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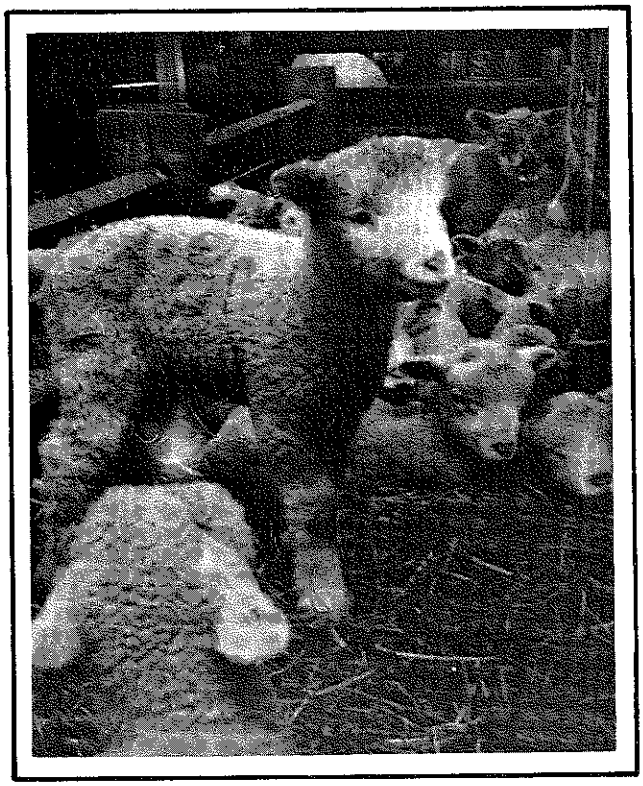
August 1968 A.E. Ext. 514

1967 SHEEP SUMMARY



SHEEP FARM BUSINESS MANAGEMENT PROJECT

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1967 Sheep Enterprise Summary

A sheep enterprise offers an opportunity for the efficient utilization of available roughage and pasture. It has low labor requirements. A minimum investment in buildings and equipment is required. The sheep enterprise is usually a supplemental enterprise on New York farms.

The 1964 Census of Agriculture reported 2,981 New York farms with sheep. More than 50 percent of these farms reported less than 25 sheep and lambs of all ages. Eleven percent of the farms had over 100 sheep and lambs, five of these farms reporting over 1,000 head.

There have been no recent data available on costs and returns for sheep enterprises on New York farms. Previous economic studies have centered around relatively small flocks. Little economic information is available on sheep enterprises from other "farm flock" states. It is difficult to arrive at accurate data on New York sheep enterprises since they are a minor enterprise on most farms. In order to obtain information on some larger commercial flocks, a small group of farmers were enlisted in a 1967 Sheep Farm Management Project.

The farms included in this project had 75 ewes or more. There were 12 complete records submitted, but one is not included in the group analysis because of unusual circumstances surrounding the enterprise during 1967. The information presented in this bulletin does not represent the average of all New York farms with a ewe flock, but is representative of a group of farmers who were interested enough in the ewe flock enterprise to keep records and provide the necessary information. Farmers involved were from the counties of Livingston, Ontario, Orleans, Steuben and Yates. Cooperative Extension Agents Peter Kanouse, Larry Davis, Sidney Cleveland, Theodore Markham and Gilbert Smith assisted. Professor Warren Brannon, extension sheep specialist with the Department of Animal Science, also cooperated in the project.

This bulletin reports what 11 farmers did in 1967. It is hoped this will also be used as a guide by other sheep producers concerned with doing a good job of managing a ewe flock enterprise. The four producers obtaining the highest labor incomes per ewe were group analyzed, as were the four receiving the lowest labor returns. Results of this analysis is reported along with the 11 farm averages. By comparing your operation with others, certain management weaknesses can be discovered and management goals formed. Records (both production and cost and returns), are a key to managing a sheep enterprise for efficiency and profit.

Note picture on the cover. Two recommended practices are shown here. First, the lambs have access to feed in a creep. This area is partitioned off so the lambs can enter but the ewes cannot. Secondly, each lamb has been paint branded within several days of birth. Lambs can be matched with their mothers after weaning so individual ewe production records may be kept for culling and selection of replacements.

INVESTMENT IN THE EWE FLOCK ENTERPRISE
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Sheep	$_____	$3,336	$2,636	$2,432
Feed and supplies	_____	1,414	1,856	1,341
Machinery and equipment	_____	1,980	3,082	1,604
Land and buildings	_____	8,330	7,938	9,096
Total	$_____	$15,060	$15,512	$14,473
Number of ewes	_____	131	125	104
Investment per ewe	$_____	$ 115	$ 124	$ 139

All investment figures above are of average inventories. The average value for each item was calculated by adding beginning to ending inventory and dividing by two.

If income producing enterprises not related to the ewe flock enterprise (and that includes purchased feeder lambs) were also present on the farm, investment in the ewe flock enterprise was separated from the total farm investment. The value of the breeding flock, feed and supplies for the flock and a portion of the equipment and real estate were included in the sheep enterprise investment.

Eight of the eleven producers are full time farmers, two are semi-retired and one has a full time job off the farm. The ewe flock was the leading source of income on two of the full time farms with the ewe flock plus lamb feeding enterprise the major source of revenue on another. Dairy was the major enterprise on one full time farm, cash crops on two and fruit on two.

The ewe flock contributed from three to 56 percent of the cash receipts on the full time farms and averaged 22 percent. The average number of ewes per farm ranged from 82 to 216. Three producers had over 200 ewes with four farms reporting less than 100 ewes.

Two producers purchased feeder lambs to finish out. Both fed over 400 lambs in 1967. There was no attempt to determine the profitability of purchasing lambs to feed out.

Throughout this bulletin, the tables will be arranged similar to the one above. The four producers obtaining the highest labor incomes per ewe were group analyzed, as were the four receiving the lowest labor returns. The number of farms involved is small. However, certain figures may give an indication of why some producers obtained a good return for their labor and others did not.

EXPENSES TO EWE FLOCK
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Hired labor	$_____	$ 189	$ 272	$ 174
Purchased feed	_____	486	182	645
Machine hire	_____	43	71	23
Machinery and small tool expense	_____	225	268	275
Auto expense (farm share)	_____	8	4	8
Gasoline and oil	_____	149	223	131
Veterinary and medicine	_____	92	70	123
Other livestock expense	_____	53	26	67
Lime and fertilizer	_____	215	274	120
Seeds and plants	_____	62	85	68
Spray, other crop expense	_____	60	55	65
Land, building, fence repair	_____	134	188	70
Taxes, insurance	_____	228	214	244
Electricity, telephone (farm share)	_____	48	43	77
Miscellaneous	_____	68	132	7
TOTAL CASH OPERATING EXP.	$_____	$2,060	$2,107	$2,097
New machinery	_____	313	444	35
New real estate	_____	548	1,375	131
Purchased livestock	_____	1,112	2,114	474
Unpaid family labor	_____	23	52	11
Decrease in inventory	_____	--	--	32
TOTAL FLOCK EXPENSES	$_____	$4,056	$6,092	$2,780

RECEIPTS AND SUMMARY
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Receipts of Ewe Flock:				
Lamb sales	$_____	$3,185	$3,367	$2,523
Sheep sales	_____	279	555	124
Wool	_____	585	550	454
Incentive payments	_____	493	522	379
Crop sales	_____	313	862	--
Miscellaneous	_____	160	407	20
TOTAL CASH RECEIPTS	$_____	$5,015	$6,263	$3,500
Increase in inventory	_____	1,236	2,973	--
TOTAL FLOCK RECEIPTS	$_____	$6,251	$9,236	$3,500
TOTAL FLOCK EXPENSES	_____	4,056	6,092	2,780
Sheep income	$_____	$2,195	$3,144	$ 720
Interest (5% of av. inventory)	_____	753	776	724
LABOR INCOME PER FLOCK	$_____	$1,442	$2,368	- $ 4

The returns from a farm enterprise can be measured in several ways. Return to labor is the measure most commonly used in studying or comparing farm businesses or individual farm enterprises. "Labor Income" is the amount left to the operator after paying all farm expenses, and deducting a charge for unpaid family labor and for interest on the capital investment.

Interest payments and payments on debts are NOT included in the sheep enterprise expenses. To make all farms comparable, a five percent interest charge on the average capital investment (average of beginning and end inventories) is deducted to arrive at labor income.

Lamb sales include market lambs, hot house lambs and feeders. The small number of animals sold for breeding purposes were included along with cull animals under sheep sales. Incentive payments on the 1967 production are used although they were not received by the producers until early in 1968.

Only one record showed a minus labor income. This was a large enough negative figure, however, to cause the average labor income of the bottom four farms to come out a small minus.

INVESTMENT PER EWE, by regions in U.S.
January 1, 1966

Item	Northern Plains	Utah-Nevada	Southwest
Livestock	$28.75	$33.50	$26.75
Crops	1.05	1.25	1.00
Machinery and equipment	6.50	3.90	5.70
Land and buildings	71.35	58.20	226.70
Total per ewe	$107.65	$ 96.85	$260.15
Number of ewes	1,151	1,893	980
Lamb crop, %	86	86	82

SOURCE: Agriculture Information Bulletin No. 230, USDA, 1967

In the following three tables, the average number of ewes per farm was used in calculating the factors. The average number was calculated by adding the beginning inventory number of ewes to the ending inventory number and dividing by two.

Investment per ewe ranged from $55 to $238 on the 11 New York farms. Only one producer had over $200 invested per ewe. Six farms had an investment per ewe of less than $100.

Livestock investment for the regions shown in the table above is larger than for the New York farms partially because of the inclusion of other livestock, such as horses, cattle and goats.

INVESTMENT PER EWE
11 New York Farms, 1967

Item	My Farm	Average All Farms	Top Four Farms	Bottom Four Farms
Sheep	$_____	$25.45	$21.10	$23.40
Feed and supplies	_____	10.80	14.85	12.90
Machinery and equipment	_____	15.10	24.65	15.40
Land and buildings	_____	63.60	63.50	87.45
Total	$_____	$114.95	$124.10	$139.15
Number of ewes	_____	131	125	104

EXPENSES PER EWE
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Hired labor	$_____	$ 1.45	$ 2.20	$ 1.70
Purchased feed	_____	3.70	1.45	6.20
Machine hire	_____	.35	.55	.20
Machinery and small tool expense	_____	1.70	2.15	2.65
Auto expense (farm share)	_____	.05	.05	.05
Gasoline and oil	_____	1.15	1.75	1.25
Veterinary and medicine	_____	.70	.55	1.20
Other livestock expense	_____	.40	.20	.65
Lime and fertilizer	_____	1.65	2.20	1.15
Seeds and plants	_____	.50	.70	.65
Spray, other crop expense	_____	.45	.45	.65
Land, building, fence repair	_____	1.00	1.50	.65
Taxes, insurance	_____	1.75	1.70	2.35
Electricity, telephone (farm share)	_____	.35	.35	.75
Miscellaneous	_____	.50	1.05	.05
TOTAL CASH OPERATING EXPENSES PER EWE	$_____	$15.70	$16.85	$20.15
New machinery	_____	2.40	3.55	.35
New real estate	_____	4.20	11.00	1.25
Purchased livestock	_____	8.50	16.90	4.60
Unpaid family labor	_____	.15	.40	.10
Decrease in inventory	_____	--	--	.30
TOTAL EXPENSES PER EWE	$_____	$30.95	$48.70	$26.75

RECEIPTS AND SUMMARY PER EWE
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Receipts Per Ewe:				
Lamb sales	$_____	$24.30	$26.95	$24.25
Sheep sales	_____	2.15	4.45	1.20
Wool	_____	4.45	4.40	4.35
Incentive payments	_____	3.75	4.15	3.65
Crop sales	_____	2.40	6.90	--
Miscellaneous	_____	1.20	3.25	.20
CASH RECEIPTS PER EWE	$_____	$38.25	$50.10	$33.65
Increase in inventory	_____	9.45	23.75	--
RECEIPTS PER EWE	$_____	$47.70	$73.85	$33.65
EXPENSES PER EWE	_____	30.95	48.70	26.75
Sheep income	$_____	$16.75	$25.15	$ 6.90
Interest (5% of av. inventory)	_____	5.75	6.20	6.95
LABOR INCOME PER EWE	$_____	$11.00	$18.95	-$ .05

Estimates and allocations of certain expenses and receipts were necessary on several records. Consequently, expenses and receipts per ewe have been rounded to the nearest nickel in order to avoid an impression of precisness.

Most notable of the various cash cost differences between the top and bottom farms is purchased feed. Cash outlay per ewe for feed by the four bottom farms was four times that of the top farms. The top farms, however, had larger expenditures for gas, lime and fertilizer. The bottom four producers experienced more health problems. Their veterinary and medicine expense was twice that of the top producers. The larger investment in land and buildings per ewe by the bottom four producers is reflected by the greater cash outlay for taxes and insurance. Miscellaneous expense includes cash rent, which made up 85% of the total outlay in that category.

One of the top producers sold the bulk of his ewe flock after weaning and purchased western yearlings in the fall as replacements. This change-over accounts for more than half of the total livestock purchases and sheep sales for the 11 farms. Eight other farmers did purchase livestock, six of them buying western

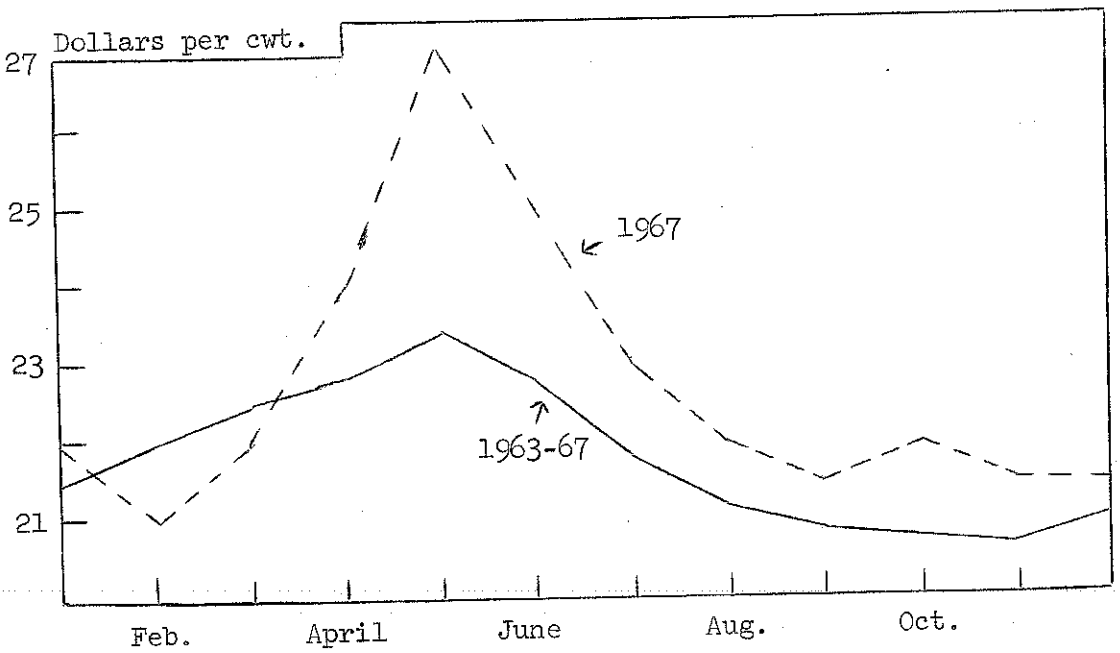
ewes (yearlings or lambs) for replacements. Two transactions, one a purchase of additional land and one a major fencing program, accounts for all the new real estate expense.

The relative importance of various cash receipt items varies considerably between the top four farms and the bottom four. Lamb sales made up 72 percent of cash receipts for the bottom four farms, 54 percent for the top four. None of the bottom four registered crop sales and only two indicated any miscellaneous receipts. More than half of the producers involved had not filed for state gas tax refund, a miscellaneous receipt.

An increase or decrease in inventory for the year was determined by subtracting the beginning inventory from the ending inventory. Eight producers averaged an increase in inventory of $1,861. Three records having a decrease in inventory averaged a $315 decline. The $9.45 per ewe increase in inventory for all farms was almost 20 percent of total receipts. Upgrading of the ewe flocks and increases in sheep numbers accounted for 38 percent of the increase in inventory. Added investment in land and buildings accounted for another 45 percent of the increase.

Ten of the eleven producers obtained a positive return to labor. These ten producers averaged $12.85 labor income per ewe.

MONTHLY LAMB PRICE - New York



SOURCE: Agricultural Prices, USDA

Market conditions have a considerable effect on labor income. Farmers claim they have no control over the prices they receive -- but they do. Price is affected by whom you sell to, on what basis you sell the animals (live weight, grade and yield, etc.), what quality you produce and when you sell. Note the graph. In 1967, the average monthly price for market lambs varied six dollars. Over the past ten years, the highest monthly average has always been within the first seven months. The lowest monthly price was registered during the August to December period seven of the ten years.

Lambs were sold every month of the year by the producers in this study. Those who sold lambs in April through July averaged $26 to $28 per hundredweight. Lambs sold by these farmers during September through December brought in the range of $19.50 to $23.50.

Larger world wool production and weak demand in 1967 resulted in sharply lower prices compared to 1966. The average U.S. farm price for shorn wool in 1967 was 39.8 cents per pound. This was 12.3 cents below the preceeding annual average. However, the incentive payment to producers under the Wool Act was increased to 65.8 percent of returns from the sale of wool in 1967, compared with 24.8 percent in 1966.

LAMB CROP AND MORTALITY
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
No. of ewes, Jan. 1	_____	134	127	101
No. of ewes lambed	_____	120	114	94
Total lambs dropped	_____	178	178	138
Mortality:				
Lambs born dead	_____	8	6	8
No. lambs died	_____	20	14	12
No. ewes died	_____	10	10	10
Lamb crop, %	_____	112	124	117
% of ewes lambed	_____	90	90	93

Ten percent of the ewes did not give birth to a lamb in 1967. The percentage of ewes that did lamb per farm ranged from a low of 78 to one producer with 100 percent. Eighty-four percent of the ewes that lambed did so during the four month

period of February through May. One producer had 28 ewes lamb in October. These and three ewes on another farm were the only ones to lamb in the second half of the year.

Birth rates (total number of lambs dropped per 100 ewes that lambed) varied slightly according to months. In January, February and May the birth rate was 147 to 148 percent. For March, it was 144 percent and in June a 141 percent. The 28 ewes that lambed in October dropped 31 lambs for a 111 percent birth rate. April was the busiest lambing month and had the highest birth rate with 154 percent. Hard, fast conclusions cannot be made on the basis of these figures, however, because of the relatively small number of ewes included in this study.

The lamb crop percentage (number of lambs saved per 100 ewes 1 year old or older on hand January 1) for the 11 farms was 112. This is not particularly good. The 1967 lambing percentage for the 35 Native States was estimated at 106. New York State's estimated average was 111. These percentages are considerably below the actual potential.

Even though the bottom four farms had a larger percentage of ewes lambing, they ended up with a smaller lamb crop percentage than did the top four. Range in the lamb crop produced was from 86 to 133 percent. Only three producers obtained a lamb crop in excess of 125 percent. Two of the three are in the top four farms according to labor income per ewe.

Over 13 percent of the lambs born alive did not reach market weight. There were a number of causes. Boys out having a "good time" - chasing and shooting at lambs - are credited with the loss of 20 lambs on one farm. Snow and unseasonably cold weather in May took its toll on several farms. Enterotoxemia, or over-eating disease, was the diagnosis in about 10 percent of the deaths. If complete knowledge of each ewe and lamb death was known, worms would no doubt be number one on the list of causes.

All 11 farms wormed the ewe flock at least once. Several did not worm the lambs, however. One worming per year is hardly adequate even if phenothiazine salt is available year round. Only three producers wormed three times during the year.

Phenothiazine and a relatively new wormer, thiabendazole, were the major medicants. In early tests, thiabendazole had appeared very effective and a number of New York sheepmen have relied heavily on it. However, after several producers who were following a good worming program suffered severe losses from worms, it was discovered that thiabendazole was ineffective against one strain of large stomach worms found in New York. This is another example of why more than one kind of treatment is usually required in a control program.

Chester Bennett from Lowry, Minnesota, was named winner of the 1967 Ford Motor Company Farm Efficiency award in the sheep division. Bennett's management program earns him a terrific 160% lamb crop from nearly 300 ewes.

Bennett's ewes lamb the first week in February. He weans them by mid-May and keeps the lambs in the barn for fattening. By mid-June half of his lambs are ready for market -- weighing 100 pounds at four months of age. The remainder are sold within the next month. Bennett credits his fast lamb gains to early weaning, creep feeding, disease prevention and a careful worming program.

SALES AND PURCHASES
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Lamb sales, number:				
Market lambs	_____	120	136	98
Hot house lambs	_____	20	18	20
Feeders	_____	3	3	--
Sheep sales, number	_____	27	54	9
Wool, pounds sold	_____	1,387	1,301	1,074
Replacement purchases, no.	_____	36	64	16
Av. wt. of market lambs, lbs.	_____	95	95	94
Wool sold/ewe, lbs.	_____	10.6	10.4	10.3

Market lambs accounted for 84 percent of all the lamb sales. Feeder lambs were incidental - light lambs cut out of a group of market lambs, etc. There has been a strong demand for hot house lambs. This market could be greatly expanded if conflicts between state and federal inspection regulations were ever resolved. In 1967, four of the 11 producers sold a total of 220 hot house lambs for $18.00 to $23.00 per head.

Seven of the sheepmen purchased replacement ewes. Several of them have followed a program of purchasing western yearling ewes for all replacement. The ewes are bred to mutton type rams (Suffolks have become the most popular breed within this group of cooperators) and all lambs are sold.

The weather in 1967 was not ideal for the sheepmen involved in this study. Unexpected snow and cold in May caused lamb losses. An over-abundance of rain in late summer and fall produced lush and "washy" pastures. Lambs are the only type of livestock that will finish on natural grasses without grain and still meet U.S. "choice" grade requirements. Several of the producers sold lambs off pasture in the fall. The average weight of the lambs coming off pasture was below previous years because of the lush pastures.

The 10.6 pounds of wool sold per ewe is not exactly what the ewe produced herself. This number was arrived at by dividing the total pounds of wool sold, which includes wool from rams and any lambs shorn, divided by the average number of ewes.

DIRECT LABOR TO THE EWE FLOCK
11 New York Farms, 1967

Month	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
		hours		
January	_____	37	28	46
February	_____	38	30	53
March	_____	46	40	66
April	_____	75	96	66
May	_____	41	31	32
June	_____	10	9	12
July	_____	12	19	8
August	_____	9	16	7
September	_____	6	9	8
October	_____	6	6	6
November	_____	18	15	20
December	_____	29	18	30
Total hours	_____	327	317	354
Hours per ewe	_____	2.5	2.5	3.5

Direct labor to the ewe flock includes time spent in feeding, lambing, fencing, worming, etc. It does not include time spent producing the hay and grains fed to sheep. For most of the producers involved, at least part, and, in some cases, the bulk of the direct labor was "free" or "spare" time. Lambing was scheduled to finish before spring field work began. Daily chores are few while the sheep are on pasture.

Differences in direct labor distribution over the year centered around time of lambing. The bottom four producers concentrated their lambing in February and March. Seventy percent of the ewes on the top four farms, however, lambed in April. In total, the top four farmers averaged one hour less per ewe of direct labor compared to the bottom four producers.

~~The ewe flock does not require great amounts of time.~~ Considerably more critical to success with the ewe flock is timeliness in carrying out recommended sheep husbandry practices.

FEED AND PASTURE UTILIZED
11 New York Farms, 1967

Item	My farm	Average All Farms	Top Four Farms	Bottom Four Farms
Corn, bu.	_____	164	136	283
Oats, other grains, bu.	_____	253	286	349
Hay, tons	_____	52	48	48
Pasture, acres:				
Permanent	_____	32	64	--
Improved	_____	22	11	24
Aftermath	_____	13	16	3

There was no "typical" concentrate feeding and pasture program within the group of eleven farms. One producer fed no grain to his ewes or lambs. Several fed grain sparingly to the ewes before lambing and for a short period after. Others gave the ewes more grain than was necessary. Lambs were fed grain for varied periods of time.

Pasture land which was for practical purposes nontillable, had received little or no lime and fertilizer and had not been reseeded was placed in the "permanent" class. Land from which some crop, such as wheat or first cutting of hay, had first been taken and then used for pasture was considered aftermath grazing. Improved pasture included hayland used entirely for pasture and other land upon which the producers had followed pasture-improving agronomic practices.

The pasture season per farm varied from four months on one farm to eight months on three others. The top four farms relied mainly on permanent pasture and aftermath while the bottom four were utilizing no permanent type pasture lands and fed more grain and hay per ewe. On the average, these 11 producers needed two ton of hay for every five ewes.

The total management program followed - not the amount of time spent or feed fed - will determine the profitability of raising sheep. Follow a schedule of recommended practices. Keep records of production and costs and returns. Compare your record for this year with those of previous years and with records of other producers. Contact knowledgeable people, such as the extension sheep specialist or your county agent for assistance in overcoming weaknesses in your program.

Interested persons may obtain more information concerning sheep in New York from A. E. Ext. 473 titled "The Sheep Industry in New York State" by Marzolf and Brannon and from Cornell Extension Bulletin 828, "Sheep Production", by Willman, Brannon and Hogue.