your extension office. Your name is not required so answers will be confidential. Thanks for your help.

Cooperative Extension Agent

I. Open Cropland rented in 1984:

- Only straight, clear cut cash rentals
- Only open cropland used for annual field and vegetable crops
- Exclude hay land, pasture, fruit and buildings

				For	1984	Renta arrange	Land Quality		
Rented Parcel	Location		No. of crop acres	Cost per or Total		Crop	Check One: Written		1-Good 2-Fair 3-Poor
No.	County	Township	rented	acre	cost	harvested	Lease	Oral	4-Muck
1									
2									
3		an Chillian Andre and Marie and Marie and Andread Advantages and a grant and a second and a second and a second							
4									
5									
6									

(Continue on another sheet if necessary. Please use same headings.)

II. Pasture rented in 1984:

- Only straight, clear cut cash rentals (plus fence maintenance only)
- Exclude rent for any buildings
- Use a separate line for different rates, periods, etc.

	No. of	Quality	Total	Do you	Pasture	If ap	plicable- Per	Avg. nu	mber pa	stured
Location (county)	pasture acres rented	1-Good 2-Fair 3-Poor	cost in 1984	maint. fences? Y or N	period in months	Cost per head	1-Day 2-Month 3-Season	Steers, bred heifers	Beef cows w/calf	Other
			\$			\$ p	er			
earthin and the plant of a planting and the construction and			\$			\$ p	er			

1984 LAND RENT AND CROP PRICE SURVEY (con'd)

II.			hat I (please								sold	in 19	84:		
			ht, clear cut												
	- Us	e a separ	ate line for	diffe	ren	t transa	ictions,	rate	s, e	tc.					
			Avg 1 way	l н	av	type -	Total	1			Cu	tting	s har	vested:	
ocat	ion	Parcel	distance		Mos.tly		cost	P	rice	per:	lst			A11 ?	
coun			Legu	A STATE OF THE PARTY OF THE PAR		1984			r bale				Y or N		
						A									
			mi				\$	\$		\$					
			mi				\$	\$		\$					
IV.	Crop	prices th	at I (please	indic	ate	which)	pa	id o	or	recei	ved i	n 198	4:		
						Si	.lage		Н	igh Mois	ture	Corn	_	Dry	
						Corn	Hay Cr	ор		Ear	Sh	ell	Ea	Ear Corn	
		nce 1 way													
		oducer to			-	mi		mi		mi	mi.		4	mi	
	Count	y - Produ	ced in: ered to:					***************************************					+		
		DETTA	ELEG CO.		\$		\$		\$		\$				
	Price	per ton	(average)										\$		
		includes													
	<u>deliv</u>	ery to us	er? Y or N	<u></u>					ļ					· .	
	m - 4 1					Tons	Т.			Tons		Tons		Tons	
	Total	quantity				10118	Tons		(kernel)		10113			rnel)	
	Avera	ge moistu	re (estimate)	·		%		%		%		%			
	Avera	ge qualit	(G-Good, y F-Fair, P-	Poor)											
V.	Dairy	barn ren	t that I (ple	ase i	ndi	cate whi	.ch)	pa	id o	r r	eceiv	ed in	1984	:	
			— please indica												
	silos	, barn eq	uipment, util	ities	, e	tc?	· Carry		.0	mor.		. wiic	· bar	raringo,	
							Barn is	loca	ted	in				County.	
lease	e fold	here so	return addres	s sho	ws,	tape sh	nut, stam	ıp an	ıd ma	il soon.	Tha	nks a	gain.		
	000 min 1400 0070 0070 0070	400 400 400 500 600 400 400 AND 400	त्यन स्थान क्षात्रं नक्षात्र व्यक्त स्थान स			- cos cos cos rep tos cos cos cos t	s ago sem any eun ago sem ann eus			ري دون مين دون دون دون دون دون دون دون دون دون دو			T	- 202	
													1	r 20¢ amp	
													1	lps,	
													1		

Darwin P. Snyder 416 Warren Hall Cornell University Ithaca, NY 14853-0398