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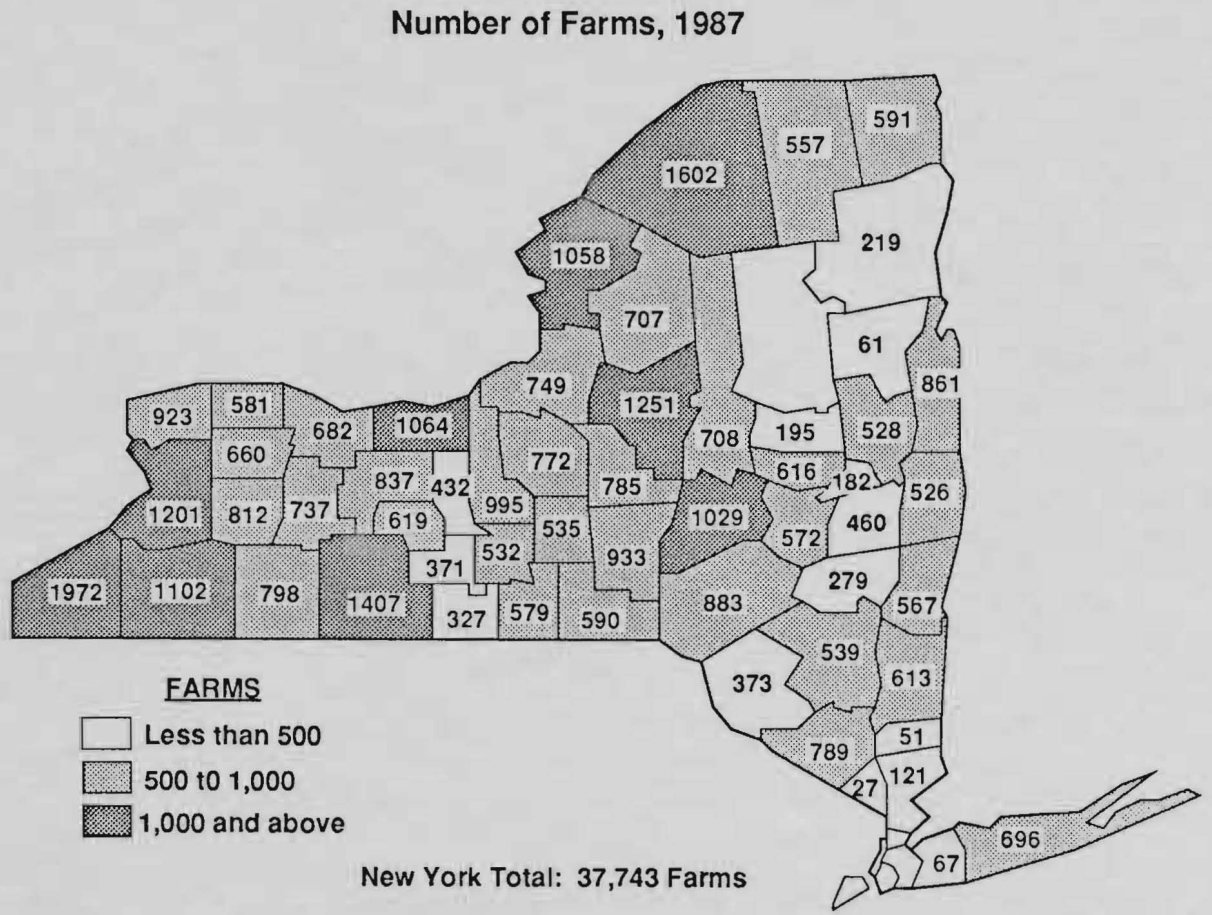
CENSUS OF AGRICULTURAL HIGHLIGHTS
New York State, 1987



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CENSUS OF AGRICULTURE HIGHLIGHTS
New York State, 1987

Background

The Census of Agriculture provides a continuing historical record of what has happened on the State's farms and its rural economy. The first agricultural census was taken throughout the United States in 1840, as part of the Census of Population. There is a detailed census record of agricultural activity by counties for New York State at the start of each decade from 1840 to 1950. In 1925 and again in 1935 and 1945, a census of agriculture was taken in mid decade as well. Beginning in 1954 and continuing to 1974, the Census of Agriculture was taken every five years. In 1976, Congress decided that the Census of Agriculture should be taken in the same years as the other economic censuses such as manufacturing, mining and commercial trade. In 1982, the agricultural census was taken at the same time as the other economic censuses and from 1987 onward will revert to a five year cycle.

Purpose

The purpose of this summary report is to provide information on key agricultural distributions such as land in farms, numbers of farms, acreage of major crops and numbers of livestock. Tables containing this information from the census and charts showing the nature of the distributions are presented first. A set of state maps with county information showing numbers of farms and comparative information on crop and livestock distributions are presented last.

The intent of this report is to supplement and summarize some of the detail in the published volume for New York State issued by the Bureau of the Census (AC87-A-32 New York, Volume 1, Part 32, State and County Data). The detailed information including definitions, explanations, and the original questionnaire are all included in this reference volume.

Comparability with 1982 Census Totals

Both the 1987 and 1982 censuses were conducted at the start of the year by mail survey. In 1988, this was followed by five letters for non-respondents, three of which included a report form. Telephone interviews were carried out with as many non-respondents as could be located. A non-response adjustment procedure was used to represent the final non-respondent farms in the census results.

Most of the problems of non-response were associated with farms selling less than $10,000 of products. Follow-up procedures were similar in both 1982 and 1987. The procedures suggest that

the undercount of small farms, if any, would be of a somewhat similar magnitude. A description of the statistical methodology can be obtained by referring to Appendix C, Statistical Methodology, in AC87-A-32. There is no apparent reason to assume that there is any methodological upward or downward bias in the number of farms reporting in these two census years.

One unusual feature of the statistics for 1982 and 1987 is that farm prices received in 1987 were lower than those in 1982. The index of prices received by farmers in 1982 was 133 compared with 126 for 1987 using 1977=100. Thus, in making comparisons on the value of sales over this five-year period, one should recognize that prices had generally fallen by five percent over this period. This was true for milk in New York State as well as for the more general index of farm prices.

Definition of a Farm

The Census defines a farm in both 1982 and 1987 as "any place from which $1,000 or more of agricultural products were sold or normally would have been sold during the census year." The previous definition used from 1959 to 1974 counted a farm as any place with less than 10 acres from which $250 or more of agricultural products were sold or any place of 10 acres or more where $50 or more of agricultural products were sold during the census year.

Since 1850, the census definition of a farm has changed nine times. In all cases, the effort has been made to include all the units where any commercial production occurred or where the operator obtained an important part of his livelihood from agriculture, even if no sales took place. Because of the changes in definitions and the large number of relatively small and part-time farms, one should be cautious in making comparative statements about changes in farm numbers particularly in the past 20 years.

STATEWIDE DATA

Farm Numbers, Land in Farms and Farm Organization

The land area of the State of New York is about 30.6 million acres. In 1987, 27.5 percent or 8.4 million acres were in farms. This is a decrease of nearly 800,000 acres from 1982 and more than a million acres since 1978. One hundred years earlier, the census of 1880 reported 22.9 million acres in farms, the peak period in history. Much of the land formerly in farms has reverted to forest or brush. Much of this is privately owned and used for recreation or forestry. Some tracts were purchased by the State in the 1920s and 1930s in a period of great depression in agriculture.

Land in farms is distributed by the Census into four categories of cropland, woodland, other pastureland and rangeland, and land in house lots, ponds, roads and wasteland. Total cropland harvested increased gradually between 1969 and 1982 but dropped back in 1987 to about the level existing in 1969. Total cropland in 1987 was 5.38 million acres of which 72.5 percent was harvested.

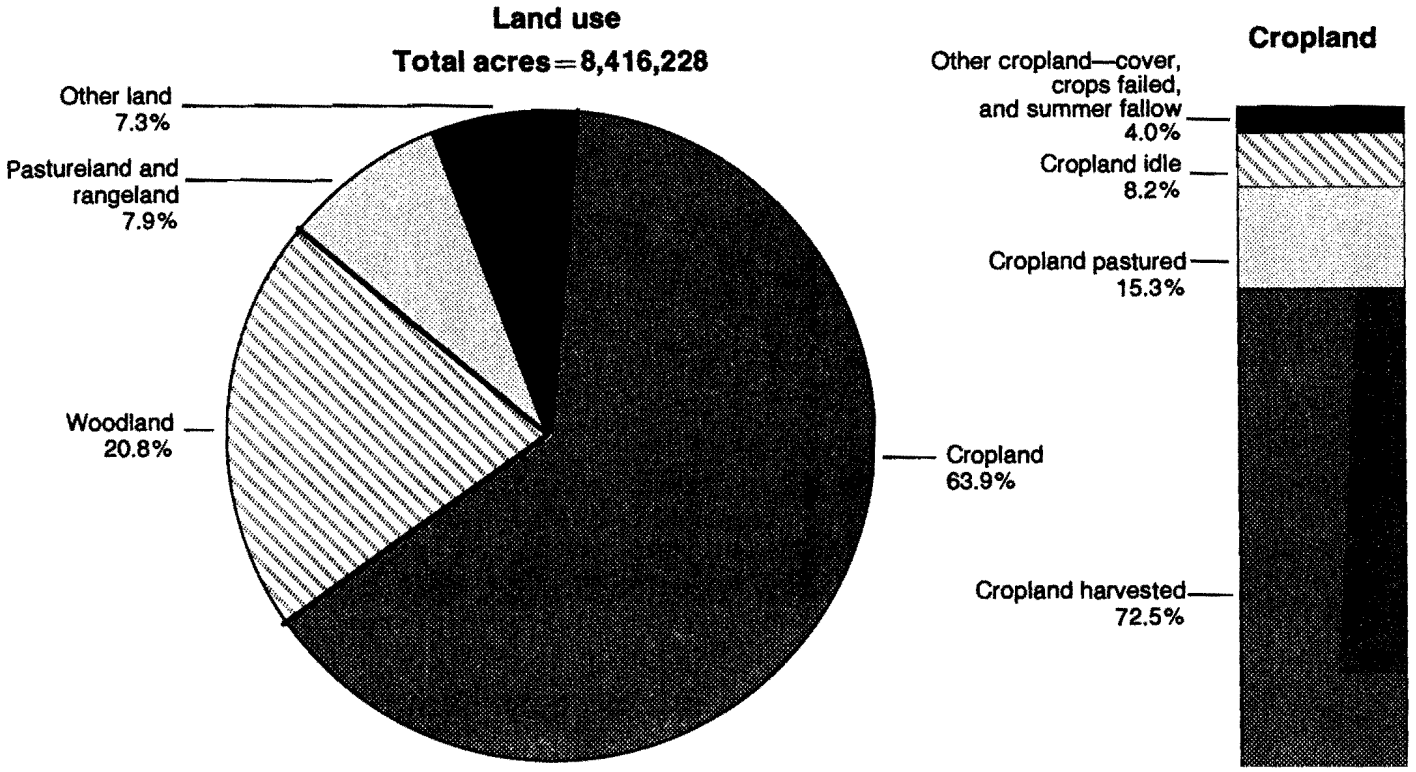
Year	Total cropland	Total cropland harvested
	(acres)	(acres)
1969	6,081,847	3,835,623
1974	5,788,149	4,156,266
1978	5,940,788	4,348,591
1982	5,697,926	4,430,198
1987	5,382,175	3,899,819

Of the total land in farms in 1987, nearly 64 percent is in cropland, an increase from 62 percent in 1982 (Table 1). As farms have gone out of production, the better cropland has been maintained in agricultural production and woodland and nontillable pasture makes up a smaller proportion of the total remaining in farms.

Table 1. LAND IN FARMS BY MAJOR CATEGORIES
New York, 1987

Description	1987	Percent of total
	acres	
Total cropland	5,382,175	63.9
Harvested	3,899,819	46.3
Cropland pasture	822,401	9.8
Idle cropland and government programs	582,976	7.0
All other cropland	76,979	0.9
Total woodland	1,750,589	20.8
Woodland pastured	374,034	4.4
Woodland not pastured	1,376,555	16.4
Other pastureland and rangeland	665,594	7.9
Land in house lots, ponds, roads and wasteland	617,870	7.3
Total land in farms	8,416,228	100.0

CHART 1. LAND IN FARMS BY MAJOR USES
New York, 1987



The distribution of farm numbers in 1982 and 1987 by size of farm shows decreases in nearly all of the size categories except the two with 1,000 acres or more per farm. The bulk of the state's farmland is in units of 260 acres or more (Table 2). Nearly 70 percent of the farmland is operated by the 11,171 largest units. There are 14,488 farms with less than 100 acres. Most of these are residential or part-time farms although some are intensively managed full-time, commercial operations.

Table 2. NUMBER OF FARMS AND TOTAL LAND IN FARMS BY SIZE CLASS
New York, 1982 and 1987

Acres per farm	Number of farms 1982	Number of farms 1987	Total area, 1987
acres			acres
1 - 9	2,763	2,517	9,623
10 - 49	6,575	6,114	167,442
50 - 69	2,894	2,603	151,402
70 - 99	3,674	3,254	271,255
100 - 139	4,538	4,008	466,470
140 - 179	3,570	3,126	492,989
180 - 219	3,144	2,709	536,653
220 - 259	2,760	2,246	535,516
260 - 499	8,299	7,289	2,579,749
500 - 999	3,274	3,112	2,043,038
1,000 - 1,999	620	654	848,124
2,000 and over	103	116	350,899
Total	42,207	37,743	8,416,228

Full owners continue to be the dominant tenure class of farms (Table 3). Part owners account for one-third of the total number; these are primarily active commercial farms on which some land is rented from others to provide additional cropland or pasture. There was no important change in the distributions between 1982 and 1987.

Table 3. FARMS BY TENURE STATUS AND FORM OF ORGANIZATION
New York, 1982 and 1987

Description	Number of farms 1982	Number of farms 1987	Land in farms, 1987
			acres
Tenure status:			
Full owners	25,608	23,039	3,406,754
Part owners	14,214	12,532	4,598,934
Tenants	2,385	2,172	410,540
Total	42,207	37,743	8,416,228
Form of organization:			
Individual or family	36,543	32,149	6,258,203
Partnership	4,086	3,835	1,434,134
Corporations			
Family-held, less than 10 stockholders	1,214	1,396	577,138
Family-held, more than 10 stockholders	24	16	15,269
Other than family-held	147	133	50,242
Other--cooperative, estates, trusts, and institutional	193	214	81,242
Total	42,207	37,743	8,416,228

The predominant form of organization is individual or family operation. Partnerships account for a little over 10 percent of the businesses. The number of incorporated businesses has increased modestly from 1982 but is still a small component of the total. The number of non-family type corporations with farms is small and relatively unimportant in this state. The land they operate accounts for only 0.6 percent of the total farmed.

Table 4. FARM OPERATORS BY AGE GROUP AND DAYS OF WORK OFF-FARM New York, 1982 and 1987

Description	1982	1987
	number	
Operators by age group:		
Under 25 years	845	370
25 - 34	5,380	4,100
35 - 44	9,368	8,413
45 - 54	10,013	8,862
55 - 64	9,965	8,860
65 and over	6,636	7,138
Average age	50.0	51.4
Days of work off-farm:		
0	19,456	18,079
1 - 49	2,375	1,974
50 - 99	963	969
100 - 149	1,228	1,138
150 - 199	2,230	2,009
200 and over	13,094	11,506
Not reporting	2,861	2,068

The average age of farm operators increased from 50 to 51.4 years between 1982 and 1987 (Table 4). In particular, the number of operators over 65 increased while numbers in all other categories decreased. The pattern of number of days of work off the farm did not change in any important way between census years. Almost 20,000 reported either no days worked off the farm or less than 50. At the other end of the spectrum, there are 11,506 with full-time jobs off the farm and another 2,009 with 150-199 days of such work. Relatively few were in the middle categories reflecting the nature of the job market and the demands of most farm enterprises.

Farm Size by Value of Products Sold

Value of agricultural products sold is one of the most common ways of measuring farm size (Table 5). Of the 37,743 farms enumerated, 35 percent had sales of $5,000 or less in 1987. In total, they accounted for less than one percent of all agricultural sales. Most of this group can be described as living on residential farms with agricultural enterprises as a very small component of family activity.

Table 5. NUMBER OF FARMS BY VALUE OF PRODUCTS SOLD
New York, 1982 and 1987

Value of agricultural products sold	Number of farms 1982	Number of farms 1987	Total value of sales, 1987
			millions
Less than $2,500	10,479	9,168	$ 8.1
$2,500 - 4,999	4,421	4,061	14.6
5,000 - 9,999	4,339	3,892	27.5
10,000 - 19,999	3,563	3,429	48.3
20,000 - 39,999	3,696	3,064	88.0
40,000 - 49,999	1,582	1,270	56.8
50,000 - 99,999	6,731	5,560	408.2
100,000 - 249,999	5,791	5,554	841.8
250,000 - 499,999	1,175	1,262	422.5
500,000 - 999,999	398*	333	222.0
$1,000,000 and over	--	150	304.1
Total	42,207	37,743	$2,441.9

*$500,000 and over in 1982.

The second group of farms with agricultural sales from $5,000 to $50,000 are primarily part-time farm operations. The agricultural operations are important to the family but the primary source of family income in most cases comes from outside agriculture. In 1987, there were 7,321 farms with sales between $5,000 and $20,000 or 19.3 percent of the total. The larger part-time businesses, sales of $20,000-49,999, included 4,334 farms or 11.5 percent of the total. This group of part-time farms sold about $220 million of products or nine percent of the total.

The farms with sales of $50,000 or more include 12,859 businesses or 34 percent of the total. Most of these get their primary source of family income from farming. The largest decline in numbers between 1982 and 1987 was from the group with sales from $50,000-99,999. Those with sales of $100,000-249,999 decreased by four percent in five years. The three larger sales classes all increased reflecting national trends. Ninety percent of all agricultural sales were produced by this group of commercial farms.

Total Sales by Type of Product and Type of Farm

The relative importance of individual crops and livestock products in terms of sales is presented in Table 6. Livestock products continue as the most important with the dairy industry dominant among that group. In the five-year period, relatively little change occurred in the aggregates. Poultry sales declined by 23 percent, an important change for that sector. Sheep, a minor group in total, increased in importance over the five years.

Table 6. TOTAL SALES BY TYPE OF PRODUCT
New York, 1982 and 1987

Description	Value of sales 1982	Value of sales 1987	Percent of total, 1987
	millions		
Livestock:			
Dairy products	$1,387.4	$1,343.7	55.0
Cattle and calves	196.3	210.4	8.6
Poultry and poultry products	116.7	90.3	3.7
Sheep, lambs and wool	2.7	3.7	0.2
Hogs and pigs	17.1	15.6	0.6
Other livestock	49.0	76.8	3.1
Total livestock	$1,769.2	$1,740.5	71.3
Crops:			
Fruit, nuts and berries	$ 147.0	$ 144.2	5.9
Vegetables and melons	142.6	158.5	6.5
Nursery and greenhouse products	108.8	168.2	6.9
Corn for grain	114.7	86.1	4.8
Hay, silage, seeds	52.4	63.1	2.6
Wheat	16.1	9.6	0.4
Oats	11.0	6.2	0.3
Other grains	16.0	15.4	0.6
Miscellaneous crops	49.1	50.1	2.1
Total crops	$657.7	$701.4	28.7
Total agricultural sales	$2,426.9	$2,441.9	100.0

Crop sales increased as a share of the total with the major change associated with nursery and greenhouse products. Sales were up 54.5 percent in five years reflecting important growth in this industry. Vegetables and melons were up by 11 percent; corn for grain was the commodity with a substantial drop in value, partly reflecting an important reduction in price as well as volume.

All farms are classified by type according to a Standard Industrial Classification (SIC) used for all census tabulations (Table 7). The most important group in terms of sales as well as numbers is dairy, 61 percent of all sales. The next three groups, horticultural specialties, vegetables and melons and fruit and tree nuts are much smaller in both numbers of farms and value of sales. Average sales per farm for dairy, horticultural specialties and vegetables and melons are $100,000 or more. Fruit and tree nuts at $54,000 includes a number of part-time operations.

Table 7. FARMS BY TYPE: STANDARD INDUSTRIAL CLASSIFICATION
New York, 1987

Type of farm	Number of farms	Market value of total sales
		thousands
Dairy	12,101	$1,487
Horticultural specialties	1,480	166
Vegetables and melons	1,601	160
Fruit and tree nuts	2,575	140
Livestock: beef, sheep, hogs	7,946	105
Field crops except cash grains	5,321	95
Poultry and eggs	417	93
Animal specialties	2,206	77
Cash grains	2,089	74
General: crops	1,620	28
General: livestock	387	16
	37,743	$2,442

There are large numbers of part-time and residential farms especially in the groups designated as "Livestock: beef, sheep, hogs" and "Field crops except cash grains." The only other SIC group where the bulk of the farms are relatively large commercial enterprises is poultry and eggs; average sales per farm is $223,000.

Government Payments and Other Farm-Related Income

Direct government payments to farmers have increased during the 1980s as deficiency payments have been received as part of participation in wheat and feed grains programs. The dairy buyout program also covered part of the period of the 1987 census. New York farmers received a total of $66.9 million dollars from these sources (Table 8).

Table 8. GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME New York, 1987

Distribution of such income	Number of farms	Total value of such income
		millions
Government payments:		
$0 - 999	1,343	$ 0.6
1,000 - 4,999	2,713	7.2
5,000 - 9,999	1,279	9.0
10,000 - 24,999	1,069	16.5
25,000 - 49,999	419	14.4
$50,000 and over	221	19.2
Total	7,044	$66.9
Other farm-related income:*		
$0 - 999	4,086	$ 1.5
1,000 - 4,999	3,344	7.8
5,000 - 9,999	938	6.3
10,000 - 24,999	520	7.5
25,000 - 49,999	101	3.3
$50,000 and over	13	1.1
Total	9,002	$27.5

* Includes custom work, rentals of real estate, sales of forest products, etc.

More than 7,000 farmers received some direct payments in New York. Over half, however, received payments of $5,000 or less. There were only 640 farms who received $25,000 or more during the year; most of these were individuals with relatively large acreages of corn for grain or wheat. This group received a little more than half of the total.

Other farm-related income is reported but not included as part of agricultural sales. This is a relatively small component of total agricultural income in this state. Most of those receiving such returns do not rely on it for much of their total family income. More than 80 percent of those reporting obtained less than $5,000 from such sources. Custom work, renting out some land or buildings, sales of forest products, and recreation income are the primary items.

Net Cash Return from Agricultural Sales

For the first time, the Census provided a distribution of "net cash returns" based on subtracting cash farm expenses from cash agricultural sales. Depreciation and changes in inventory values are not included in making this calculation. It is a measure of cash flow provided from these records. Because such a large number of farms have sales of less than $20,000, 54 percent of the total, one should expect that a large number of the net cash returns would be small, falling between losses of $5,000 and gains of $5,000 (Table 9). In fact, there is a much wider distribution of gains and losses than might have been expected.

Table 9. NET CASH RETURN FROM AGRICULTURAL SALES
New York, 1987

Size of net cash return or loss	Number of farms	Percent of all farms
Gains of:		
$50,000 and over	3,360	8.9
25,000 - 49,999	4,281	11.3
10,000 - 24,999	4,802	12.7
5,000 - 9,999	2,342	6.2
1,000 - 4,999	3,922	10.4
0 - 999	1,917	5.1
Subtotal	20,624	54.6
Losses of:		
$ 0 to $- 999	2,607	6.9
-1,000 to - 4,999	8,733	23.1
-5,000 to - 9,999	3,139	8.3
-10,000 to -24,999	1,987	5.3
-25,000 to -49,999	472	1.3
$-50,000 and over	178	0.5
Total	37,740	100.0
Average net return per farm	$13,690	
Average net return, farms with gains	30,364	
Average net return, farms with losses	-6,401	

There were 20,624 farms reporting gains, 54.6 percent of the total. The number reporting cash losses was substantial; seven percent of the total had losses of $10,000 or more. The spread in these statistics is perhaps the most noteworthy item of interest. There is no way to associate the large gains or losses with a particular type or size of farm operation.

Field Crops

Cropland harvested in New York decreased by a little less than 12 percent between 1982 and 1987 to about 3.9 million acres. Part of this reduction can be attributed to the federal Acreage Reduction Program requirement associated with producing wheat and feed grains. The primary uses of cropland were as follows:

	Percent	
	1982	1987
Hay and grass silage	52	57
Corn for grain	16	15
Corn for silage	13	13
Oats	6	4
Wheat	3	2
Vegetables and potatoes	5	5
Fruit and berries	3	3
All other	2	1
Total	100	100

Between 1982 and 1987, hay and grass silage became relatively more important even though the total acreage committed to these crops actually declined by 125,000 acres. Corn continues as the most important cereal grain. Both oats and wheat were relatively less important as percentages of the total.

Hay and Grass Silage

The most commonly grown field crop is hay or hay harvested as grass silage. More than 70 percent of all farms reported some acreage harvested. Of those with some hay harvested, 44 percent had 50 acres or less. Those with 50 acres or more included a large share of the commercial farms and accounted for 88 percent of the total acreage in these crops.

Table 10. ALL HAY AND GRASS SILAGE: FARMS AND HARVESTED ACRES New York, 1982 and 1987

Acres harvested	Number of farms in 1987	Total acres	
		1982	1987
1 - 14	3,552	34,709	29,757
15 - 24	3,009	65,070	56,676
25 - 49	5,316	210,428	185,167
50 - 99	6,587	550,585	450,797
100 - 249	6,938	1,101,274	1,010,415
250 - 499	1,305	346,038	411,843
500 - 999	154	66,897	92,723
1,000 and over	16	9,404	21,741
Total	26,877	2,384,405	2,259,119

Corn for Grain

The acreage committed to corn for grain grew steadily between 1950 and 1982. In 1987, the upward trend in corn for grain was reversed and a little less than 600,000 acres were harvested.

Census Year	Total Acres
1950	163,045
1959	218,647
1969	243,475
1978	593,674
1982	749,492
1987	598,815

Most of the increase in production occurred in the 1970s. The reduction in 1987 from 1982 is partly attributable to the Acreage Reduction Program but probably not all of it.

Table 11. CORN FOR GRAIN OR SEED: FARMS AND HARVESTED ACRES New York, 1982 and 1987

Acres harvested	Number of farms in 1987	Total acres 1982	Total acres 1987
1 - 14	2,806	22,609	20,285
15 - 24	1,308	25,548	24,371
25 - 49	1,818	65,793	62,560
50 - 99	1,705	128,353	114,207
100 - 249	1,223	209,955	178,827
250 - 499	320	137,399	107,215
500 - 999	105	115,105	68,383
1,000 and over	16	44,730	22,967
Total	9,301	749,492	598,815

Corn for grain was harvested on 25 percent of the farms in the state. About 64 percent of the farms had enterprises of 50 acres or less. These accounted for 18 percent of the acreage. The important reductions in acreage from 1982 occurred on the larger enterprises as suggested in Table 11. The drop in acreage for enterprises of 500 acres or more is particularly noticeable.

Corn for Silage

Corn for silage is a primary source of feed for livestock on New York farms. It is particularly important on most dairy farms. Corn for silage was harvested on nearly 12,000 farms. The bulk of the acreage was in enterprises of 25 to 250 acres (Table 12). The total acres of corn for silage decreased by almost 15 percent between 1982 and 1987. There were decreases in nearly all of the different size classes.

Table 12. CORN FOR SILAGE: FARMS AND HARVESTED ACRES
New York, 1982 and 1987

Acres harvested	Number of farms in 1987	Total acres	
		1982	1987
1 - 14	2,558	27,447	21,736
15 - 24	2,211	52,190	41,724
25 - 49	3,537	153,080	120,363
50 - 99	2,516	189,470	163,289
100 - 249	965	145,606	130,379
250 - 499	115	31,857	35,624
500 and over	18	15,456	12,343
Total	11,920	615,106	525,458

Oats

Oats continues as the most important of the small grains produced in the state even though the acreage harvested continues to decline. The trend has been rather steady since 1940.

Census year	Total Acres
1940	626,234
1950	563,728
1959	576,260
1969	361,600
1978	272,507
1982	249,804
1987	162,733

The drop in acreage and in numbers of producers from 1982 is important. Acreage decreased by one-third. The number of producers dropped from 9,422 in 1982 to 6,364 in 1987. There were decreases in acreage in each of the different size of enterprise classes (Table 13).

Table 13. OATS FOR GRAIN: FARMS AND HARVESTED ACRES
New York, 1982 and 1987

Acres harvested	Number of farms in 1987	Total acres	
		1982	1987
1 - 14	2,811	32,296	23,521
15 - 24	1,376	40,143	25,748
25 - 49	1,365	66,449	45,290
50 - 99	607	60,316	38,759
100 - 249	192	39,968	24,733
250 and over	13	10,632	4,682
Total	6,364	249,804	162,733

Other Small Grains

Wheat production also decreased between 1982 and 1987 from 116,994 to 86,345 acres. There have been other large ups and downs in wheat production. Only 64,655 acres were harvested in 1978, but 142,311 in 1969. Much depends on weather conditions and varieties available in the years the censuses are taken.

Numbers of farms reporting other field crops and the number of acres produced in 1982 and 1987 are listed below:

Crops	Farms Reporting		Total Acres	
	1982	1987	1982	1987
Dry edible beans	696	505	7,731	36,895
Soybeans	440	382	24,403	25,059
Barley	908	788	21,246	19,113
Rye	317	283	6,179	6,145
Buckwheat	348	224	8,960	5,607
Sorghum, forage	579	364	6,989	4,909
Sunflowers	26	25	2,168	1,360

Vegetables

Commercial vegetable production, both for fresh market and for processing, is an important part of commercial agriculture in New York. Irish potatoes are treated separately from vegetables in the census tabulations. It is a major crop with 602 farms producing 35,682 acres in 1987. This is an important decline from 1982 when 865 farms produced potatoes on 43,644 acres. All of the decreases occurred in Suffolk County where the acreage harvested fell from 18,998 to 10,358 acres. In contrast, Steuben County increased its acreage by more than 1,000 acres as did Genesee County.

Table 14. ALL VEGETABLES: FARMS AND HARVESTED ACRES
New York, 1982 and 1987

Acres harvested	Number of farms in 1987	Total acres	
		1982	1987
0.1 - 0.9	153	92	63
1.0 - 4.9	805	2,252	1,955
5.0 - 14.9	712	6,674	5,804
15.0 - 24.9	267	6,222	4,959
25.0 - 49.9	305	12,083	10,375
50.0 - 99.9	270	18,973	18,264
100.0 - 249.9	187	30,352	29,321
250.0 - 499.9	64	24,685	22,168
500.0 and over	59	56,683	57,146
Total	2,822	158,016	150,054

The acreage of commercial vegetable production (excluding potatoes) and its distribution by size of enterprise is presented in Table 14. Of the 150,000 acres, nearly 91.5 percent are on the 885 farms with 25 acres of vegetables or more. Over 38 percent of the total acreage is produced by the 59 farms with 500 acres or more of commercial vegetable production.

The census does not provide a breakdown between crops harvested for fresh market and for processing. Listed below are the total acreages of some of the more important vegetables harvested in 1987 and the acreages in the 1982 census.

	Total Acres	
Crop	1982	1987
Sweet corn	48,760	50,440
Snap beans	41,498	31,963
Cabbage	13,178	15,004
Onions	13,468	11,635
Peas	8,839	9,586
Tomatoes	4,738	3,824
Beets	4,482	3,625
Lettuce	3,639	3,347
Pumpkins	1,647	3,108
Cucumbers	2,393	2,944
Spinach	1,707	1,865
Squash	1,999	2,073
Cauliflower	2,251	1,551
Sweet peppers	1,416	1,306
Broccoli	358	1,262
Carrots	942	1,002

Sweet corn continues as the most important of these vegetable crops in terms of acreage. Cabbage was one of the major vegetables to also increase in acreage over 1982. Snap beans declined as did onions. The area devoted to peas increased by about 750 acres. Tomatoes and beets lost position. Pumpkins is now a much more important crop, almost doubling in acreage. Cucumbers was also a big gainer.

Fruit and Berries

The acreage in commercial fruit production decreased by nearly 9.5 percent between 1982 and 1987. Most of the decrease was in apples and grapes, the two principal crops. There were 3,290 farms reporting some acreage of fruit (Table 15). Of these, 1,076 had orchards or vineyards of 25 acres or more which accounted for 87 percent of the total. Those with 100 acres or more made up 57 percent of the total.

Table 15. LAND IN ORCHARDS AND VINES: FARMS AND ACREAGE
New York, 1982 and 1987

Acres harvested	Number of farms in 1987	Total acres 1982	Total acres 1987
0.1 - 4.9	968	2,838	2,146
5.0 - 14.9	891	8,763	7,573
15.0 - 24.9	355	8,525	6,674
25.0 - 49.9	430	17,273	14,925
50.0 - 99.9	311	24,420	21,329
100.0 - 499.9	314	57,387	55,367
500 acres and over	21	18,151	16,418
Total	3,290	137,357	124,432

The primary fruit crops in 1987 compared to 1982 were:

Crop	Total Acres 1982	Total Acres 1987
Apples	78,115	73,195
Grapes	42,832	36,916
Cherries, tart		5,443
Cherries, sweet	8,544	1,461
Pears	3,568	3,634
Peaches	3,038	2,596
Berries, all brambles	3,687	3,479
Strawberries	2,817	2,369
Plums and prunes	1,049	1,038

Among the fruit crops, pears was one of the few that increased in acreage over this five-year period. In general, the number of trees per acre has increased especially for apples as dwarf root stock is used to replace older trees.

Nursery and Greenhouse

Nursery and greenhouse operations have increased in numbers and importance between 1982 and 1987. Total acreage devoted to these intensive operations increased from 13,460 acres in 1978 to 14,242 in 1982 and 16,066 in 1987. Included in these totals are the lands used to produce sod and turf grass. Total sales increased from $108.8 million in 1982 to $168.2 million in 1987.

There were 1,795 farms reporting nursery and greenhouse operations in 1987 compared with 1886 in 1982. Over the five years, the area under glass or other protection increased from 19.6 million square feet to 24.0 million, a 22 percent increase. The counties with the largest areas of greenhouse space are Suffolk (40 percent of the total), Erie (10 percent of the total) and Monroe (5 percent of the total). The leading counties in terms of land area devoted to these crops are Suffolk, Erie and Orange.

LIVESTOCK

Dairy

Much of the cropland in New York is best suited for growing forage crops and these are converted most efficiently into saleable products over much of the State by dairy animals. Dairying is the dominant industry in most upstate counties. In 1987, there were 13,840 farms reporting one or more dairy animals. Unlike the crops, having a few dairy cows is not a very economic proposition unless it is one cow for family consumption. The 3,070 farms with less than 30 cows accounted for 22 percent of the farms and four percent of all the dairy cows (Table 16).

Table 16. NUMBER OF FARMS BY SIZE OF DAIRY MILKING HERD
New York, 1982 and 1987

Number of milk cows	Number of farms in 1987	Number of milk cows	
		1982	1987
1 - 4	1,308	4,259	2,480
5 - 9	315	2,796	2,007
10 - 29	1,447	44,977	30,368
30 - 49	3,776	190,797	147,988
50 - 99	5,178	382,120	343,965
100 - 199	1,492	178,994	190,489
200 - 499	295	61,075	76,888
500 and over	29	10,095	20,276
Total	13,840	875,113	814,461

The size class with the most farms and the most cows was 50-99 milking animals. Most of the decreases in cows between 1982 and 1987 occurred on the farms with less than 100 cows. There were important reductions in each of the small herd sizes as some individuals moved out of dairying and others increased herd size. In the three larger herd sizes, cow numbers increased as has been generally true during the same period throughout the United States.

Beef Cattle

The other important user of pasture and forage crops in the State is the beef cattle industry. Cow-calf operations are the most important component of this industry although some animals are also fed out to slaughter weights.

Table 17. BEEF CATTLE: FARMS AND NUMBERS
New York, 1982 and 1987

Number of beef cows	Number of farms in 1987	Total number of beef cows	
		1982	1987
1 - 9	4,477	23,070	17,688
10 - 19	1,433	18,210	18,643
20 - 49	725	20,921	20,538
50 - 99	124	9,038	7,720
100 - 199	25	3,393	2,949
200 and over	14	3,080	4,089
Total	6,798	77,712	71,627

The number of farms reporting beef cows in 1987 was 6,798, down quite sharply from 1982 when there was 8,661. Much of this decline in numbers is associated with farms reporting 1-9 cows, 4,477 in 1987 compared to 6,311 in 1982. In most of the other size categories, there was substantial stability (Table 17). The number of farms with 100 cows or more remains small, 39 such operations accounting for about 10 percent of all the cattle.

Laying Hens and Pullets

Egg production is the most important reason for keeping poultry in New York. This industry decreased by about one-third between 1982 and 1987 as numbers of layers decreased from 6.9 million to 4.7 million. There were 49 farms in 1987 with 20,000 hens or pullets of laying age or more. These 49 farms accounted for 88 percent of the state's laying flock (Table 18).

Table 18. HENS AND PULLETS OF LAYING AGE
New York, 1982 and 1987

Hens and pullets of laying age	Number of farms in 1987	Total number of hens and pullets	
		1982	1987
1 - 99	2,801	95,831	61,982
100 - 399	241	49,654	35,028
400 - 1,599	45	44,835	31,792
1,600 - 3,199	21	90,079	44,480
3,200 - 19,999	38	712,885	371,285
20,000 - 49,999	25	1,082,411	778,799
50,000 - 99,999	14	1,225,800	892,634
100,000 and over	10	3,641,286	2,472,275
Total	3,195	6,942,781	4,688,275

There were decreases in numbers of farms with laying hens in each of the size categories in comparison with 1982. Most of the decrease in numbers reporting layers was in the smallest size category as individuals gave up keeping a small family flock. The tendency for most of the egg production to be concentrated on a few large farms is common throughout the United States.

Other Poultry

There were 206 farms reporting broilers and other meat-type chickens in 1987 compared with 282 in 1982. Production was up, however, by 4.5 times in 1987 with 1.7 million birds sold compared with 380,000 in 1982. Most of this production was concentrated on the nine farms with 100,000 birds or more.

Turkey production also increased between 1982 and 1987. There were 241 farms reporting turkeys in 1987 with 494,000 sold during the year compared with 312,000 in 1982. There were 10 farms that sold more than 2,000 turkeys during the year.

Hogs and Pigs

The number of farms reporting hogs or pigs declined by 39 percent from 4,325 in 1982 to 2,644 in 1987. Most of this decrease was in farms with 1-24 pigs (Table 19). The number of hogs and pigs declined by 16 percent. Most of this occurred by reductions of numbers in the smaller enterprises. There were 110 farms with 200 hogs or more. They accounted for 50 percent of total numbers.

Table 19. HOGS AND PIGS: FARMS AND INVENTORY NUMBERS
New York, 1982 and 1987

Number of hogs and pigs	Number of farms in 1987	Total number of hogs and pigs	
		1982	1987
1 - 24	2,126	20,004	12,510
25 - 49	198	8,632	6,922
50 - 99	118	10,591	8,180
100 - 199	92	15,914	12,191
200 - 499	77	28,504	23,091
500 and over	33	34,742	36,666
Total	2,644	118,378	99,560

Sheep and Lambs

The number of farms reporting sheep and lambs increased from 1,813 in 1982 to 1,943 in 1987. The total number of sheep and lambs increased by 13 percent to 76,447 (Table 20). Numbers increased in all the different sizes of enterprises except for those with flocks of 1,000 or more. Over half of the sheep are in enterprises with 25 to 300 head. There were 35 farms with 300 or more sheep accounting for 28 percent of total numbers.

Table 20. SHEEP AND LAMBS: FARMS AND INVENTORY NUMBERS
New York, 1982 and 1987

Number of sheep and lambs	Number of farms in 1987	Total number of sheep and lambs	
		1982	1987
1 - 24	1,240	10,241	11,473
25 - 99	554	23,544	25,798
100 - 299	114	15,203	17,793
300 - 999	30	9,063	13,671
1,000 and over	5	9,470	7,712
Total	1,943	67,521	76,447

Other Livestock

In 1987, there were 8,308 farms reporting 53,435 horses in contrast to 8,718 farms in 1982 with 48,059 horses, an increase of 11 percent in numbers. There were 1,110 farms reporting colonies of bees in 1987 down from 1,360 in 1982. Total numbers of colonies was 62,978, essentially the same as in 1982 with 62,793.

There were 1,288 farms reporting goats in 1987 compared with 1,399 in 1982. Numbers were up to 9,382 in 1987 compared to 7,529 in 1982.

Thirty farms reported 38,161 mink in 1987 compared to 29 farms with 37,628 mink in 1982, a relatively stable, small industry. There were 635 farms reporting 13,887 rabbits in 1987 up from 452 farms reporting 11,571 rabbits in 1982.

STATE MAPS

Twenty-five maps depicting concentrations by county of major agricultural commodities or characteristics of the New York agricultural industry follow this discussion. These maps provide a means to obtain spatial perspective on the geographic distribution of the State's agriculture. Each map is shaded from white to depict relatively low levels of activity, to single lines to represent intermediate density, to cross hatching for the highest levels. Within the borders of each county are the corresponding data and at the bottom of each map is the State total or average. For those unfamiliar with the State, a map including county names is included on page 31.

Farm Numbers, Land in Farms, and Value of Agricultural Product Sales

There is a wide and relatively even distribution of farms over the State with most counties containing a minimum of three to four hundred farms (Figure 1). Chautauqua County has the largest number of farms with over 1,900, second is St. Lawrence County with over 1,600 farms.

Land in farms exhibits a similar distribution to farm numbers (Figure 2). St. Lawrence County has the largest number of acres in farms with over 450,000 acres devoted to agriculture. Harvested cropland is a measure of the amount of land in each county which provides the basis for most of the production (Figure 3). St. Lawrence County also has the largest number of acres of harvested cropland at 174,000 followed closely by Steuben County at 172,000 and Jefferson County at 161,000. Total cropland acres measures the amount of land normally used for crop production (Figure 4). St. Lawrence County, at 243,000 acres, has the largest number of acres followed by Steuben, Jefferson, and Cayuga Counties.

Total cropland as a percent of land in farms enables a comparison of the intensity of use of land in farms from county to county (Figure 5). Relatively high percentages indicate that a large proportion of the land in farms was used for crops and a low percentage the opposite. All of the counties in the Finger Lakes and Western plains have a higher than average percentage with Nassau, Suffolk, Niagara, Monroe, Seneca, Orleans, and Genesee Counties having the highest percentages.

The value of agricultural products sold represents the gross market value before taxes and production expenses are subtracted from the total (Figure 6). Suffolk County with sales of over 115 million dollars had the greatest output, followed by Wyoming, St. Lawrence, and Chautauqua Counties. Fifteen counties recorded a value of agricultural products sold in excess of 60 million dollars in 1987.

A measure of the proportion of farms that are part-time or residential farms can be obtained by calculating the percent of total farms with sales less than $40,000 (Figure 7). Along the corridor from Ulster to Essex Counties and west of a line from Broome to Oswego Counties includes the greatest proportion of small farms.

Farms with sales of $100,000 or more represents average and larger "commercial farms" (Figure 8). The number of farms with sales of $100,000 or more is greatest in Jefferson County followed by Wyoming, Washington, Madison, and Oneida Counties.

Field Crops

Corn for grain acreage had steadily increased in recent years. The 1987 Census showed a significant reduction in corn acreage. The Finger Lakes and Western Plains regions are the centers of corn grain production in the State (Figure 9). Cayuga County had the largest corn for grain acreage -- over 54,000, followed by Ontario, Livingston, Wayne, Genesee, Orleans, and Seneca Counties.

Corn silage acreage has remained relatively stable in recent years, although it too decreased in 1987. Corn silage acreage is more widely distributed over the State than is corn for grain (Figure 10). Wyoming, St. Lawrence, Washington, Madison, and Jefferson Counties have the largest acreages of corn silage.

The acreage of hay is widely distributed over the State (Figure 11). St. Lawrence County has the largest acreage; when combined with five other Northern New York counties they account for approximately one-fifth of the total hay acreage of the State. Central New York and the Western Southern Tier are other areas where large concentrations of hay acreage occur.

Oats for grain is the third most important crop in terms of acreage and is concentrated in Western New York and the Finger Lakes region (Figure 12). Steuben County has the largest oat acreage followed by Cayuga, Ontario, and Livingston Counties.

Vegetable Crops

New York's vegetable, sweet corn, and melon acreage is centered in Western and Central New York along with large acreages in Orange and Suffolk Counties in Southeastern New York (Figure 13). Genesee and Orleans Counties have the largest acreages accounting for almost one-fourth of the State total.

Potato acreage is concentrated in Western New York with Steuben, Wyoming, Wayne, Genesee, and Livingston Counties accounting for approximately 45 percent of the State's potato acreage (Figure 14). Suffolk County is the largest potato county with over 10,000 acres of potatoes.

Orchards and Vineyards, and Nursery and Greenhouse Product Sales

Orchard and vineyard acreage is found in four important areas of the State (Figure 15). The Finger Lakes and Western New York regions are dominant with a significant acreage in the Hudson Valley and a smaller acreage in the Northern New York counties of Clinton and Essex along Lake Champlain. Apple acreage is concentrated along the shores of Lake Ontario in Western New York and in the Hudson Valley, primarily in Ulster County (Figure 16). Grape acreage is concentrated in Chautauqua County and the Finger Lakes region (Figure 17). Suffolk County has shown a significant increase in acreage in recent years.

Sales of nursery and greenhouse products are highest in the metropolitan areas of the State (Figure 18). Suffolk County recorded sales of 67 million dollars or approximately 40 percent of the State total. Other counties with large sales were Erie, Orange, Monroe, and Columbia.

Livestock and Poultry

The distribution of milk cows across the State finds every county other than metropolitan New York City, Long Island, and the Adirondacks, with significant numbers of dairy cows (Figure 19). St. Lawrence and Jefferson Counties have the largest cow inventories followed by Wyoming, Oneida, Madison, Washington, and Lewis Counties.

The inventory of beef cows is also widespread throughout the State with the Western Southern Tier counties showing the greatest numbers (Figure 20). Finger Lakes and Western New York regions have the largest concentrations of hogs and pigs (Figure 21). The sheep and lamb inventory is largely located in Livingston, Ontario, Yates, and Steuben Counties (Figure 22).

Economic Characteristics

Farm production expenditures totaled approximately 1.9 billion dollars in 1987 (Figure 23). Production expenditures include normal operating expenses such as feed, seed, fuel, labor, property taxes, repairs, and interest on debt. It does not include machinery and equipment or real estate purchases or depreciation on capital assets. Farms in almost every county purchased over 20 million dollars in inputs, adding in an important way to value-added in the county economy.

Net cash return from agricultural sales was over 516 million dollars in 1987 (Figure 24). Net cash return was calculated by the Census simply by subtracting cash expenses from cash receipts. Suffolk, Chautauqua, and Oneida Counties recorded the largest net return from agricultural sales.

Net cash return per farm averaged $13,690 in 1987 (Figure 25). Suffolk County averaged $44,000 net cash return per farm, the highest in the State.

New York State Counties.

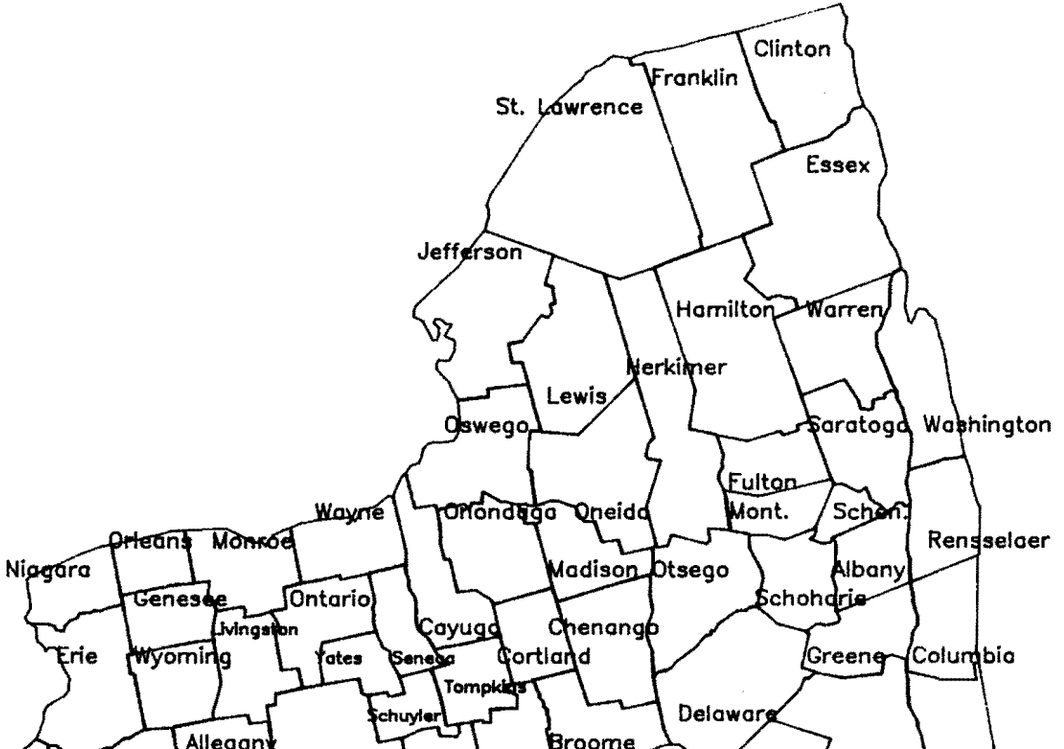
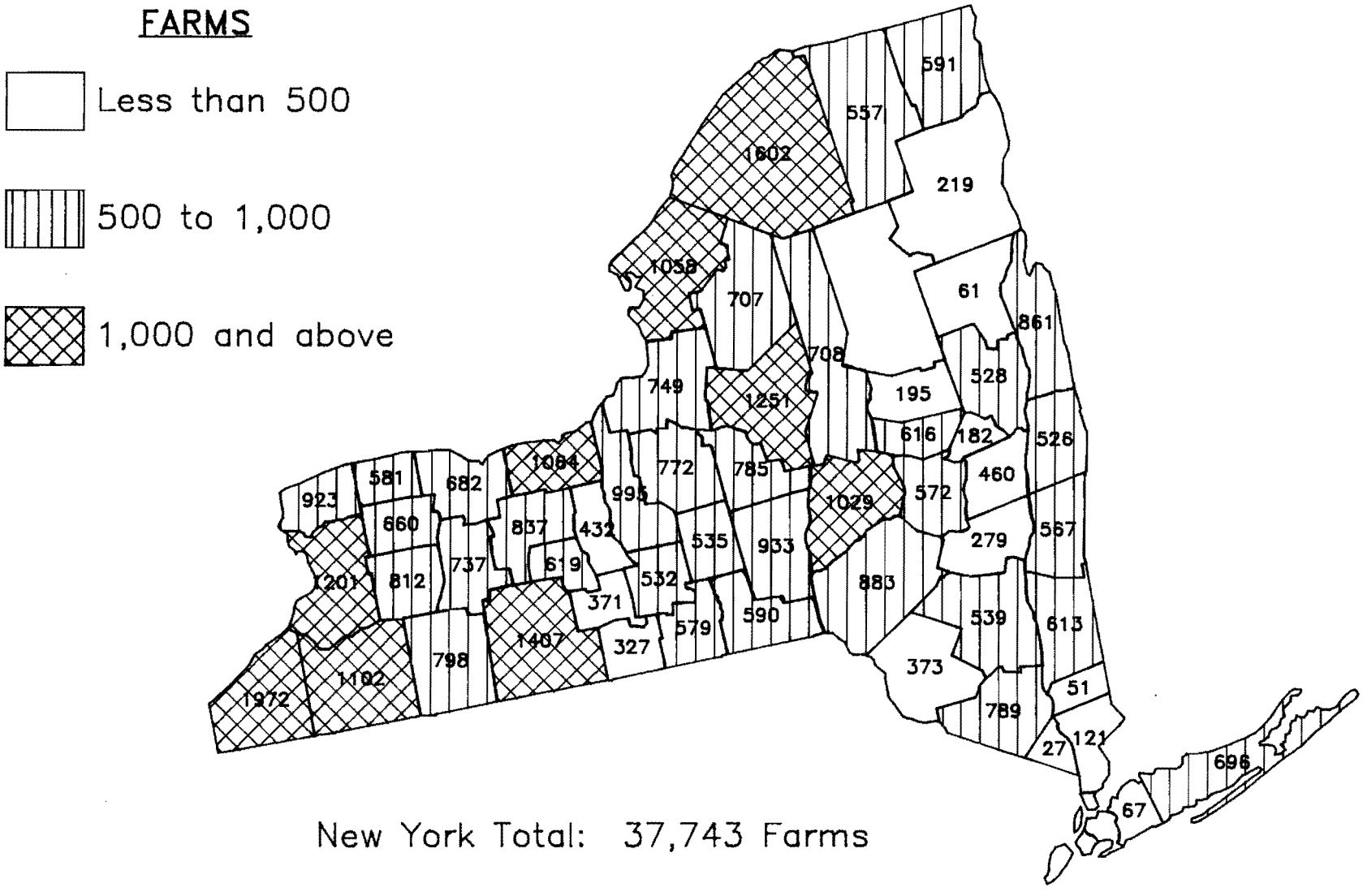
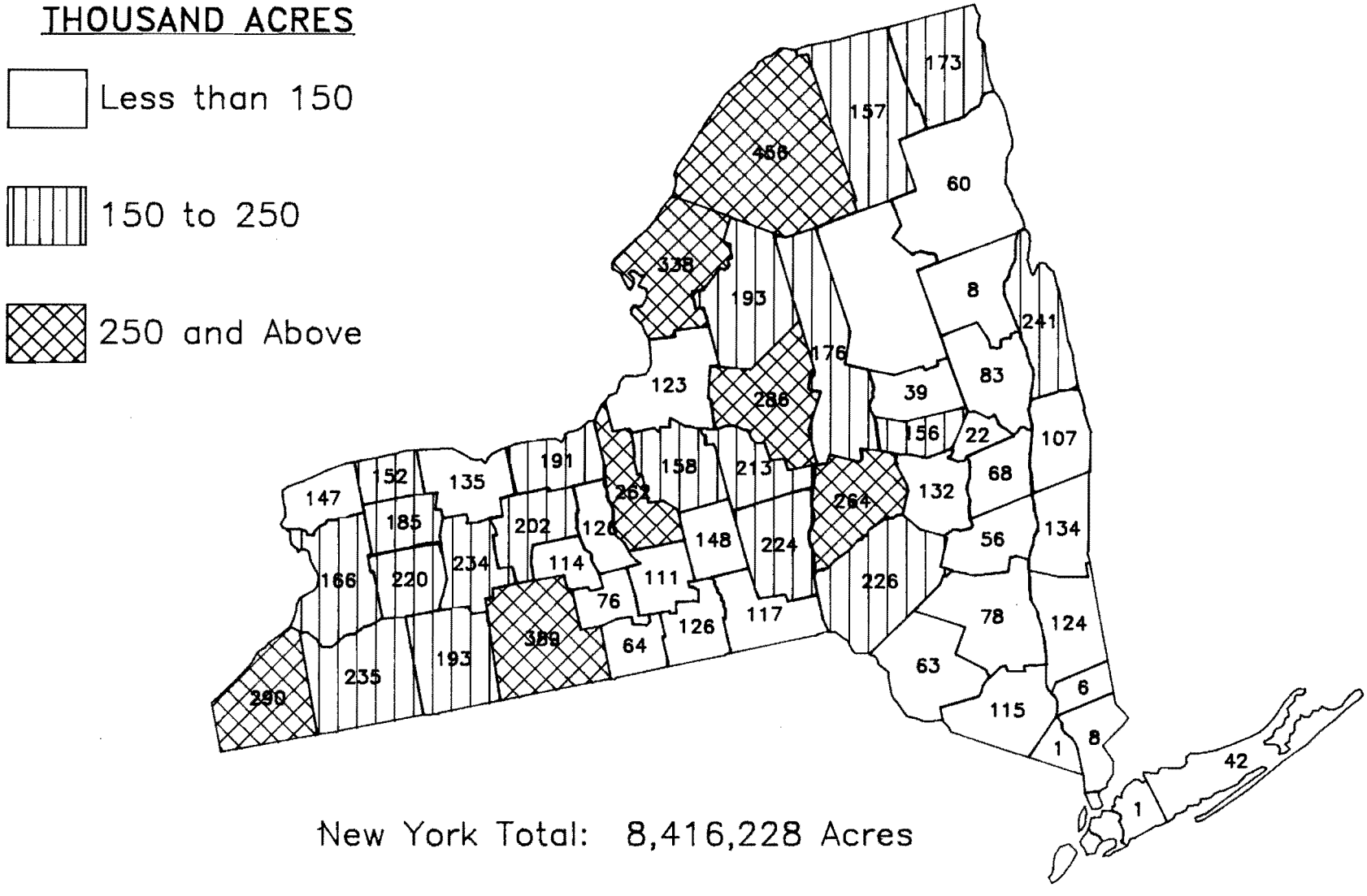


Figure 1. Number of Farms, 1987.



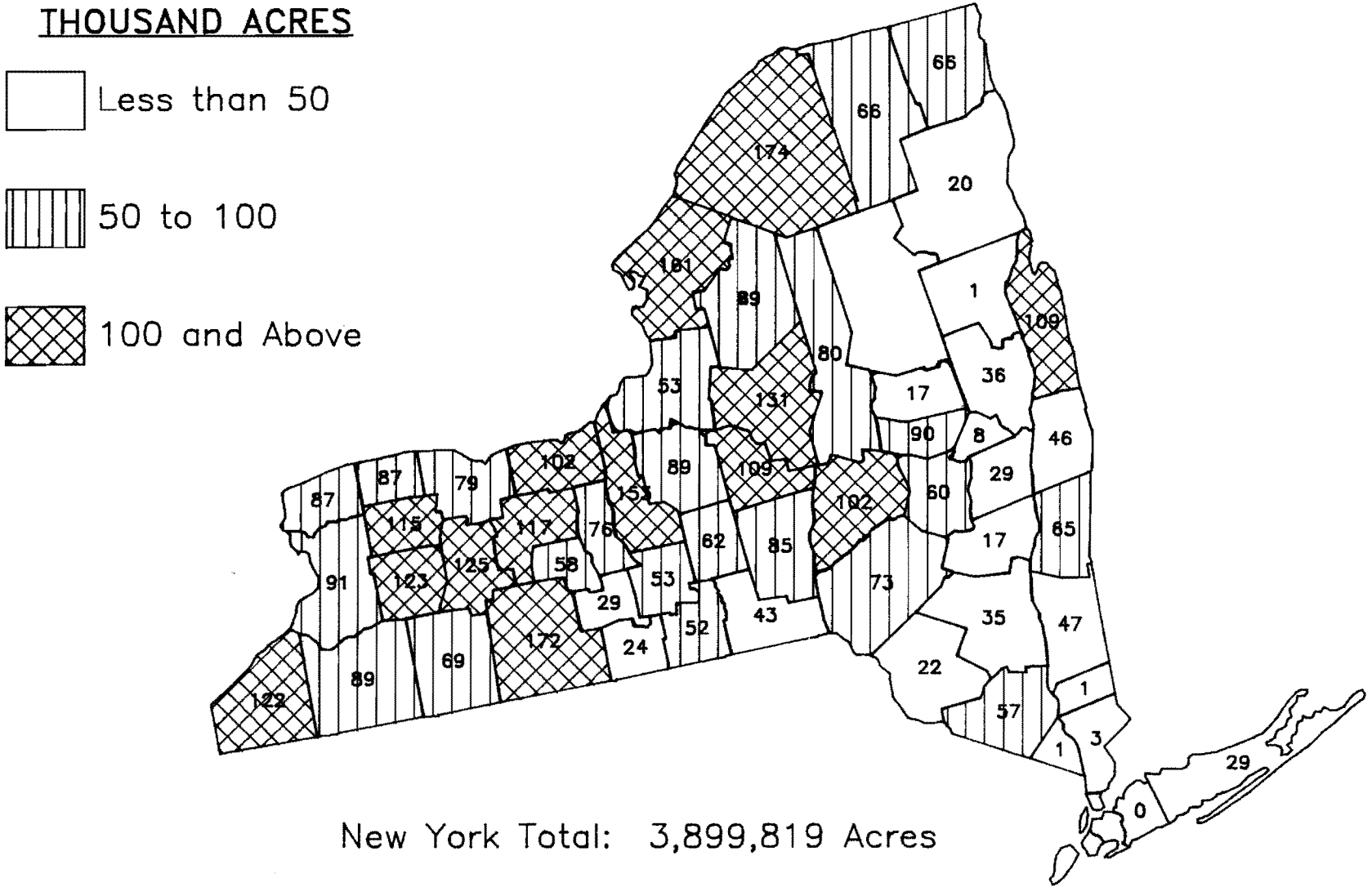
New York Total: 37,743 Farms

Figure 2. Land in Farms, Thousand Acres, 1987.



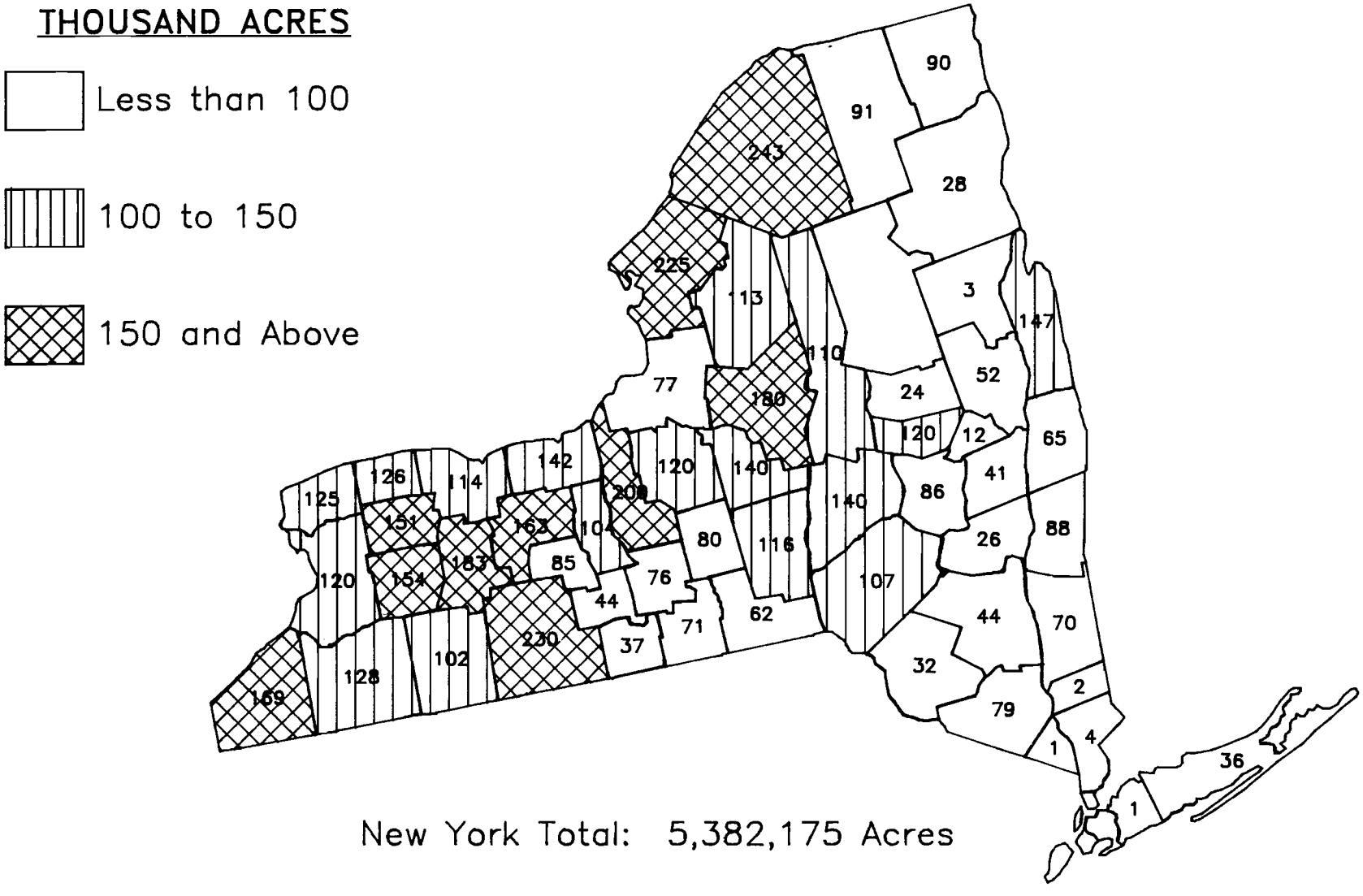
New York Total: 8,416,228 Acres

Figure 3. Harvested Cropland, Thousand Acres, 1987.



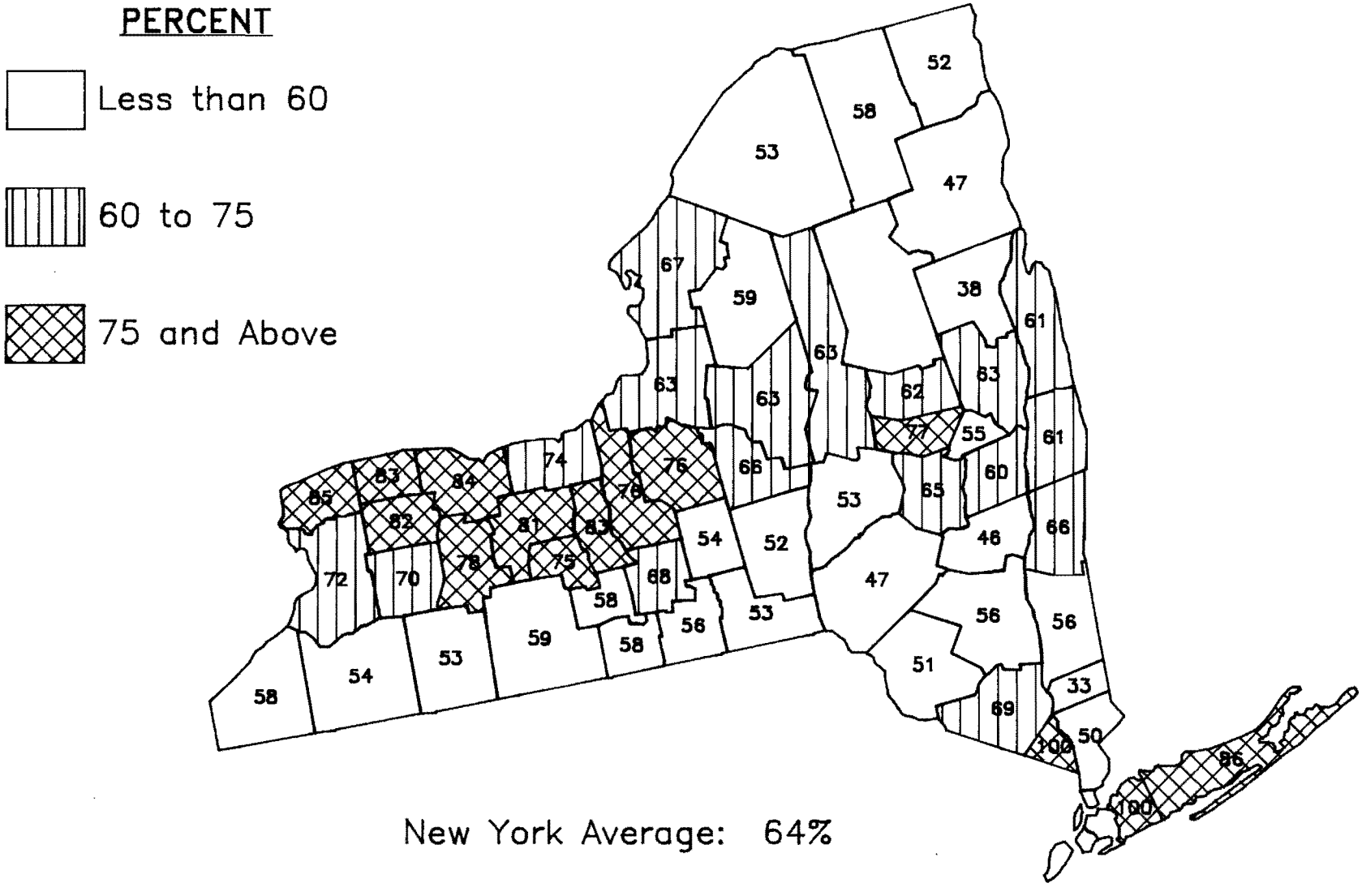
New York Total: 3,899,819 Acres

Figure 4. Total Cropland, Thousand Acres, 1987.



New York Total: 5,382,175 Acres

Figure 5. Total Cropland as a Percent of Land in Farms, 1987.



New York Average: 64%

Figure 6. Value of Agricultural Products Sold, $Millions, 1987.

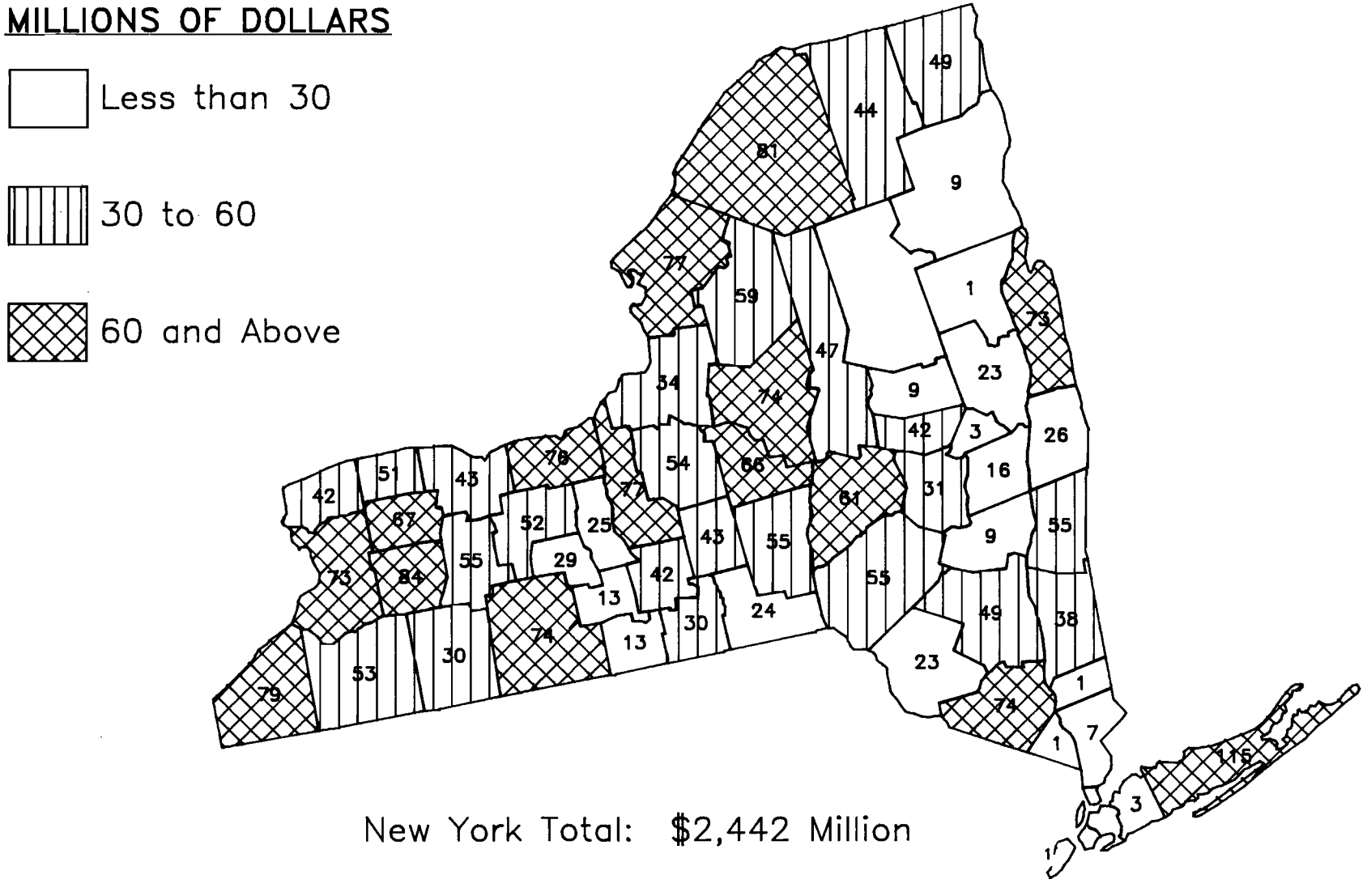


Figure 7. Percent of Farms with Sales Less Than $40,000, 1987.

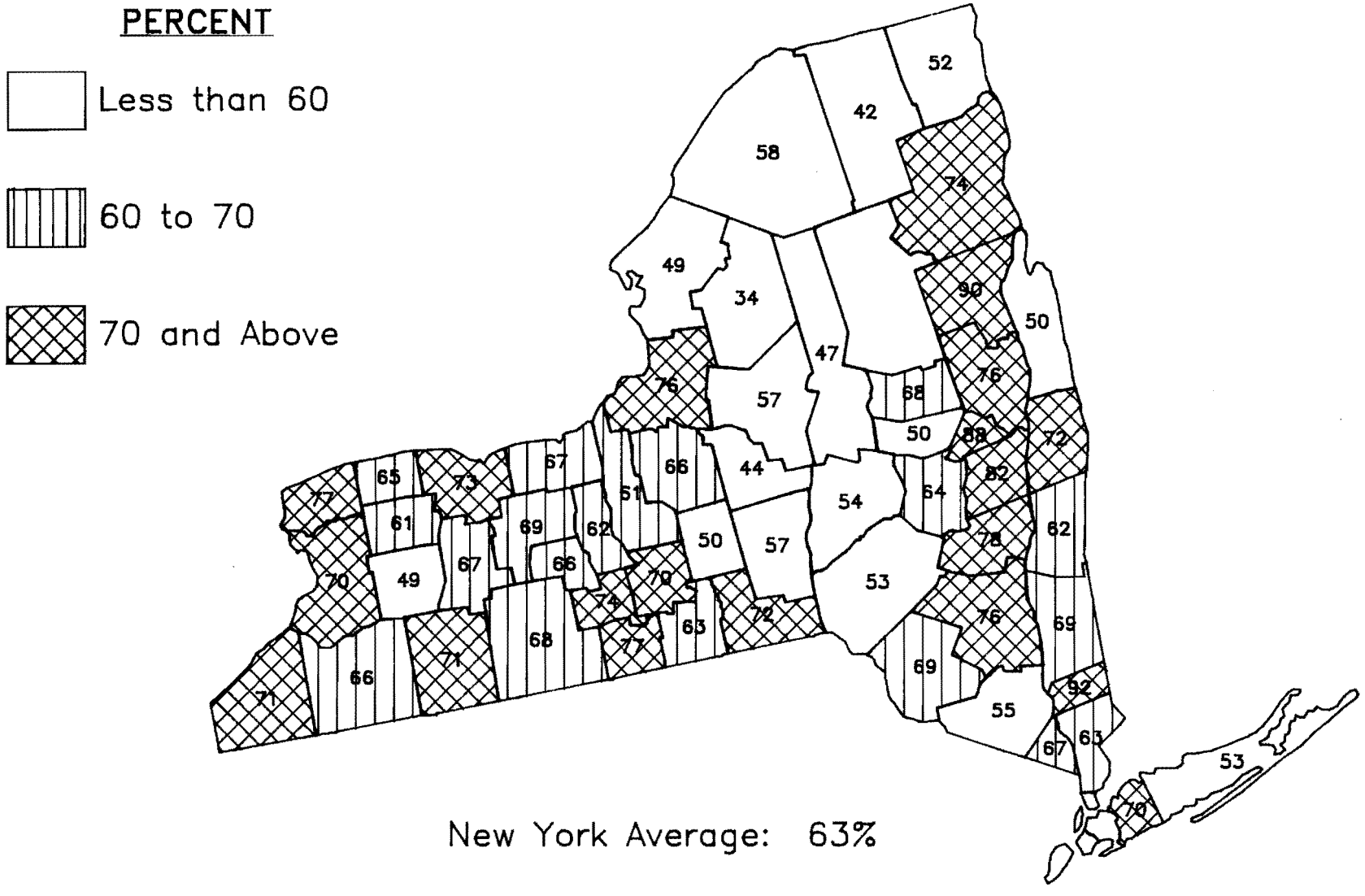


Figure 8. Number of Farms with $100,000 or More of Sales, 1987.

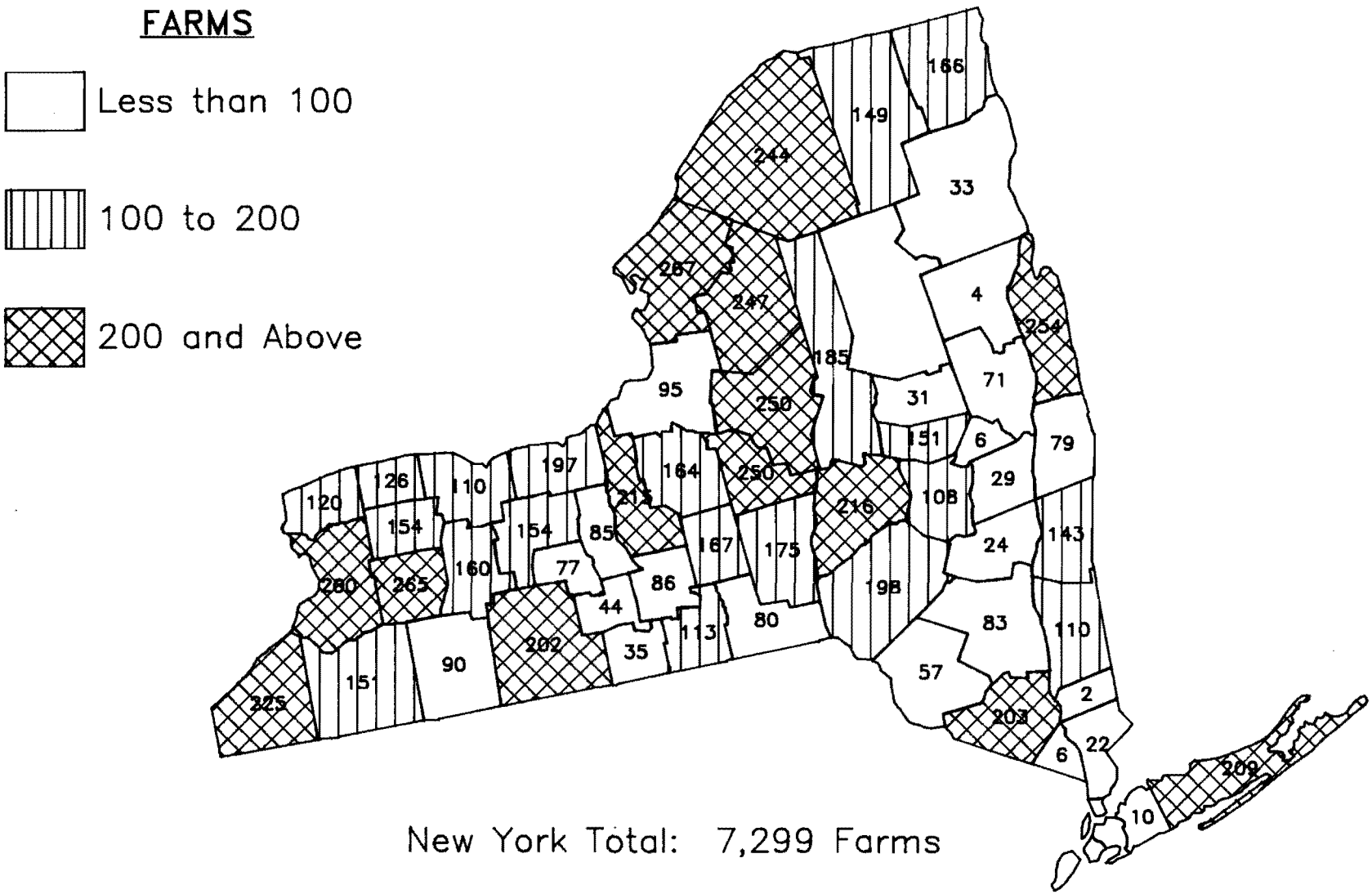


Figure 9. Corn Grain Acreage, Thousands, 1987.

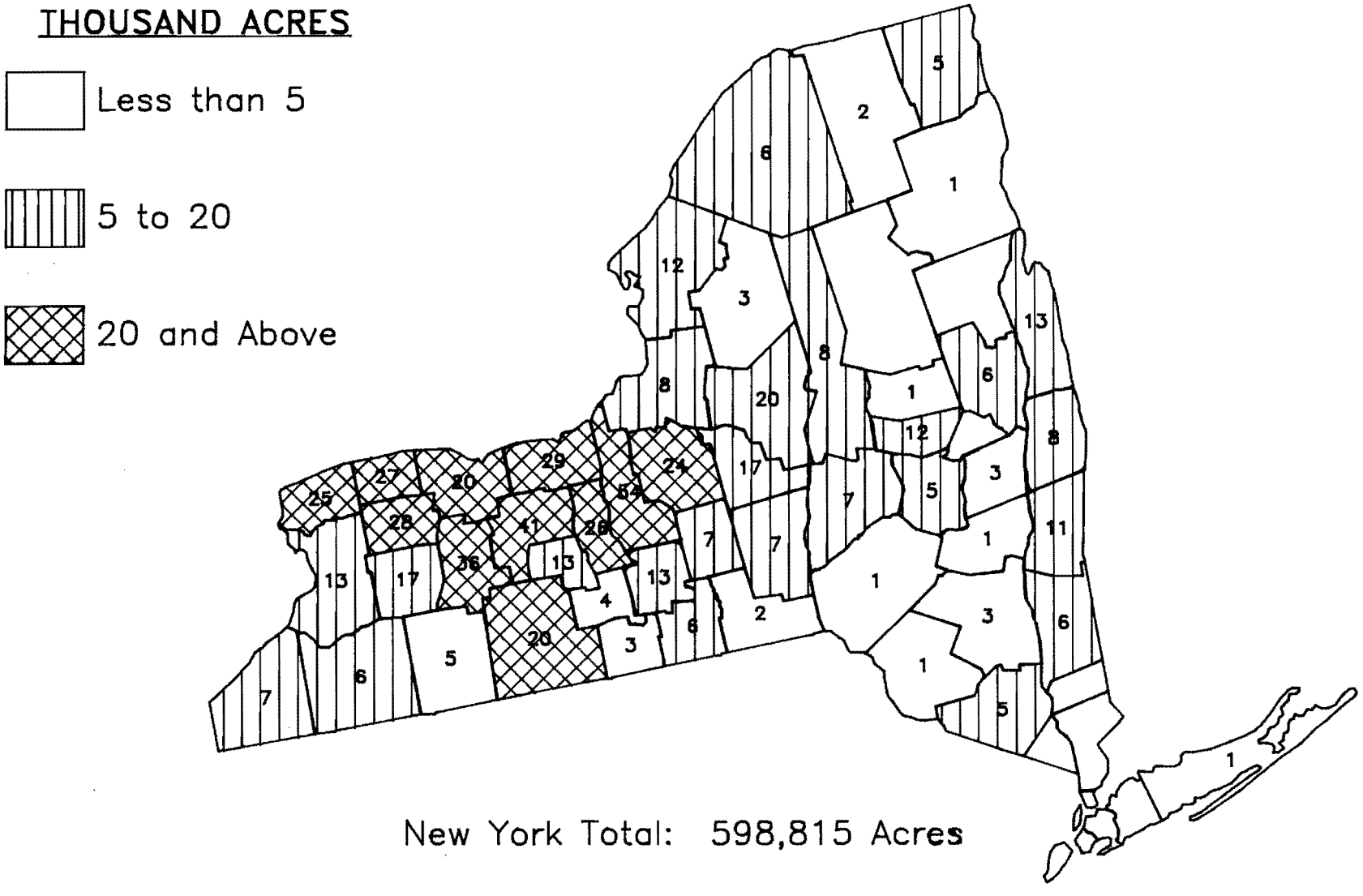


Figure 10. Corn Silage Acreage, Thousands, 1987.

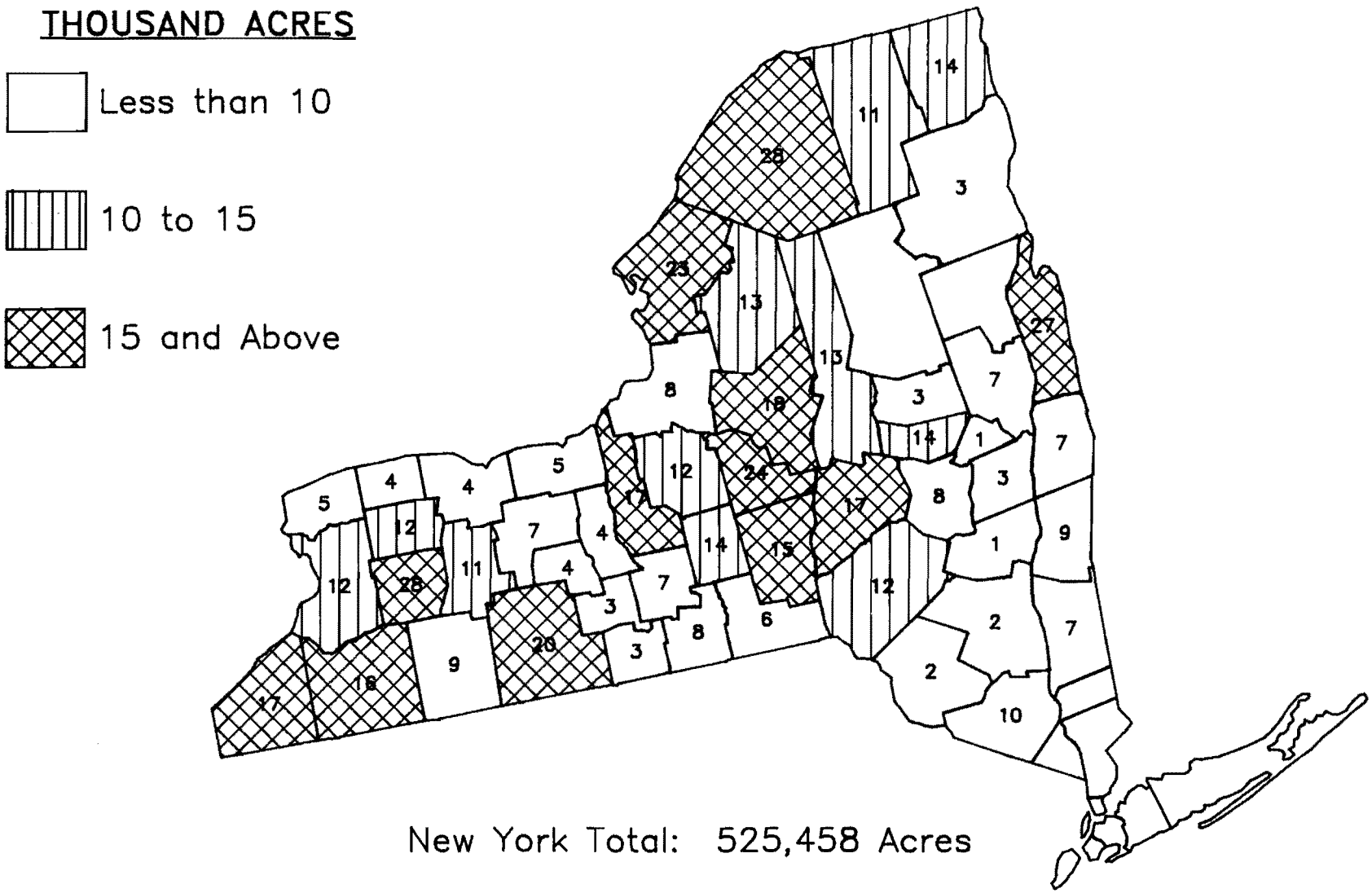
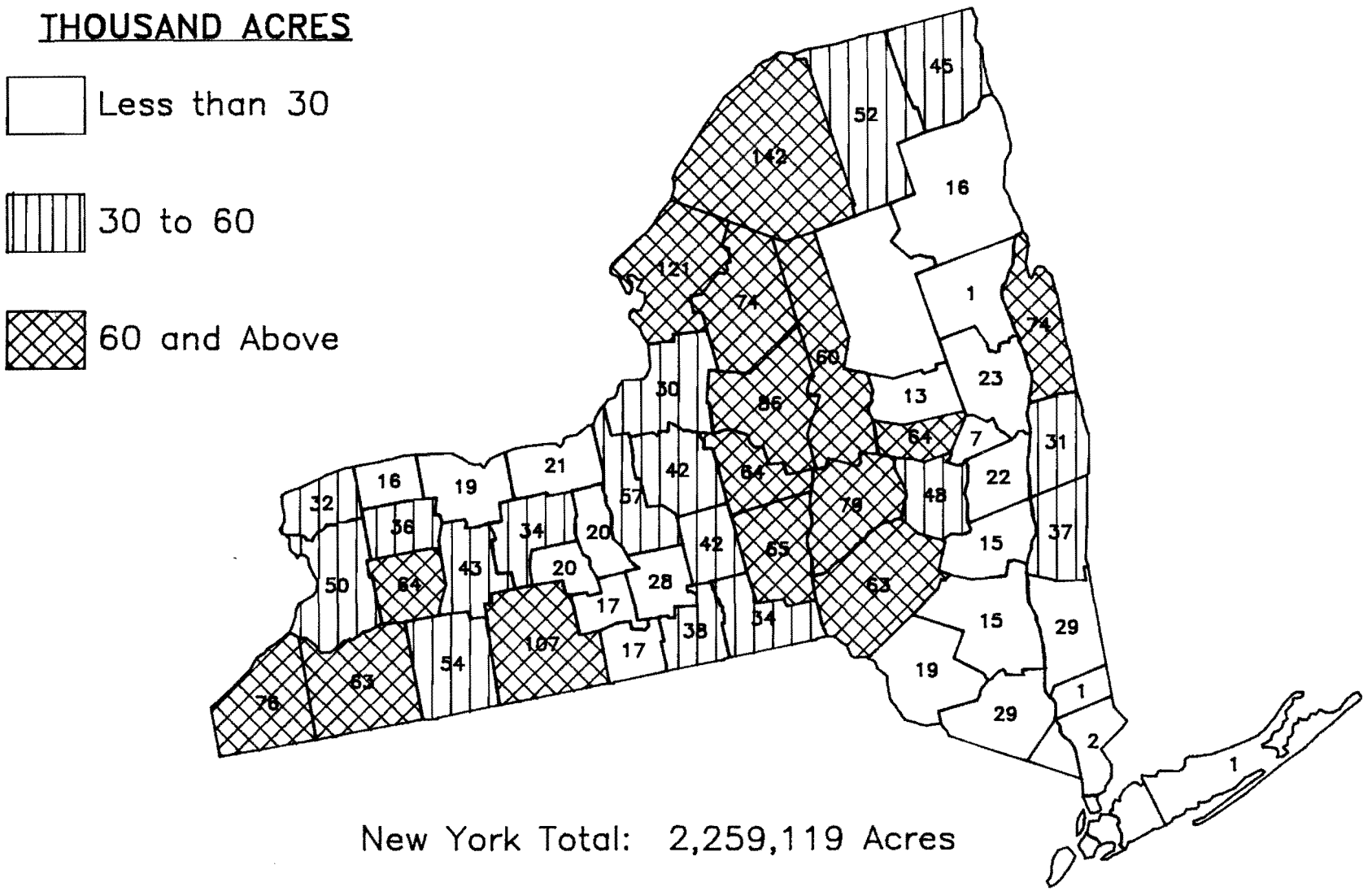
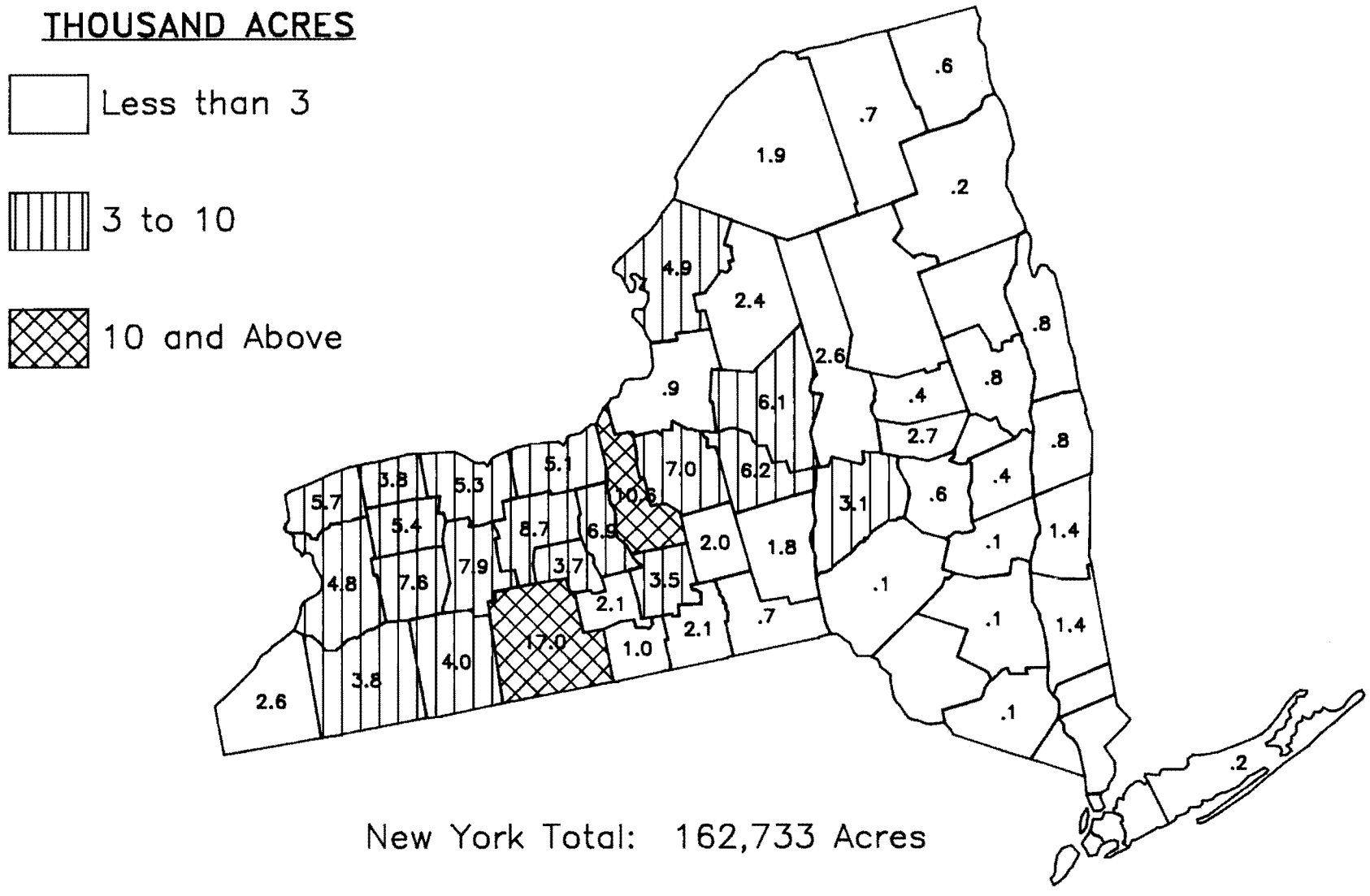


Figure 11. Hay Crops Acreage, Thousands, 1987.



New York Total: 2,259,119 Acres

Figure 12. Oats for Grain Acreage, Thousands, 1987.



New York Total: 162,733 Acres

Figure 13. Vegetables, Sweet Corn, and Melons Acreage Harvested for Sale, Thousands, 1987.

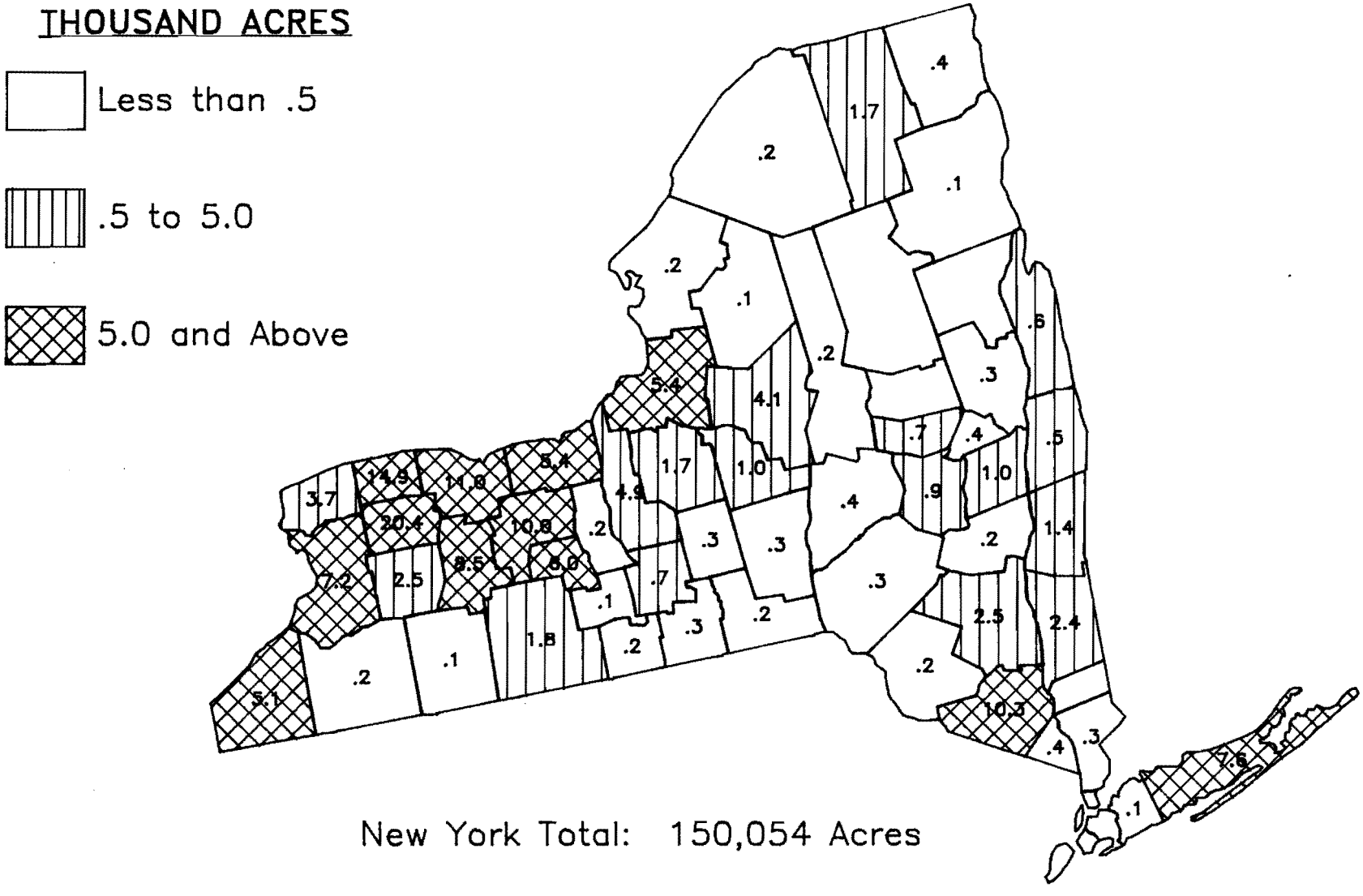
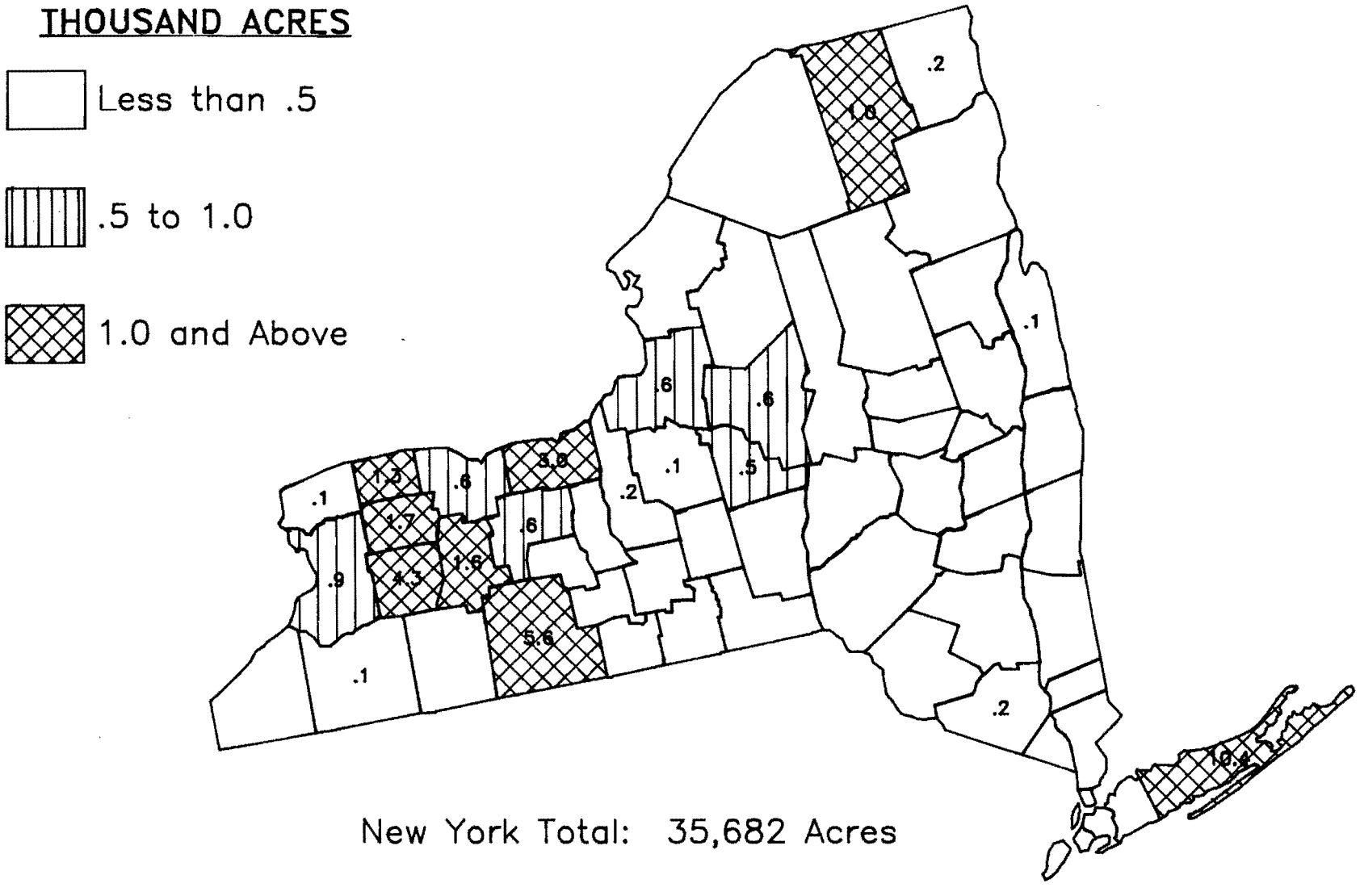
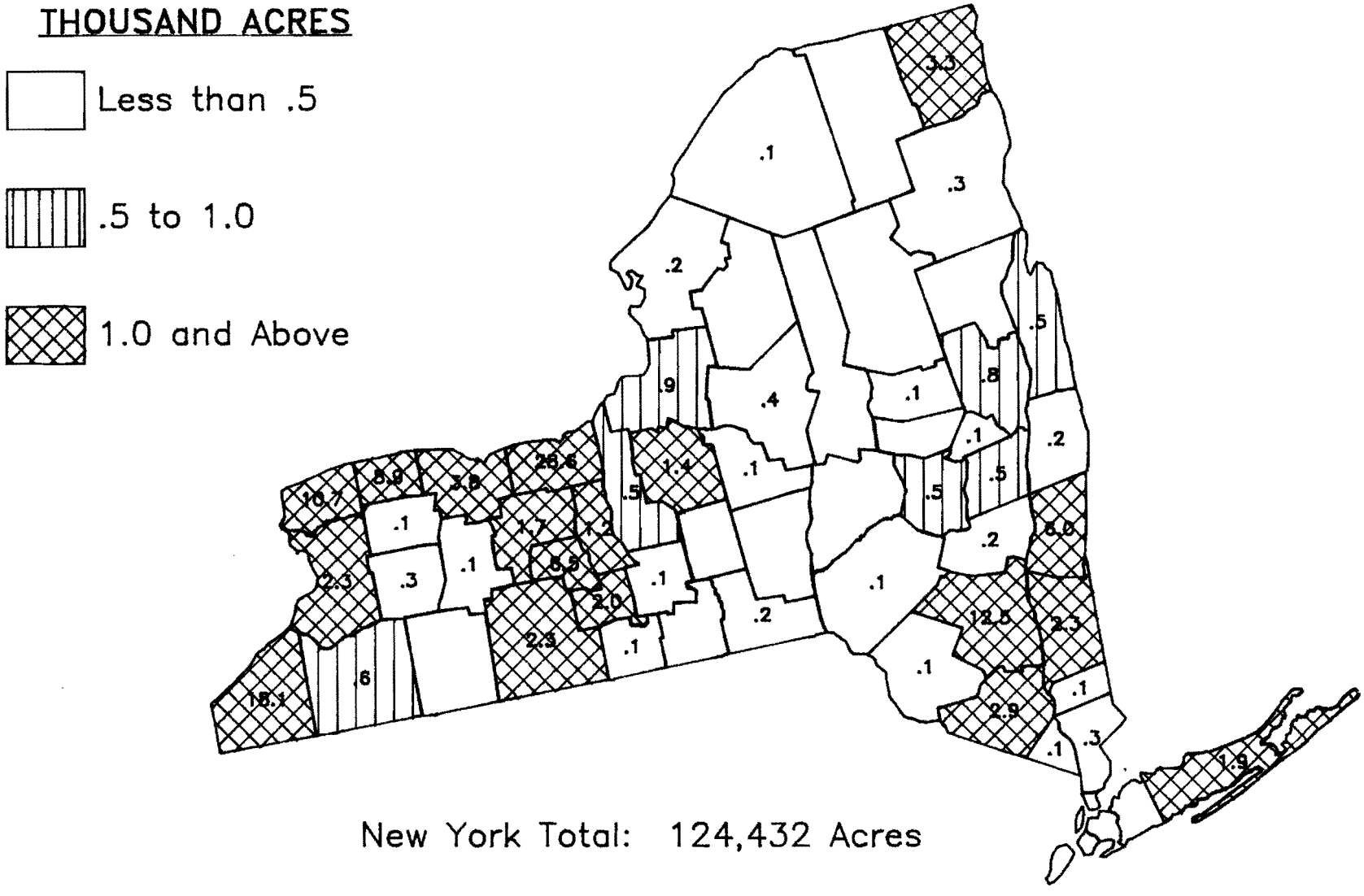


Figure 14. Potato Acreage, Thousands, 1987.



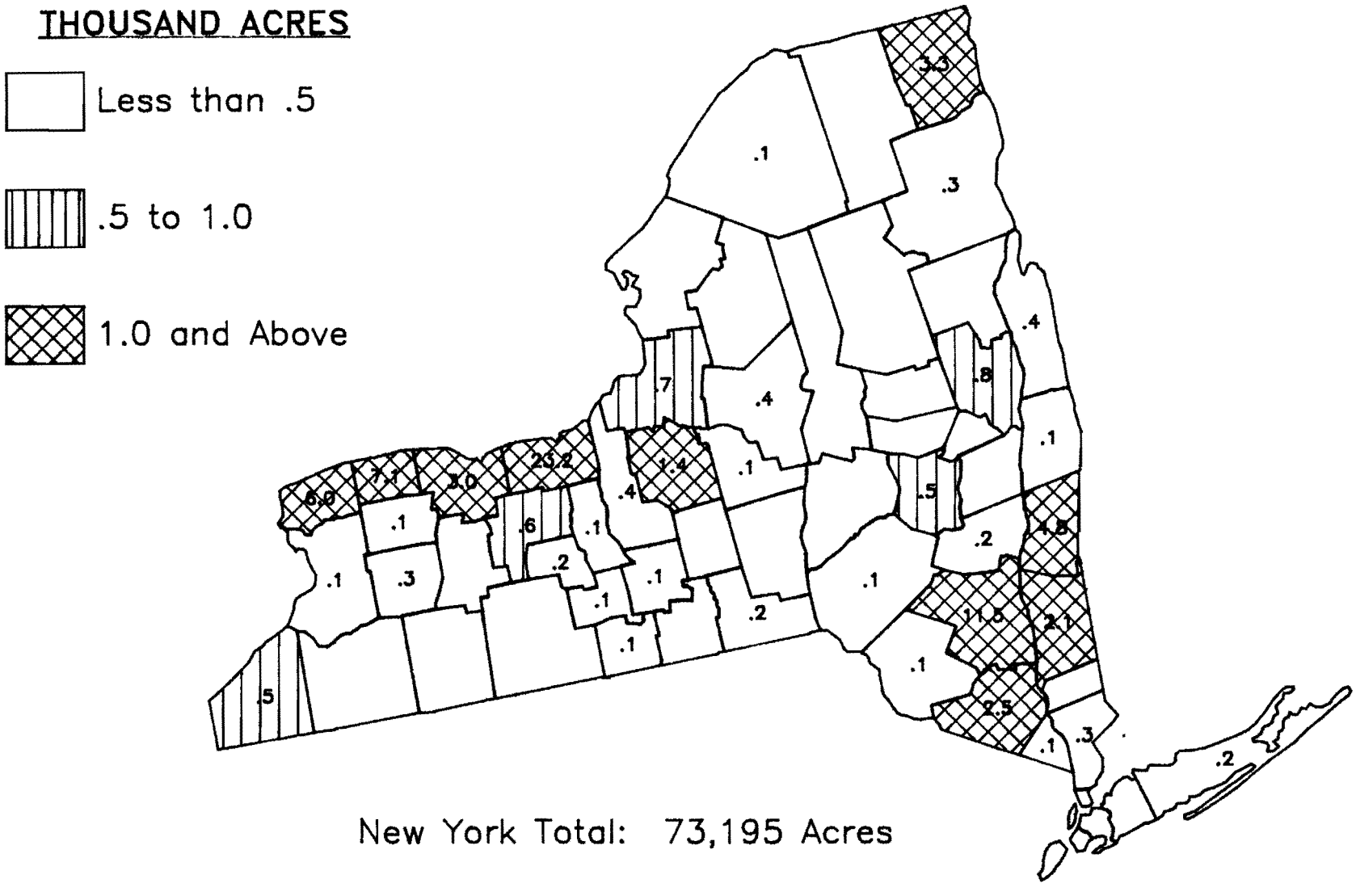
New York Total: 35,682 Acres

Figure 15. Orchards and Vineyards Acreage, Thousands, 1987.



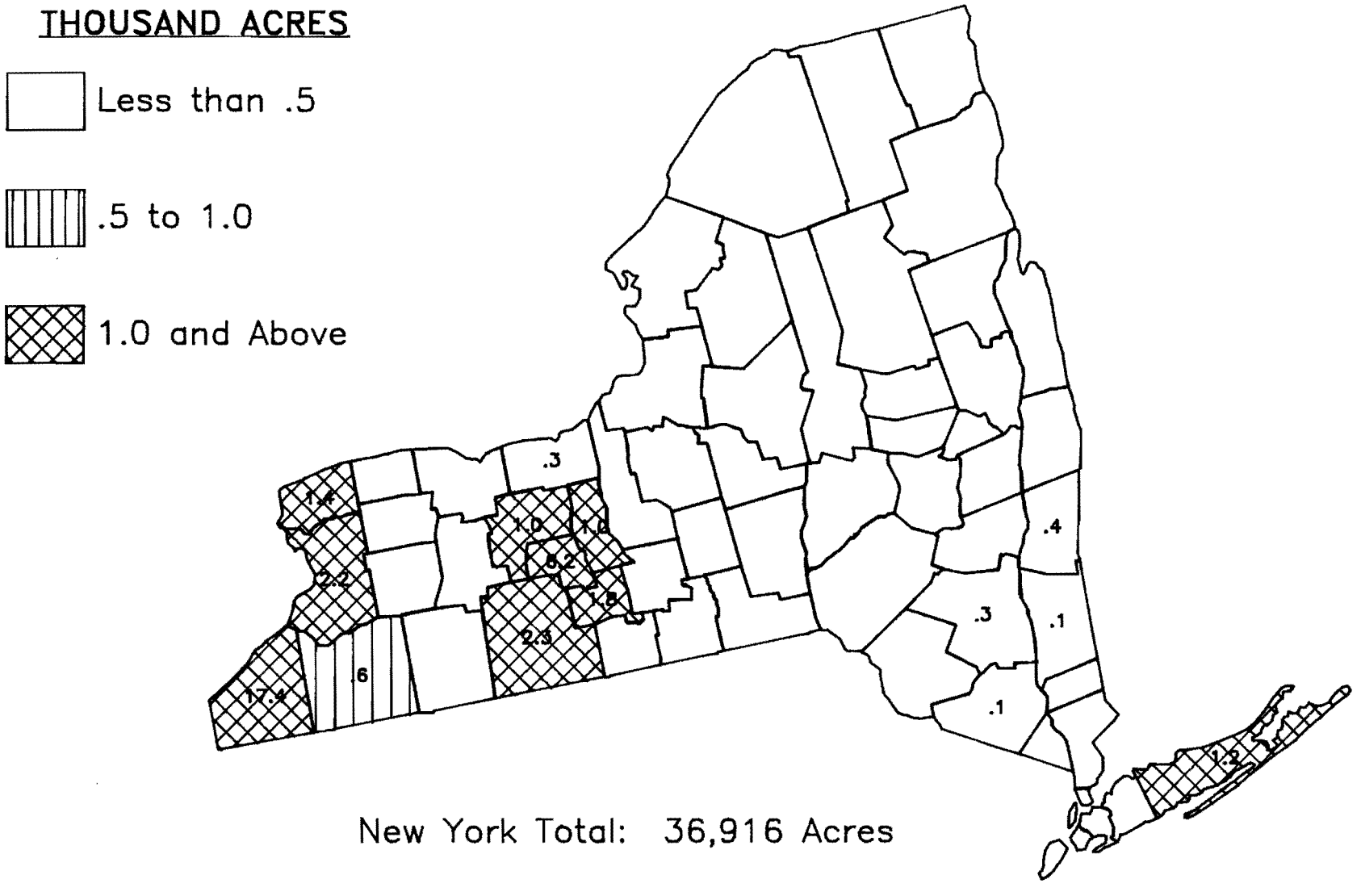
New York Total: 124,432 Acres

Figure 16. Apple Acreage, Thousands, 1987.



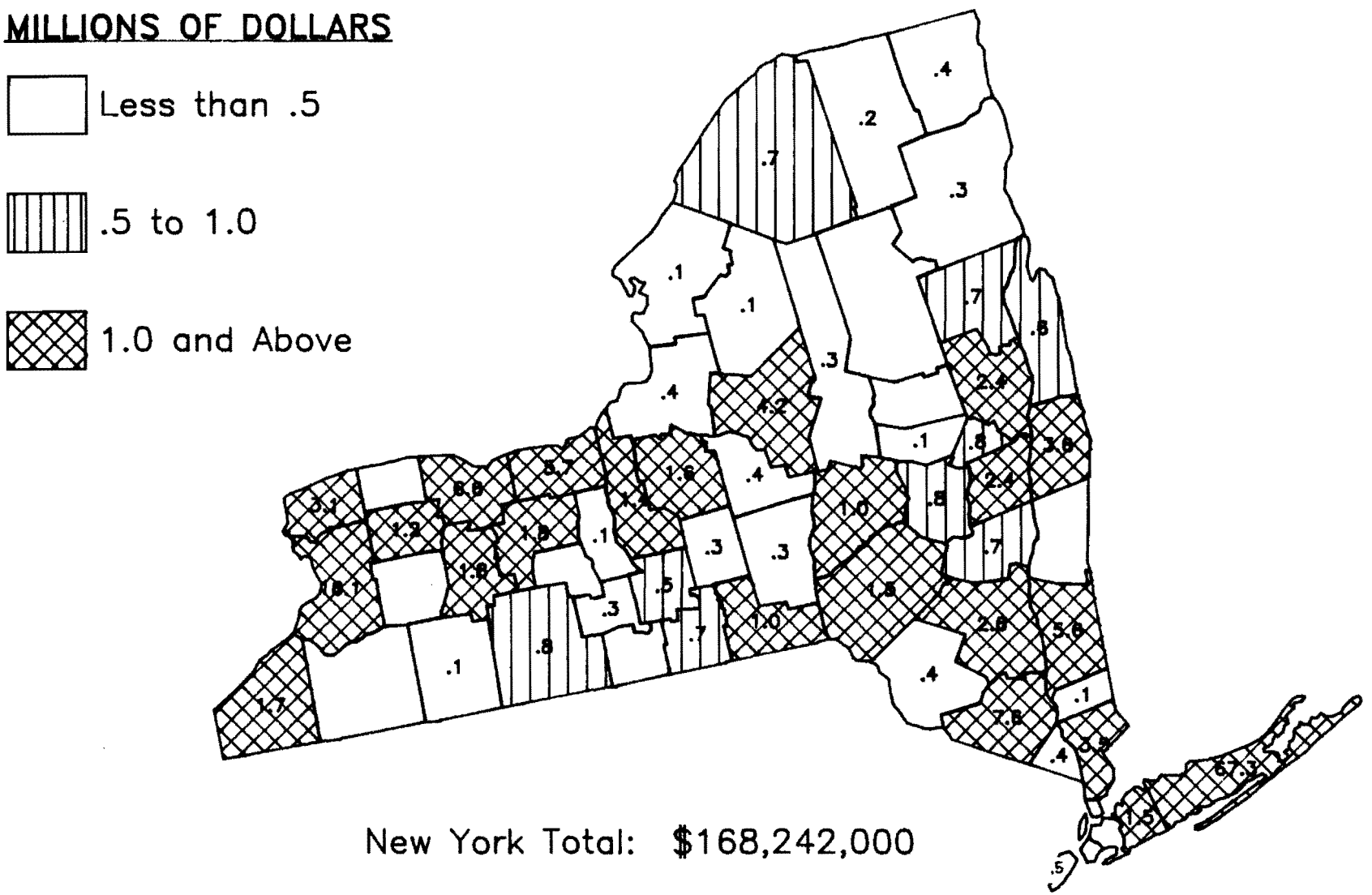
New York Total: 73,195 Acres

Figure 17. Grape Acreage, Thousands, 1987.



New York Total: 36,916 Acres

Figure 18. Nursery and Greenhouse Product Sales, $Millions, 1987.



New York Total: $168,242,000

Figure 19. Number of Milk Cows, Thousands, 1987.

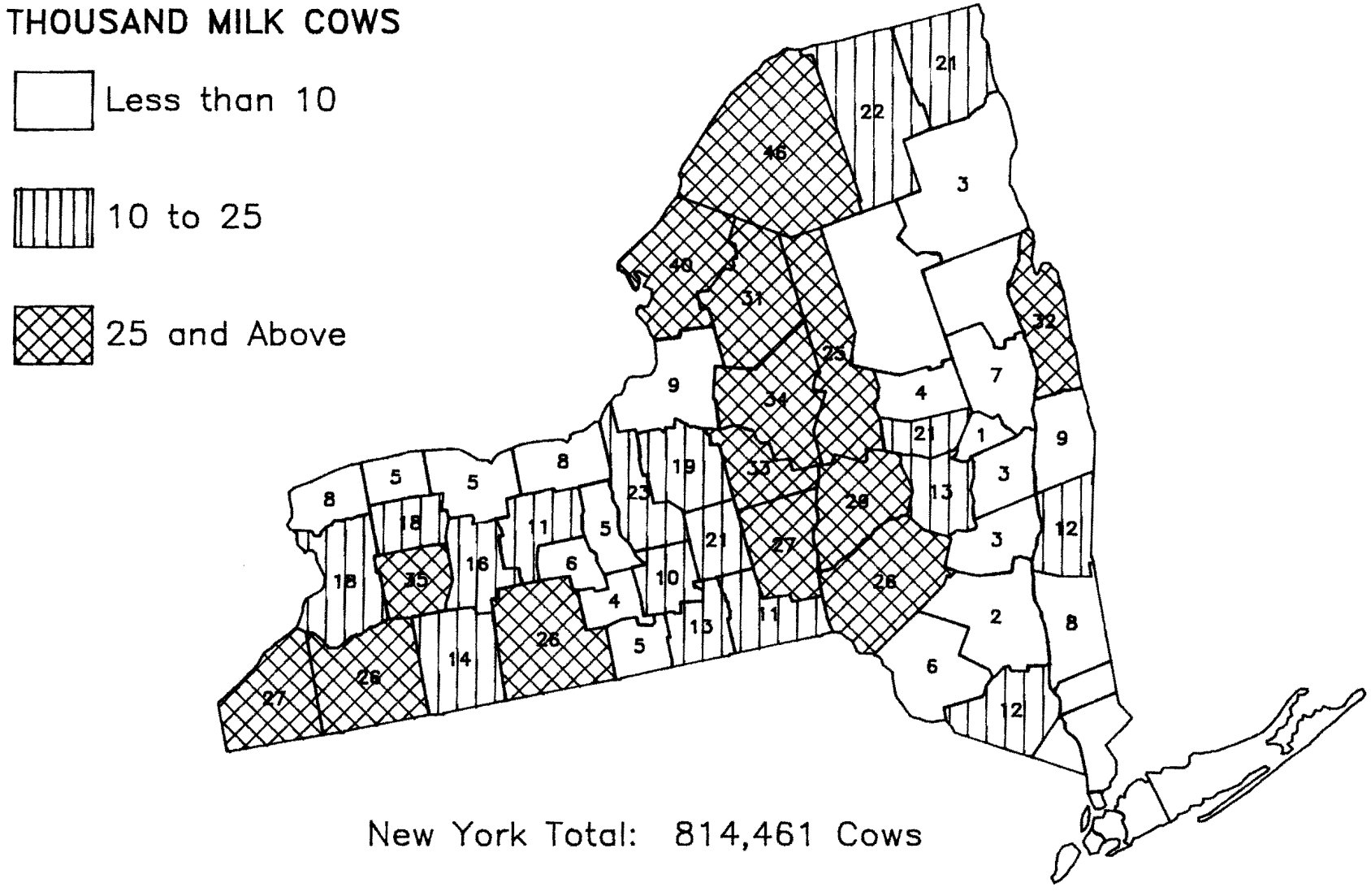
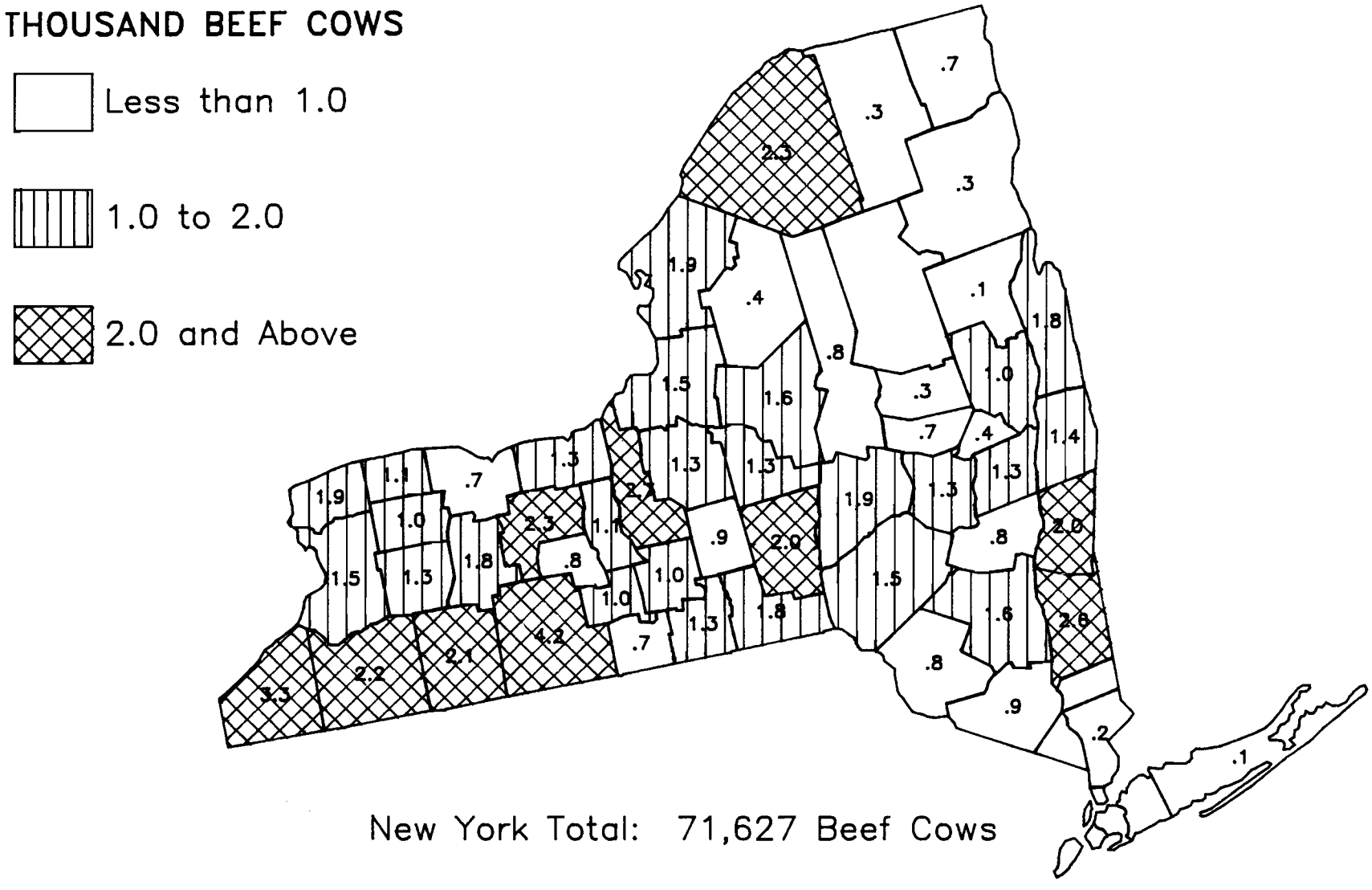


Figure 20. Number of Beef Cows, Thousands, 1987.



New York Total: 71,627 Beef Cows

Figure 21. Hog and Pig Inventory, Thousands, 1987.

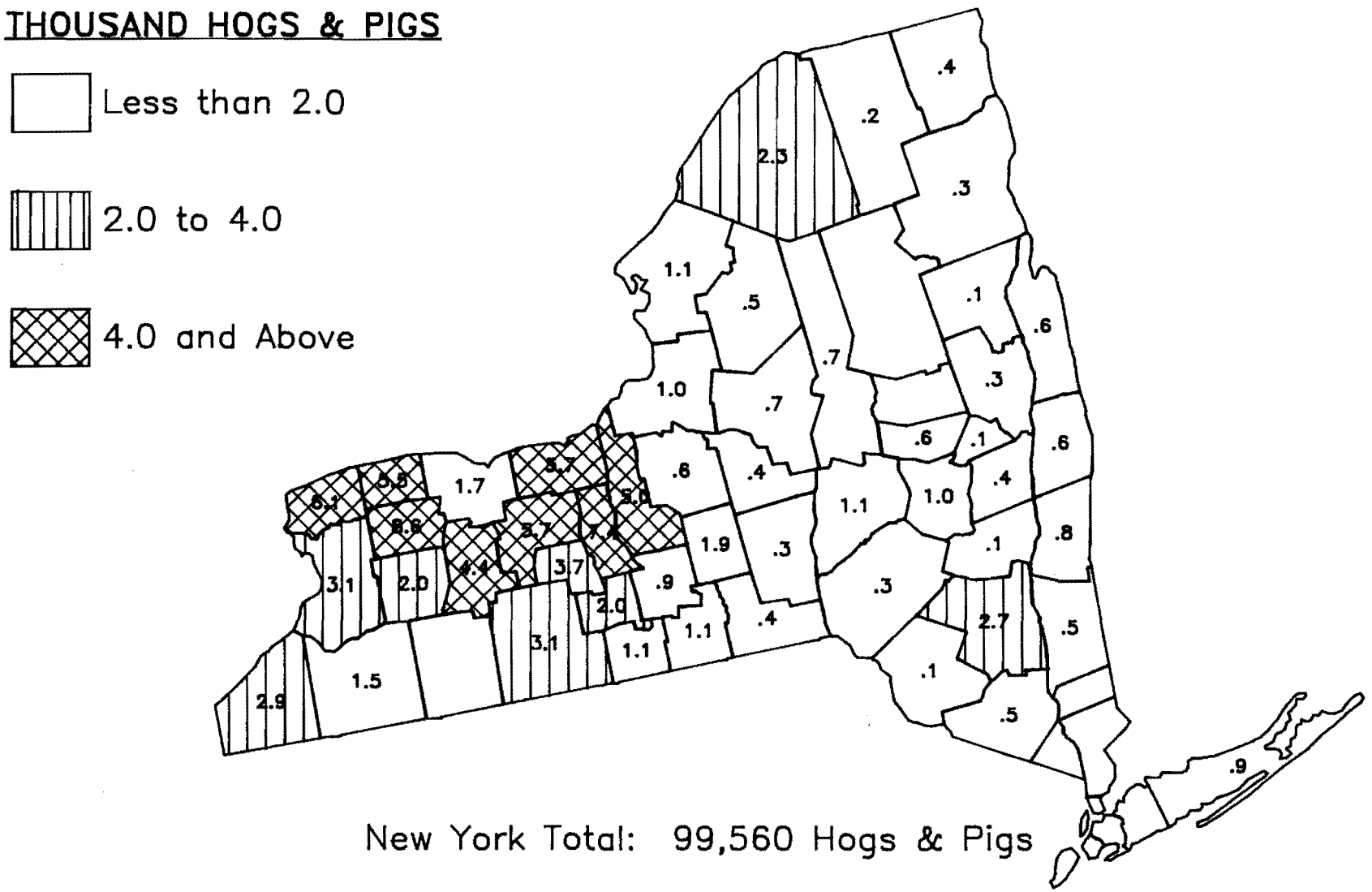


Figure 22. Sheep and Lamb Inventory, Thousands, 1987.

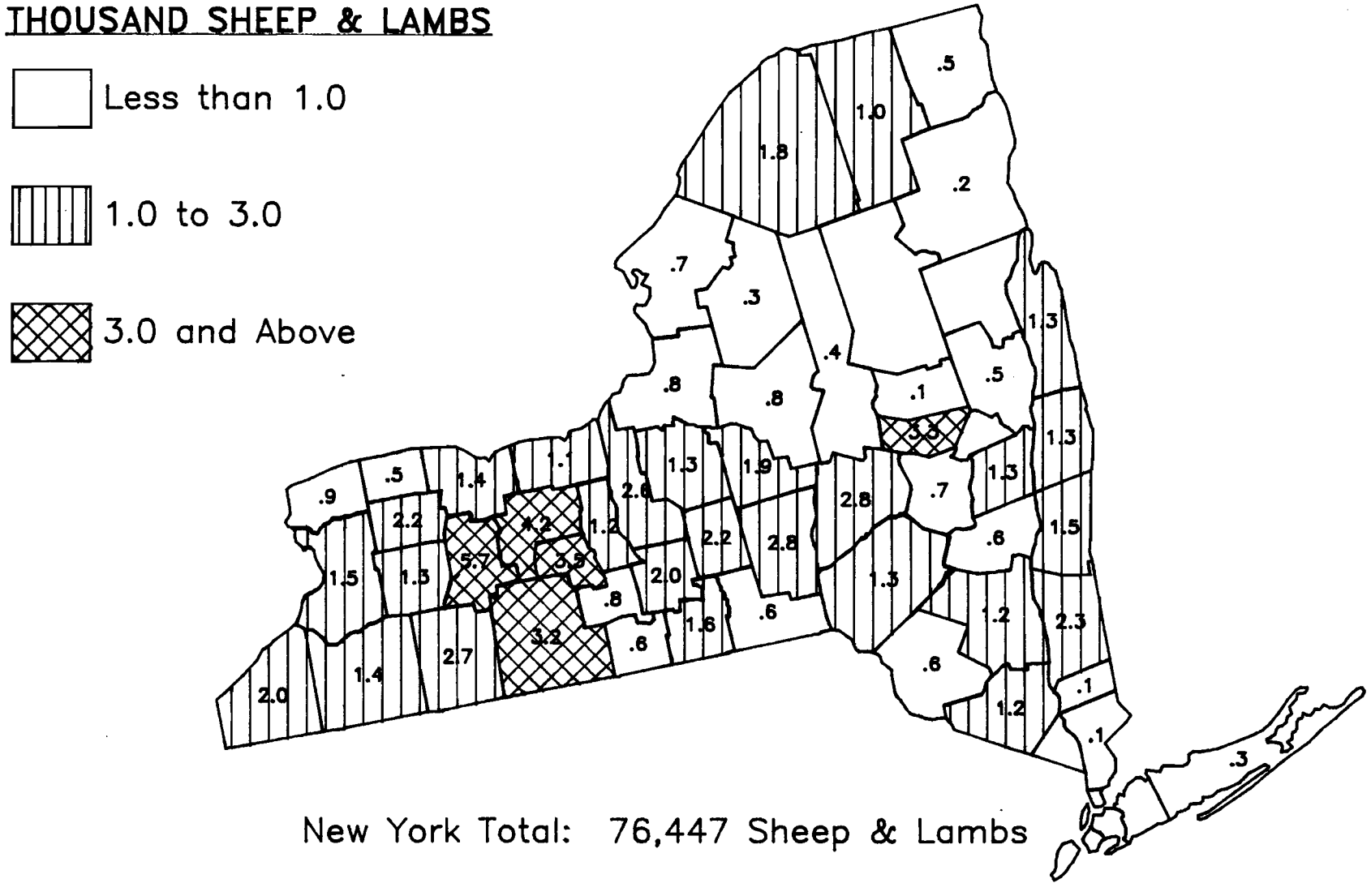


Figure 23. Total Farm Production Expenditures, $Millions, 1987.

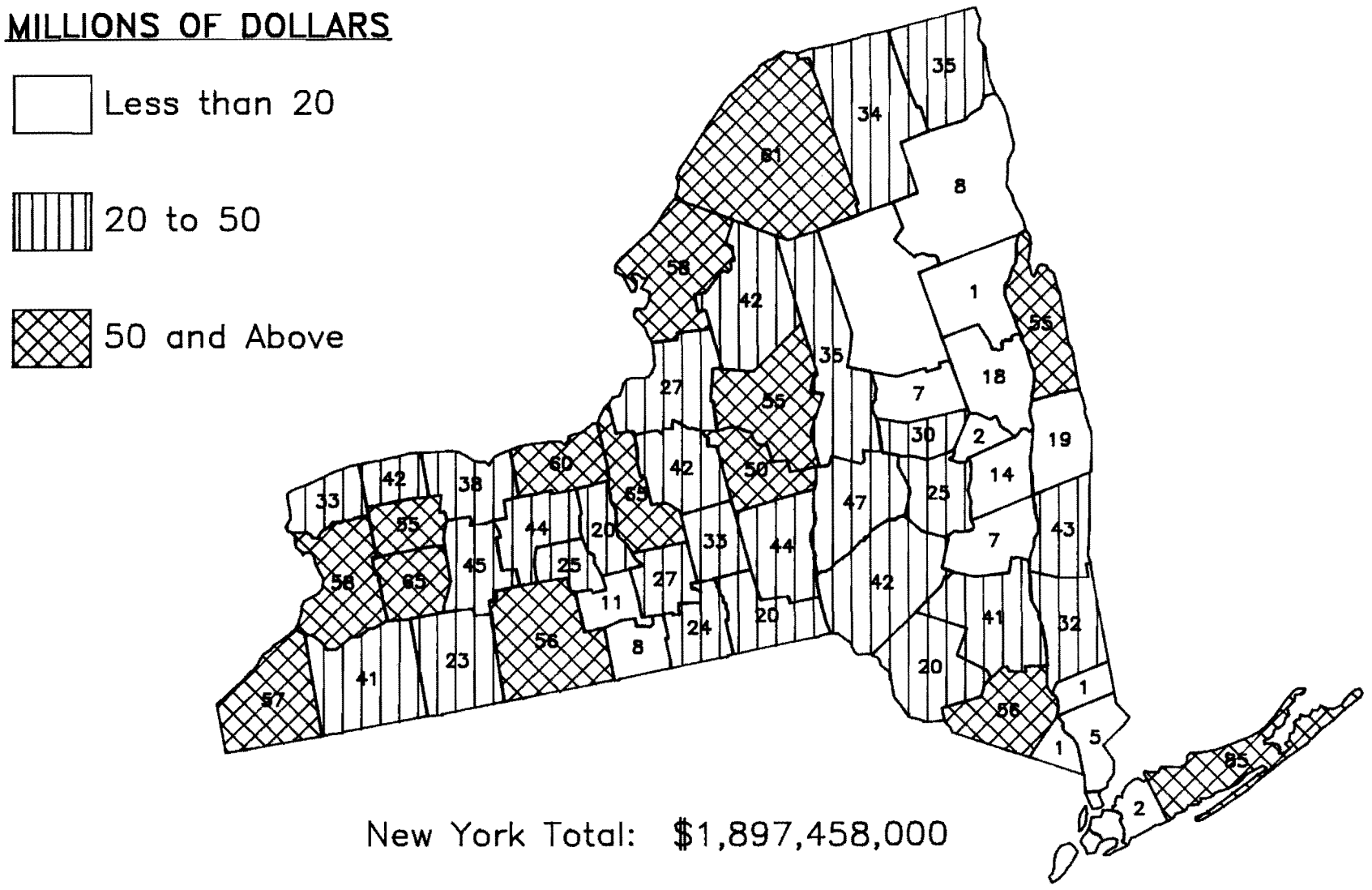


Figure 24. Total Net Cash Return from Agricultural Sales, $Millions, 1987.

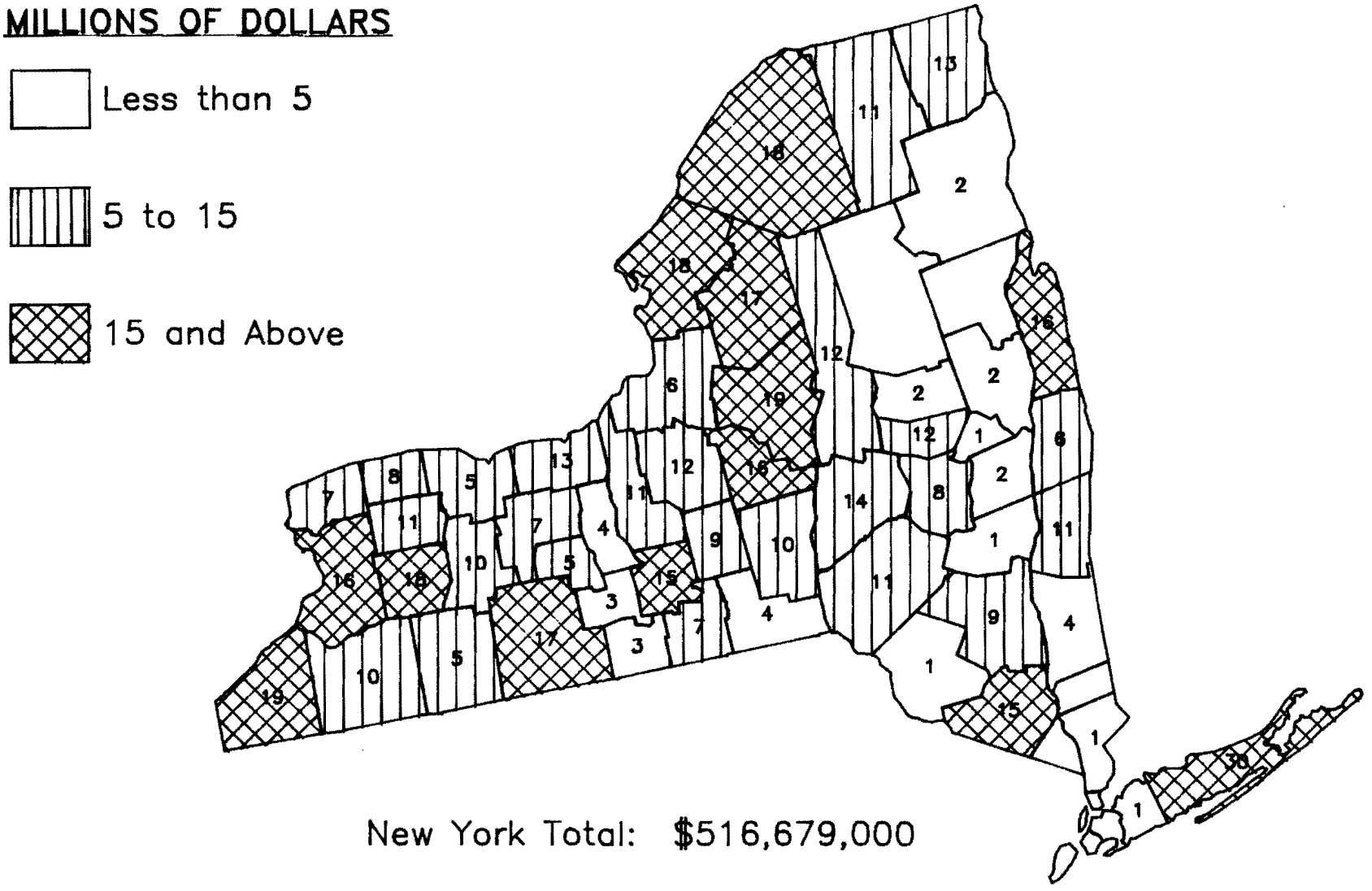
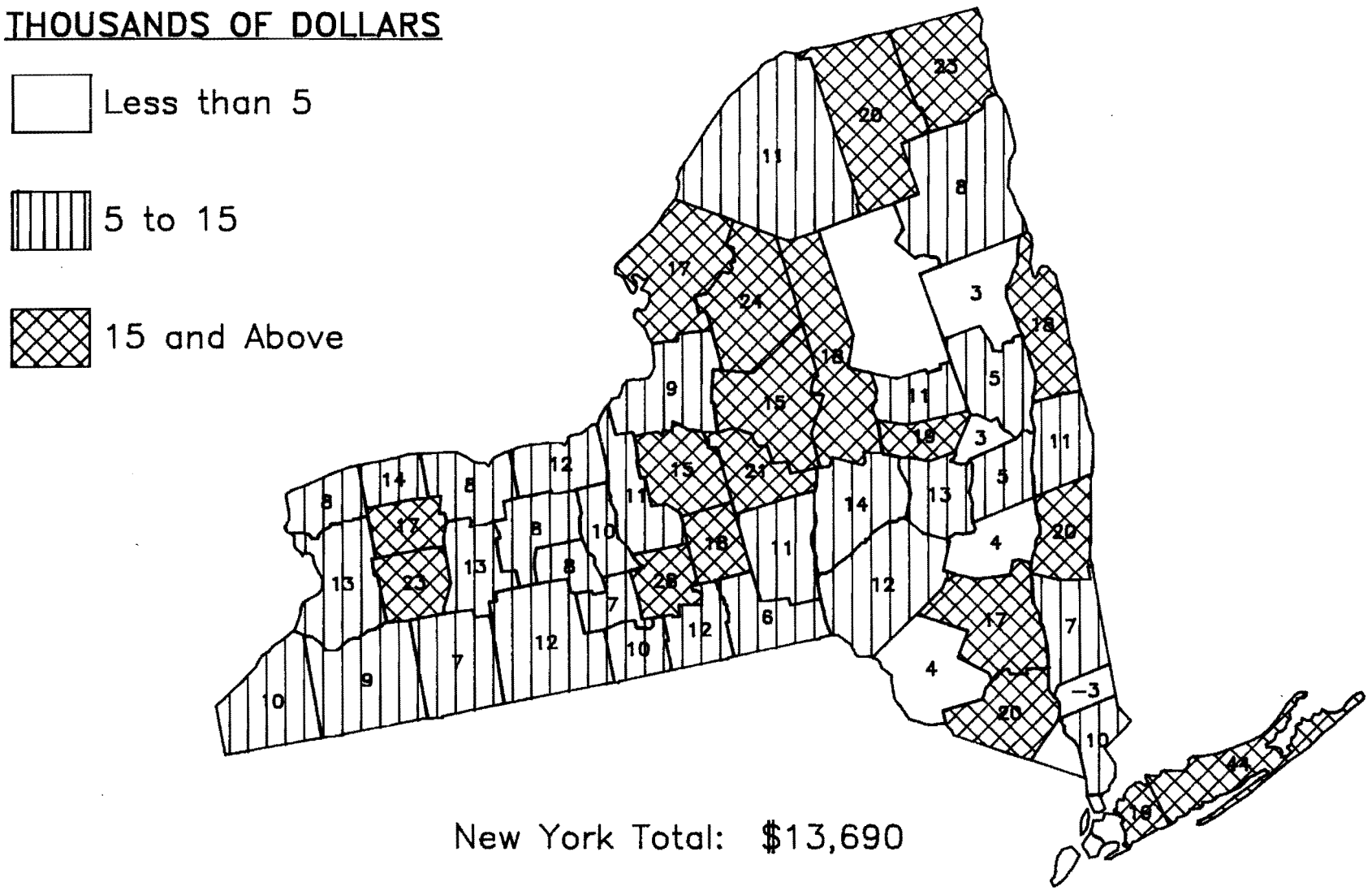


Figure 25. Net Cash Return from Agricultural Sales per Farm, $Thousands, 1987.



Other Agricultural Economics Extension Publications

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No. 89-36	Fruit Farm Business Summary, Lake Ontario Region, 1988	D. P. Snyder A. M. DeMarree
No. 89-37	New York Economic Handbook 1990, Agriculture Situation and Outlook	Extension Staff