

# **2005 DAIRY GOAT and SHEEP SURVEY**



**Conducted by:  
New York State Department of Agriculture & Markets  
Division of Milk Control & Dairy Services  
and the  
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## **INTRODUCTION**

In 2002 the National Census of Agriculture reported a dramatic increase of 68 percent in the number of dairy goats in New York since the 1997 Census. In addition, while counts of dairy sheep were not collected in the National Census, anecdotal observation also indicated an increase in these operations. In January 2005, the New York Agricultural Statistics Service mailed a survey to New York State dairy goat and sheep farm operators to obtain a current and comprehensive view of this industry.

It is hoped that results from this survey, in conjunction with USDA's national surveys will increase awareness of this emerging industry as well as provide basic marketing research for New York dairy goat and sheep producers.

## **DAIRY GOAT**

The latest estimate for the number of farms having one or more dairy goats comes from the 2002 USDA Census of Agriculture. In 2002, USDA reported 1,146 farms in New York having 12,822 milk goats. This represents a doubling of the number of farms and an increase of over 5,000 milk goats from the level in 1997 (*Table 1*).

**Table 1. Number of Farms and Milk Goats in New York, December 31, 1997 and 2002 and January 1, 2006**

	Milk Goats		All Goats	
	<i>Farms</i>	<i>Number</i>	<i>Farms</i>	<i>Number</i>
December 31, 1997 <sup>1</sup> .....	573	7,610	1,646	18,735
December 31, 2002 <sup>1</sup> .....	1,146	12,822	2,473	33,130
January 1, 2006 <sup>2</sup> .....	NR	12,800	NR	33,800

**Source:**

<sup>1</sup> 2002 Census of Agriculture, USDA, National Agricultural Statistics Service, New York State and County Data, Volume 1, Geographic Area Series, Part 32, AC-02-A-32, *Table 32. Other Animals and Animal Products—Inventory and Number Sold: 2002 and 1997.*

<sup>2</sup> New York Agricultural Statistics Service, *New York Crop and Livestock Report*, Released: February 2006, No. 973-2-06.  
NR = Not Reported

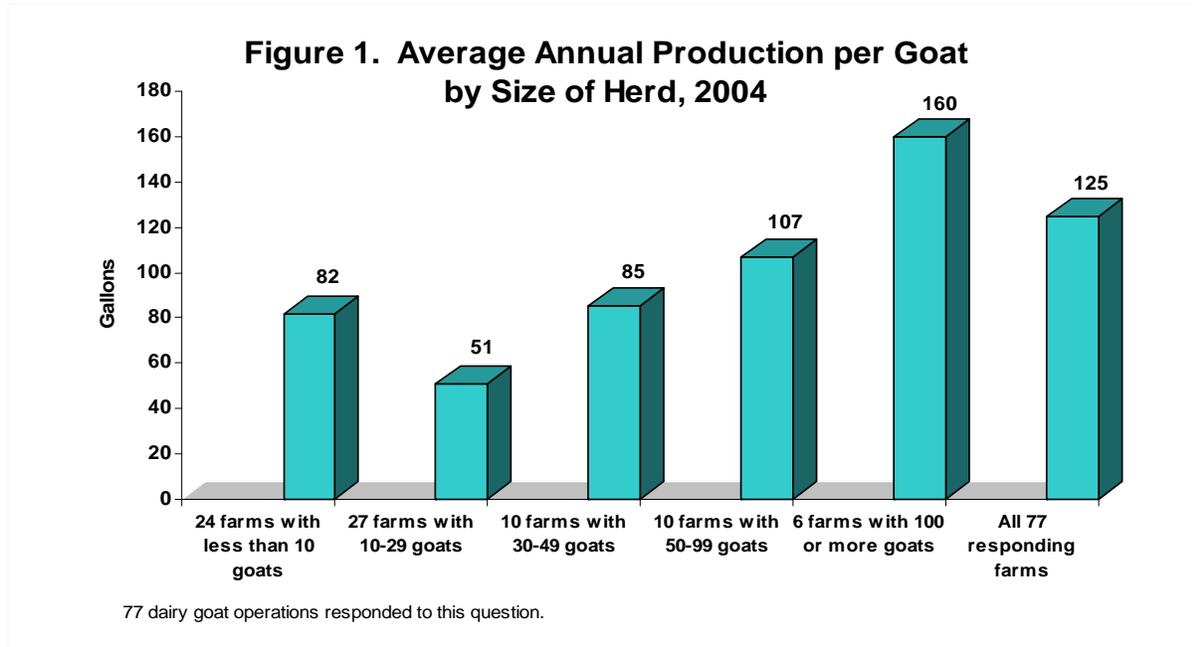
Survey returns were received from 210 dairy goat operations, about 18 percent of New York's total estimated operations, having 7,156 milk goats or 56 percent of the total dairy goat herd. The average size herd in the sample was 34 goats<sup>1</sup>. A distribution of the number of operations and an inventory of herds based on reporting farms in the sample is found in *Table 2*.

**Table 2. Number of Dairy Goats and Operations in Sample**

Size of Herd	Under 10	10-29	30-49	50-99	100+	All Herds
# of goats	305	1,450	1,052	1,572	2,777	7,156
% of goats	4%	20%	15%	22%	39%	100%
# of operations	59	84	29	25	13	210
% of operations	28%	40%	14%	12%	6%	100%
Avg. size herd	5	17	36	63	214	34

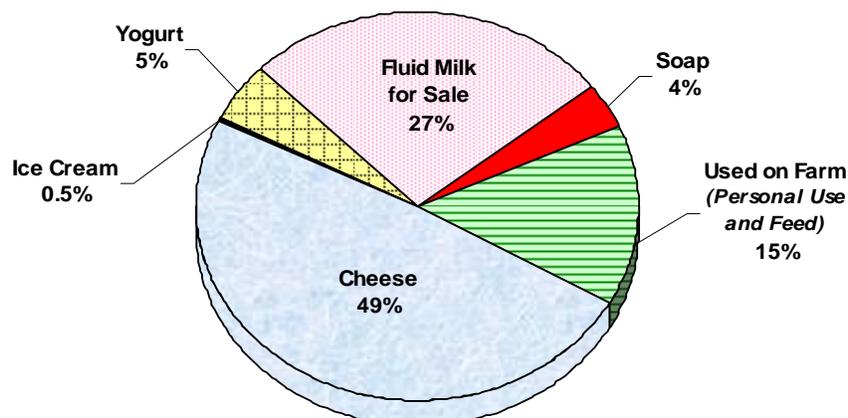
<sup>1</sup> This is considerably higher than the statewide average of 11 found in the 2002 Census. A discussion of the reason for this difference is found in the *Survey Methodology and Analysis* section at the end of this report.

Average annual production per lactating goat was 125 gallons during 2004. Farms with over 100 milk goats averaged 160 gallons per goat, while farms with 10 to 29 goats experienced yields per goat of 51 gallons. However, yields are not always related to farm size. A well managed small herd could produce high yields. Farms with less than ten goats have an annual yield of 82 gallons per goat, nearly the same average as 30-49 goat herds. Anecdotal experience suggests that 4-H goat projects included in the under 10 goat category boost the yields in this group significantly (*Figure 1*).



New York produced goat milk is used principally in the production of cheese and fluid milk. Smaller quantities of goat milk go into yogurt, ice cream and non-food products. Responses from 109 operations reporting 425,450 gallons of goat milk produced in 2004 show that nearly half of the milk goes into cheese production. Fluid milk production, with 27% reported for sale and a substantial amount used on the farm, accounts for the second highest usage (*Figure 2*). No surveyed goat operation reported purchasing out of state goat milk to meet demand for manufactured dairy products during 2004; however, two operations reported purchasing in-state milk to meet demand.

**Figure 2. Disposition of Goats Milk in New York, 2004**



The average operation with dairy goats has been in business for 13 years. Eighty three operations have been in business less than ten years and have on average 26 dairy goats. Ninety three operations were in business ten or more years and have on average 43 dairy goats.

The average acreage for farms that include dairy goats in their operation is 58 acres. This figure, however, is influenced by several large operations; the median acreage being 16.

Returns from 201 operations reported their combined dairy goat herd inventory by age as: goats under 1 year, 28%; 1-4 years, 44%; 4-6 years, 19% and over 6 years, 9% (Table 5).

## **DAIRY SHEEP**

All identified sheep operations in the state were surveyed. Ninety percent of those surveyed responded with 49 operations reporting 2,585 sheep devoted to the production of milk during 2004 (Table 3).

**Table 3. Total Number of Sheep and Lambs in New York, 2002-2006;  
Number of Dairy Sheep, 2004**

	Total New York Sheep and Lambs		Dairy Sheep	
	Farms <sup>1</sup>	Number on Jan 1 <sup>2</sup>	Number in Survey	
			Farms	Sheep
2002	1,600	63,000	49	2,585
2003	1,700	72,000		
2004	1,900	70,000		
2005	2,000	75,000		
2006	NR	70,000		

**Source:**

<sup>1</sup> USDA, NASS, Farms, Land in Farms, and Livestock Operations, Annual Summaries.

<sup>2</sup> USDA, New York Agricultural Statistics, *Monthly New York Crop and Livestock Reports*.

NR= Not Reported

The average herd size in the survey was 53. Farms with herds of 100 or more dairy sheep, while accounting for twelve percent of the operations, reported 61 percent of the dairy sheep. A distribution of the number of operations and an inventory of herds by size of operation is found in Table 4.

**Table 4. Number of Dairy Sheep and Operations in Survey**

Size of Herd	Under 10	10-24	24-49	50-99	100+	All Herds
# of sheep	70	207	403	319	1,586	2,585
% of sheep	3%	8%	16%	12%	61%	100%
# of operations	15	11	12	5	6	49
% of operations	31%	22%	24%	10%	12%	100%
Avg. size herd	5	19	34	64	264	53

The average acreage for operations which include milk sheep is 98 acres. This figure, however, is influenced by several large operations; the median acreage being 55. The average number of years that these operations have milked sheep is just under 12 years.

Six farms milking 1,266 sheep reported an average annual production of 41 gallons per milking sheep. New York produced sheep milk was used principally in the production of cheese and yogurt products with smaller quantities going to fluid milk and non-food products. In order to meet demand for New York manufactured sheep dairy products, a considerable amount of sheep milk is purchased from out of state sources.

The distribution of survey's combined dairy sheep herd by age is found in table 5 below.

**Table 5. Combined Herd Inventories by Age**

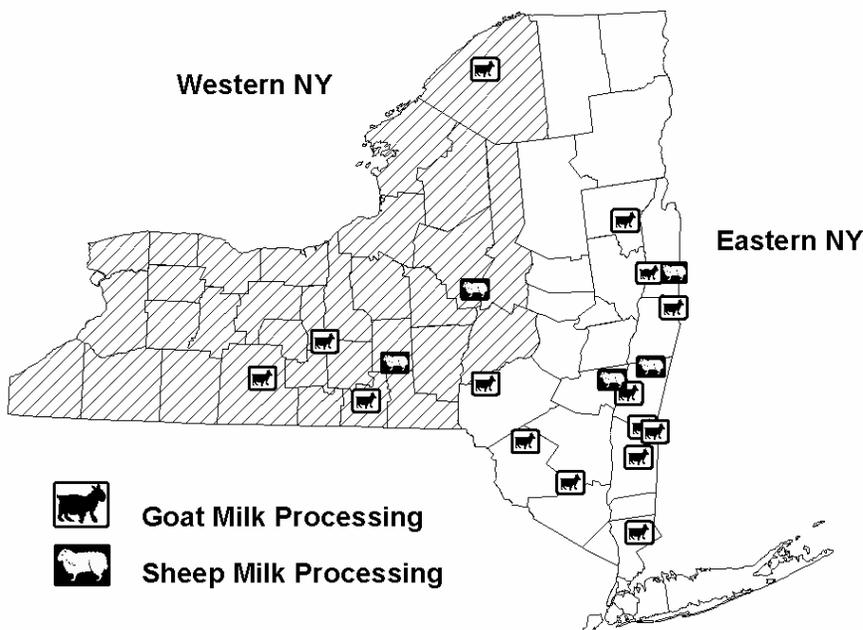
	Milk Goats	Dairy Sheep
	<i>Percent</i>	<i>Percent</i>
Less than 1 year of age .....	28	29
Between 1-4 years of age.....	44	40
Between 4-6 years of age.....	19	18
More than 6 years of age.....	9	13

Based on 201 responding dairy goat operations and 34 responding dairy sheep operations

## REGIONAL SURVEY OF DAIRY GOAT AND SHEEP OPERATIONS

New York State milk goat and dairy sheep processing facilities tend to be in eastern and central New York (*Figure 3*).

**Figure 3. NY Dairy Goat / Sheep Survey Regions**



Source: New York State Department of Agriculture and Markets, Division of Milk Control and Dairy Services' records as of February 2006.

The survey found milking operations in the eastern portion of the state are on average larger than those in the western portion of the state. Fifteen operations in the state are licensed to process goat milk; five are licensed for sheep milk processing (*Tables 6 and 7*).

**Table 6. Dairy Sheep Operations by Region**

	Western New York	Eastern New York
Operations reporting dairy sheep	25	24
Dairy sheep on these operations	1,096	1,489
Average number of dairy sheep per operation	44	62
Average number of acres for operations having dairy sheep	81	114
Average number of years that dairy sheep operations have been functioning	10	13
Number of sheep milk processing facilities *	2	3

**Table 7. Milk Goat Operations by Region**

	Western New York	Eastern New York
Operations reporting milk goats	28	82
Milk goats on these operations	3,520	3,636
Average number of milk goats per operation	28	44
Average number of acres for operations having milk goats	55	62
Average number of years that milk goat operations have been functioning	13	13
Number of goat milk processing facilities *	4	11

\* Based on NYS Department of Agriculture and Markets, Division of Milk Control and Dairy Services' records as of February 2006.

## **COMMENTS OF DAIRY GOAT AND SHEEP FARM OPERATORS**

According to producers, food safety regulations are the major factor limiting the sales of dairy products. Other regulatory aspects of the industry were also mentioned under the 'Other' category. 'Other' also includes various aspects of distribution such as distance from a processing facility and high costs of production (*Table 8*).

Magazines and journals were mentioned as the most frequently used source for dairy production information. Several respondents identified industry organizations like the American Dairy Goat Association in 'Other' as the source most used (*Table 9*).

Table 8. What is the most limiting factor to selling your dairy products?		Table 9. What source for information regarding dairy production do you use most?	
Food Safety Regulations	53%	NYS Dept of Agriculture	16%
Financing	7%	County Extension Agent	17%
Waste Disposal	1%	USDA	3%
Marketing	18%	Magazine/Journal	34%
Other	21%	Internet Search	12%
		Other	18%
Number of Respondents	188	Number of Respondents	185

## **SURVEY METHODOLOGY AND ANALYSIS**

The New York Dairy Goat and Sheep Survey was mailed in January 2005 to 2,376 farms. Of these farms 678 were identified as New York milk goat operations by the National Agricultural Statistics Service (NASS). Unlike dairy goat operations, NASS does not maintain a separate indicator for dairy sheep operations, therefore, a survey was mailed to all 1,919 New York sheep operations. There were 221 operations on both milk goat and sheep list frames (*Table 10*). Follow-up phone calls were made to non-respondents in February 2005.

**Table 10. Survey Mailing and Response Rates**

	Number Mailed to	Number of Respondents	Response Rate	Number Identified as Dairy Operations
List Frame for Dairy Goats	678	597	88%	210
List Frame for all Sheep	1,919	1,735	90%	49
On Both List Frames	221		Included Above	
Total	2,376			

The finding of this survey should not be used to extrapolate statewide estimates for total goat/sheep milk production. When NASS reports statewide totals, it uses combined area frame and list frame sampling, non-response analysis, weighting and imputation of missing data to estimate target populations. An operation is defined as any place having one or more head of livestock.

Response rates to the survey were 597 (88 percent) for the 678 dairy goat operations. 210 of these operations indicated that they had milked goats in 2004. Responses from the 1,919 mailings to sheep operations were 1,735 (90 percent) of which 49 operations were identified as having sheep which were devoted to the production of milk in 2004 (*Table 10*).

# Appendix – Survey Form



STATE OF NEW YORK  
DEPARTMENT OF AGRICULTURE AND MARKETS  
108 Airline Drive, Albany, New York 12235  
518-457-8878 Fax 518-457-3087  
www.agmkt.state.ny.us

## New York Dairy Goat/Sheep Survey

Dear Producer:

The New York Agricultural Statistics Service needs your help with the 2004 Dairy Goat/Sheep Survey. This study is being done in cooperation with the New York Department of Agriculture and Markets to provide accurate, unbiased statistics of the industry. This report is voluntary and not required by law. Your individual report will remain strictly confidential and only be used in summary with similar reports from across the State.

Please make corrections to name, address and Zip Code, if necessary.

This survey is being conducted in conjunction with the United States Department of Agriculture January Sheep Report. Results of this survey will complement results of the national survey and will aid in providing marketing assistance for New York dairy goat and sheep producers. Some producers may be asked to participate in both surveys. The New York Agricultural Statistics Service and the New York Department of Agriculture and Markets thank you for your additional time given.

*Stephen C. Ropel*  
Stephen C. Ropel  
Director

During 2004, did you have any goats or sheep devoted to the production of milk?

- a. Yes - Continue
- b. No - Skip to Question 13 - enter 3

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### Operation Characteristics

- 1. How many total acres of land are in this operation now? ..... Acres
- 2. How many years has this operation been focused on dairy production? ..... Years

010
011

### Production

- 3. What was the peak number of goats/sheep on this farm during 2004?
  - a. Goats .....
  - b. Sheep .....
- 4. How much goat/sheep milk was produced on this farm during 2004? .....

	Goats	Sheep
Number	101	
Number		102
Gallons	103	104

OR

- How much goat/sheep milk was produced during a typical month? .....
- 5. Length of lactation per ewe/doe .....

Gallons	105	106
Months	107	108

### Milk Disposition

- 6. During 2004, how much goat/sheep milk was used to produce the following:
  - a. Manufactured dairy product
    - 1. Cheese .....
    - 2. Ice Cream .....
    - 3. Yogurt .....
  - b. Fluid milk for sale .....
  - c. Non-food use
    - 1. Soap .....
    - 2. Other (Specify) \_\_\_\_\_ .....

	Goats	Sheep
Gallons	201	202
Gallons	203	204
Gallons	205	206
Gallons	207	208
Gallons	209	210
Gallons	211	212

7. Goat or sheep milk purchased in-state in order to meet demand for manufactured dairy product during 2004. .... Gallons 

213	214
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8. Goat or sheep milk purchased out-of-state in order to meet demand for manufactured dairy product during 2004. .... Gallons 

215	216
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**Herd Inventory**

9. Of the total dairy goats/sheep on this farm, how many are
- |                                  | <b>Goats</b> | <b>Sheep</b> |
|----------------------------------|--------------|--------------|
| a. Less than 1 years of age?     | 301          | 302          |
| b. Between 1 and 4 years of age? | 303          | 304          |
| c. Between 4 and 6 years of age? | 305          | 306          |
| b. More than 6 years of age?     | 307          | 308          |

10. What breed, if any, makes up more than 50% of your milking herd (Check one)
- |                                                       |                                                       | <b>Office Use</b> |              |  |
|-------------------------------------------------------|-------------------------------------------------------|-------------------|--------------|--|
| <b>Goats</b>                                          | <b>Sheep</b>                                          | <b>Goats</b>      | <b>Sheep</b> |  |
| <input type="checkbox"/> a. Nubian (1)                | <input type="checkbox"/> a. Friesian (1)              | 401               | 402          |  |
| <input type="checkbox"/> b. Saanen (2)                | <input type="checkbox"/> b. Dorset (2)                |                   |              |  |
| <input type="checkbox"/> c. Alpine (3)                | <input type="checkbox"/> c. Other (3) (Specify) _____ |                   |              |  |
| <input type="checkbox"/> d. None (4)                  | <input type="checkbox"/> d. None (4)                  |                   |              |  |
| <input type="checkbox"/> e. Other (5) (Specify) _____ |                                                       |                   |              |  |

11. What do you consider the most limiting factor to selling your dairy products? (Check one)
- |                                                         |                   |
|---------------------------------------------------------|-------------------|
| <input type="checkbox"/> a. Food Safety Regulations (1) | Office Use<br>501 |
| <input type="checkbox"/> b. Financing (2)               |                   |
| <input type="checkbox"/> c. Waste Disposal (3)          |                   |
| <input type="checkbox"/> d. Marketing (4)               |                   |
| <input type="checkbox"/> e. Other (5) (Specify) _____   |                   |

12. What source of information regarding dairy production do you most often use? (Check one)
- |                                                                                      |                   |
|--------------------------------------------------------------------------------------|-------------------|
| <input type="checkbox"/> a. New York State Department of Agriculture and Markets (1) | Office Use<br>601 |
| <input type="checkbox"/> b. County Extension Agent (2)                               |                   |
| <input type="checkbox"/> c. USDA (3)                                                 |                   |
| <input type="checkbox"/> d. Magazine/Journal (4)                                     |                   |
| <input type="checkbox"/> e. Internet Search (5)                                      |                   |
| <input type="checkbox"/> f. Other (6) (Specify) _____                                |                   |

13. Would you like to receive a free copy of the results of this survey in the mail?
- |                                    |                   |
|------------------------------------|-------------------|
| <input type="checkbox"/> Yes - (1) | Office Use<br>099 |
| <input type="checkbox"/> No - (3)  |                   |

Reported by \_\_\_\_\_ Phone ( ) \_\_\_\_\_

**This completes the survey. Thank you for your help**