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Goat 2009

Part I: Reference of Goat Management Practices in the United States, 2009



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Items of Note

The Goat 2009 study marks the first time that the National Animal Health Monitoring System has taken an in-depth look at the U.S. goat industry. In this report, you will find the first nationally representative information on the animal health and management practices of one of the Nation's fastest growing livestock industries.

Population estimates and operator experience

Goats are one of the oldest domesticated livestock and are often characterized by their ability to produce fiber, milk, or meat. However, goats are also raised or kept for a wider range of uses, such as brush control, shows, packing, and as lively companions. In fact, nearly one-half of operations with fewer than 10 goats (41.2 percent) indicated that they kept goats for pets or companions. For operations with 10 or more goats, the large majority raised goats for meat, with lesser percentages raising goats for milk and fiber. Just over 70 percent of all goats and kids in the United States are raised for meat.

The rise in the popularity and production of meat goats is the primary reason for the industry's rapid growth. This growth has brought many relatively new producers to the industry. For example, only 10.7 percent of meat goat producers have been in the goat industry for 21 or more years, compared with 37.1 percent of fiber goat producers and 20.1 percent of dairy goat producers. Conversely, 35.0 percent of meat goat producers have raised goats for less than 6 years, compared with 15.4 and 22.9 percent of fiber and dairy goat producers, respectively.

Reproduction

Unless goats are kept as pets or companions—and not as a source of income—breeding practices and reproductive outcomes should be central to managing a goat herd. The reproductive performance of a goat herd can be improved by intensive management practices such as flushing does, performing breeding soundness exams on bucks, genetic selection, light regulation, ultrasounds, and the use of genetic information, such as expected progeny difference. One of the easiest practices to implement is flushing, which provides does with extra nutrition prior to, and sometimes during, the breeding season. This practice increases the number of ovulations, resulting in a high proportion of twins and triplets. Flushing was the only reproductive practice implemented by more than 1 of 10 operations.

Milk production

While the demand for goat milk has not risen as fast as the demand for goat meat, there has still been a steady expansion in milk goats and goat-milk production. In 2002, there were 290,789 milk goats in the United States (NASS 2002 Census) compared with 334,754 in 2007 (NASS 2007 Census). While 10.0 percent of goat operations in the United States with more than 10 goats indicated their primary production focus was dairy, 13.5 percent of all goat operations reported milking goats. Almost two-thirds of operations that milked does (65.7 percent) did so twice a day and slightly more than one-fourth (27.5 percent) milked once a day. Milk or milk products that were sold or traded were used for a variety of purposes. For example, 48.8 percent of operations sold or traded milk for pet consumption, 41.8 percent for human consumption, and 38.9 percent for livestock consumption.

Fiber production

In the United States, goats usually produce two types of fiber, cashmere and mohair. Of the two, mohair production in the United States is a much older and larger industry than cashmere. The majority of fiber goats (91.9 percent) are mohair-producing Angora goats, which reside on approximately two-thirds of fiber-producing operations. While the number of Angora goats declined from 300,753 goats in 2002 to 204,106 goats in 2007, the number of Angora goat operations increased from 5,075 to 7,215 during the same period (NASS 2002 and 2007 Census of Agriculture). More than one-half of the fiber produced in the 12 months prior to the study (55.8 percent) was sold to commercial warehouses, and about one-fifth (22.3 percent) was sold or traded to cooperative pools. However, the highest percentage of operations (54.8 percent) sold or traded at least some fiber to private, local individuals.

Selected Highlights for Part I: Reference of Goat Management Practices in the United States, 2009

While 47.1 percent of all operations raised goats primarily for meat, only 21.8 percent of very small operations (fewer than 10 goats) raised goats primarily for meat, and nearly twice the percentage of very small operations (41.2 percent) raised goats primarily as pets or companions.

For operations with 10 or more goats, meat was the primary production focus for 65.0 percent of the operations.

The three most important sources of goat health information were other goat producers; veterinarian, nutritionist, or other paid consultant; and the Internet (33.3, 29.7, and 26.8 percent of operations, respectively).

Three of four operations (74.5 percent) did not consider goat industry association meetings an important source of health information.

Few goat operations belonged to a national or a State/local goat association or club (16.9 and 13.1 percent of operations, respectively). Large operations were more likely to belong to a national or a State/local goat organization or club than very small or small operations.

The majority of goat operations kept noncomputerized records (52.6 percent). Overall, a higher percentage of large operations than small or medium operations kept records. Almost three of four large operations (73.8 percent) kept some type of records.

About 9 of 10 operations with 10 or more goats (87.9 percent) produced kids between July 1, 2008, and June 30, 2009.

Nearly one-fourth of dairy operations (22.8 percent) heat treated colostrum before feeding to kids compared with 9.4 percent of meat operations and 4.5 percent of fiber operations.

The majority of operations that milked does (83.1 percent) did so by hand. However, the majority of does milked (55.2 percent) were milked in a parlor.

Nearly three-fourths of operations that milked any does in the previous 12 months (74.4 percent) fed doe milk to goat kids, while 66.9 percent of operations kept some milk for home consumption.

Acknowledgments

This report was a cooperative effort between two U.S. Department of Agriculture (USDA) Agencies: the National Agricultural Statistics Service (NASS) and the Animal and Plant Health Inspection Service (APHIS).

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- University of Georgia College of Veterinary Medicine, Department of Infectious Diseases
- Centers for Disease Control and Prevention, National Center for Zoonotic and Vector-borne Enteric Diseases (NCZVED), Division of Viral and Rickettsial Diseases (DVRD)
- Veterinary Services, National Animal Health Program John's staff

All participants are to be commended, particularly the producers whose voluntary efforts made the Goat 2009 study possible.



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Feedback

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Introduction

The National Animal Health Monitoring System (NAHMS) is an information gathering and disseminating organization within the Animal and Plant Health Inspection Service (APHIS), an agency of the U.S. Department of Agriculture (USDA). The purpose of the NAHMS program is to collect and analyze animal health data to provide scientifically sound and current information on the health status of U.S. livestock and poultry. The information is intended to benefit both livestock producers (by facilitating efficient production and animal welfare) and the general public (by facilitating a safer and higher quality food supply). Special emphasis is placed on obtaining valid estimates of management practices, production levels, and disease status of the national herd.

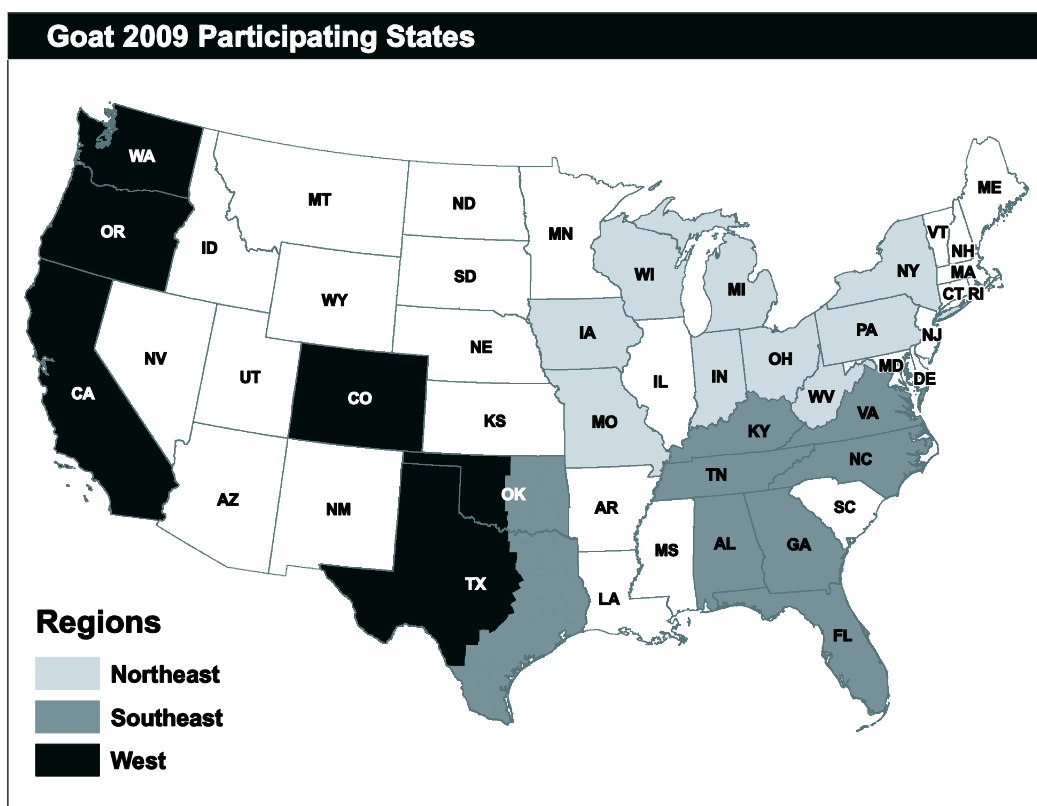
NAHMS studies animal health as well as food-safety and food-quality issues. As the goat food and fiber industry grows more sophisticated and production becomes more concentrated in large, confined facilities, demand increases for information on the impact of animal health. Animal health is often related to genetics, herd management practices, the environment in which the herd is located, and exposure to infectious agents. The NAHMS program attempts to measure the occurrence of these conditions and reports the findings to the livestock industry and the general public. Additionally, as the livestock industry addresses concerns with food quality and food safety, it needs valid information on which to base decisions.

The NAHMS program compiles some of its information from sources other than surveys of producers. These sources include other government agencies, livestock industry organizations, and universities. Surveys of livestock producers are conducted to assemble data not available elsewhere.

NAHMS was started in 1983. At first, animal health and economic data were collected for various types of livestock through several State programs. Since 1989, surveys have been national in scope and have focused on hogs from farrowing to market, dairy cattle, cow-calf operations, cattle-on-feed operations, equids, catfish, poultry, and sheep. National Agricultural Statistics Service (NASS) State offices and National Association of State Departments of Agriculture (NASDA) field enumerators were involved in most of these studies.

Goat 2009 is NAHMS first study of the U.S. goat industry and was conducted in 21 of the Nation's major goat-producing States (see map). The study provides participants, stakeholders, and the industry as a whole with valuable information representing 75.5 percent of U.S. goat operations and 82.2 percent of U.S. goats (NASS 2007 Census of Agriculture). Part 1: Reference of Goat Management Practices in the United States, 2009 is the first report containing national information from the NAHMS Goat 2009 study. This report contains information collected from 2,484 goat operations. Operations with

fewer than 10 goats (649 operations) answered a shorter version of the questionnaire by telephone. Operations with 10 or more goats (1,835 operations) were personally interviewed by NASS enumerators to complete the full version of the questionnaire. Some tables in this report reflect only the responses of larger operations. These tables will be denoted by a footnote.



Note: Texas and Oklahoma were divided on a line corresponding to north-south Interstate 35. The western halves of the States were included in the West region, and the eastern halves were included in the Southeast region. For more detailed information regarding the counties involved, see Appendix II.

The methods used and number of respondents in the study can be found in Section II and Appendix I of this report, respectively.

Study Objectives and Related Outputs

1. Provide a baseline description of animal health, nutrition, and management practices in the U.S. goat industry

- **Part I: Reference of Goat Management Practices in the United States, 2009, December 2010**

- Part II: Reference of Goat Health and Marketing Practices in the United States, 2009, expected February 2010

- Part III: Reference of Goat Biosecurity and Disease Practices in the United States, 2009, expected winter 2011

- Small-scale Farming: U.S. Goat Operations, expected fall 2010

- Biosecurity on U.S. Goat Operations, information sheet, expected winter 2011

- Goat Disease and Death, information sheet, expected winter 2011

2. Determine producer awareness of VS program diseases

- Part II: Reference of Goat Health and Marketing Practices in the United States, 2009, expected February 2010

- Producer Knowledge of Production-limiting Diseases on Goat Operations, information sheet, expected winter 2011

- Part III: Reference of Goat Biosecurity and Disease Practices in the United States, expected winter 2011

- Identification Practices on U.S. Goat Operations, information sheet, expected winter 2011

3. Describe producer-reported occurrence of infectious diseases (including brucellosis, scrapie, caprine arthritis encephalitis, Johne's disease, and caseous lymphadenitis) and the management and biosecurity practices important for controlling them

- Part II: Reference of Goat Health and Marketing Practices in the United States, 2009, expected February 2010

- Part III: Reference of Goat Biosecurity and Disease Practices in the United States, expected winter 2011

- Biosecurity on Goat Operations, information sheet, expected winter 2011

4. Describe practices important for controlling internal parasites and reducing anthelmintic resistance

- Part II: Reference of Goat Health and Marketing Practices in the United States, 2009, expected February 2010

- Part III: Reference of Goat Biosecurity and Disease Practices in the United States, expected winter 2011

- Parasites and Anthelmintic Resistance on U.S. Goat Operations, information sheet, expected spring 2011

5. Determine producer awareness of sore mouth (contagious ecthyma) and practices to prevent its transmission

- **Part I: Reference of Goat Management Practices in the United States, 2009, December 2010**

- Part II: Reference of Goat Health and Marketing Practices in the United States, 2009, expected February 2010

- Part III: Reference of Goat Biosecurity and Disease Practices in the United States, expected winter 2011

- Sore Mouth (contagious ecthyma, orf) and its Impact on U.S. Goat Operations, information sheet, expected spring 2011

Terms Used in This Report

Expected progeny difference (EPD): The measurement used to determine the genetic value of an animal based on predicted genetically improved offspring. Performance records determine the measurement and are based on complex analysis of a variety of traits, including birth, growth, maternal, and carcass traits, and can be compared between animals of the same breed.

Flushing: Temporary but purposeful elevation in nutritional status around breeding time. Ewes are fed extra energy rations prior to the breeding season to improve ovulations, conception, and embryo implantation rate and ultimately increase the kid crop ratio.

Goat: Goat 1 year or older.

Herd size: Herd sizes are based on the number of goats or kids for each operation on the NASS list sampling frame at the time of sample selection. Size breakouts are: very small (fewer than 10 goats); small (10–19); medium (20–99); large (100 or more).

Herd type:

Open range—any unfenced acreage, even a few acres surrounded by residential areas

Fenced range—any fenced area not specifically cultivated to raise forage or browse

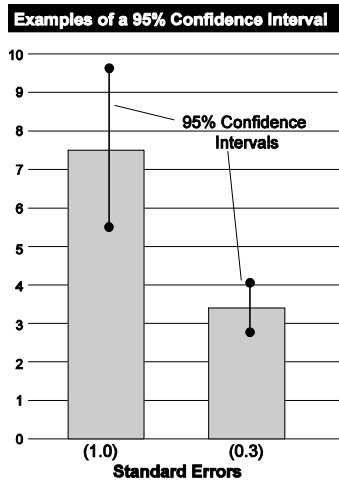
Fenced farm—any fenced area specifically cultivated to raise forage or browse

Dry lot—pen that does not allow grazing and is not meant for finishing goats on a high-energy diet for slaughter.

Kid: Goat less than 1 year old.

Operation average: A single value for each operation summed over all operations reporting and divided by number of operations reporting.

Population estimates: The estimates in this report make inference to all operations in the target population (see Section II: Methodology, p 103). Data from the operations responding to the survey are weighted to reflect their probability of selection during sampling and to account for any survey nonresponse.



Precision of estimates: Estimates in this report are provided with a measure of precision called the standard error. A 95-percent confidence interval can be created with bounds equal to the estimate, plus or minus two standard errors. If the only error is sampling error, the confidence intervals created in this manner will contain the true population mean 95 out of 100 times. In the example to the left, an estimate of 7.5 with a standard error of 1.0 results in limits of 5.5 to 9.5 (two times the standard error above and below the estimate). The second estimate of 3.4 shows a standard error of 0.3 and results in limits of 2.8 and 4.0. Alternatively, the 90-percent confidence interval would be created by multiplying the standard error by 1.65 instead of 2. Most estimates in this report are rounded to the nearest tenth. If rounded to 0, the standard error was reported (0.0). If there were no reports of the event, no standard error was reported (--).

Primary production (of operation): Meat, dairy, fiber, other. An operation might have goats to produce both meat and fiber. If multiple categories applied, producers were asked to select the primary production focus of the operation.

Primary use (of goats): Fiber, milk, meat, other (including brush control/forage management, showing, competition, 4-H or club, pet/companion goats, pack goats, other). Based on primary use of individual goats regardless of breed.

Regions*:

West: California, Colorado, Oklahoma, Oregon, Texas, Washington

Southeast: Alabama, Florida, Georgia, Kentucky, North Carolina, Tennessee, Virginia

Northeast: Indiana, Iowa, Michigan, Missouri, New York, Ohio, Pennsylvania, Wisconsin

*Texas and Oklahoma were divided on a line corresponding to north-south Interstate 35. The western halves of the States were included in the West region, and the eastern halves were included in the Southeast region. For more detailed information regarding the counties involved, see Appendix II.

Section I: Population Estimates

A. Inventory— Primary Use

Goats are important sources of meat, milk, fiber, and other by-products. Producers participating in the Goat 2009 study were asked to report the primary use for goats and kids on hand on July 1, 2009. Primary uses included fiber, milk, meat, brush control/forage management, showing and competitions (e.g., 4-H), pet goats, pack goats, or some other undefined use.

The primary use of goats differed by operations size. For very small operations, the highest percentage of operations (41.2 percent) used goats as pets. For all other herd sizes, the highest percentage of operations used goats to produce meat; this percentage increased with herd size (57.2, 77.0, and 81.5 percent for small, medium, and large operations, respectively).

Overall, milk production was the primary use for goats on 13.5 percent of operations and brush control was the primary use on 17.9 percent of operations. A higher percentage of very small and small operations used goats for brush control than medium and large operations.

a. Percentage of operations by primary use of goats and by herd size:

Percent Operations										
Herd Size (Number of Goats and Kids)										
Primary Use*	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Fiber	1.9	(0.6)	2.3	(0.6)	2.6	(0.5)	10.0	(2.1)	2.6	(0.3)
Milk	11.9	(1.2)	18.1	(1.5)	12.0	(1.0)	18.2	(1.6)	13.5	(0.7)
Meat	21.8	(1.8)	57.2	(2.1)	77.0	(1.5)	81.5	(1.8)	47.1	(1.1)
Brush control/forage management	23.7	(1.9)	19.0	(1.7)	9.6	(1.1)	2.7	(0.6)	17.9	(1.0)
Showing, competition, 4-H, or club	6.6	(1.1)	3.8	(0.8)	4.2	(0.7)	1.5	(0.5)	5.1	(0.6)
Pet/companion goats	41.2	(2.2)	13.7	(1.5)	8.9	(1.1)	1.4	(0.3)	24.7	(1.1)
Pack goats	0.0	(--)	0.7	(0.3)	0.6	(0.3)	0.0	(--)	0.3	(0.1)
Other	7.8	(1.2)	4.1	(0.9)	2.2	(0.5)	1.1	(0.3)	5.2	(0.6)

*An operation may have goats for different purposes. Therefore one operation may be represented in more than one primary use category.

A higher percentage of operations in the Northeast region used goats to produce milk, attend shows, competitions, or 4-H clubs, or for pets than operations in the West or Southeast regions. These findings probably reflect the preponderance of small operations in the Northeast region.

Fiber goats produce either mohair or cashmere. The main source of mohair production in the United States is in the Edwards Plateau region of west Texas. Thus, the fiber operations make up a higher percentage of operations in the West region than in the Southeast region.

b. Percentage of operations by primary use of goats and by region:

	Percent Operations					
	Region					
	West		Southeast		Northeast	
Primary Use*	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Fiber	4.5	(0.8)	1.2	(0.3)	2.7	(0.7)
Milk	13.9	(1.4)	6.7	(0.8)	23.5	(1.6)
Meat	57.4	(2.2)	50.7	(1.8)	31.1	(1.8)
Brush control/forage management	15.9	(1.8)	23.4	(1.7)	11.4	(1.6)
Showing, competition, 4-H, or club	4.1	(1.0)	2.8	(0.6)	9.7	(1.5)
Pet/companion goats	20.8	(2.1)	18.3	(1.6)	38.5	(2.3)
Pack goats	0.7	(0.3)	0.0	(--)	0.4	(0.2)
Other	2.9	(0.9)	6.0	(1.0)	6.3	(1.3)

*An operation may have goats for different purposes. Therefore one operation may be represented in more than one primary use category.

Meat production was the primary use of 70.1 percent of goats and milk production was the primary use of 12.1 percent.

c. Percentage of goat and kid inventory by primary use and by herd size:

Percent Goat and Kid Inventory										
Herd Size (Number of Goats and Kids)										
Primary Use	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Fiber	0.7	(0.2)	2.3	(0.8)	1.7	(0.3)	10.7	(2.2)	5.7	(1.0)
Milk	11.9	(1.5)	12.6	(1.7)	8.2	(1.0)	15.0	(1.9)	12.1	(0.9)
Meat	39.8	(3.4)	63.4	(3.4)	77.7	(1.6)	72.3	(2.7)	70.1	(1.4)
Brush control/forage management	20.9	(2.3)	12.3	(1.8)	6.2	(0.9)	1.3	(0.5)	6.1	(0.5)
Showing, competition, 4-H, or club	4.0	(0.9)	1.8	(0.4)	2.0	(0.5)	0.6	(0.3)	1.5	(0.2)
Pet/companion goats	18.2	(1.7)	5.8	(1.0)	3.0	(0.5)	0.0	(0.0)	3.4	(0.3)
Pack goats	0.0	(--)	0.1	(0.0)	0.1	(0.0)	0.0	(--)	0.0	(0.0)
Other	4.5	(1.1)	1.7	(0.5)	1.1	(0.4)	0.1	(0.1)	1.1	(0.2)
Total	100.0		100.0		100.0		100.0		100.0	

A higher percentage of goats in the Northeast region (34.2 percent) were used primarily to produce milk compared with goats in the West and Southeast regions (7.6 and 5.9 percent, respectively).

d. Percentage of goat and kid inventory by primary use of goats and by region:

Percent Goat and Kid Inventory						
Primary Use	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Fiber	9.6	(1.9)	0.9	(0.4)	1.8	(0.4)
Milk	7.6	(1.5)	5.9	(0.8)	34.2	(2.1)
Meat	77.8	(2.3)	70.7	(1.7)	47.4	(2.3)
Brush control/forage management	2.5	(0.5)	13.5	(1.2)	5.0	(1.0)
Showing, competition, 4-H, or club	0.8	(0.3)	1.8	(0.6)	3.1	(0.5)
Pet/companion goats	1.2	(0.2)	4.9	(0.6)	7.2	(0.8)
Pack goats	0.1	(0.0)	0.0	(--)	0.0	(0.0)
Other	0.4	(0.1)	2.3	(0.6)	1.3	(0.3)
Total	100.0		100.0		100.0	

Overall, 10.8 percent of operations kept goats for more than one primary use (e.g., an operation might have meat goats and milk goats).

e. Percentage of operations that kept goats for more than one primary use, by herd size:

Percent Operations									
Herd Size (Number of Goats and Kids)									
Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
8.3	(1.2)	14.1	(1.5)	12.0	(1.1)	14.9	(2.0)	10.8	(0.7)

f. Percentage of operations that kept goats for more than one primary use, by region:

Percent Operations					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
13.1	(1.6)	6.2	(0.9)	15.6	(1.5)

B. General Management

1. Primary production

Producers were asked to identify the primary production focus of their operations, i.e., meat, dairy, fiber, or other (brush control, pet, show, pack animals, etc.). The majority of very small operations (72.4 percent) kept goats primarily for reasons other than meat, dairy, or fiber. When excluding very small operations, 65.0 percent of goat operations used goats primarily for meat.

a. Percentage of operations by primary production and by herd size:

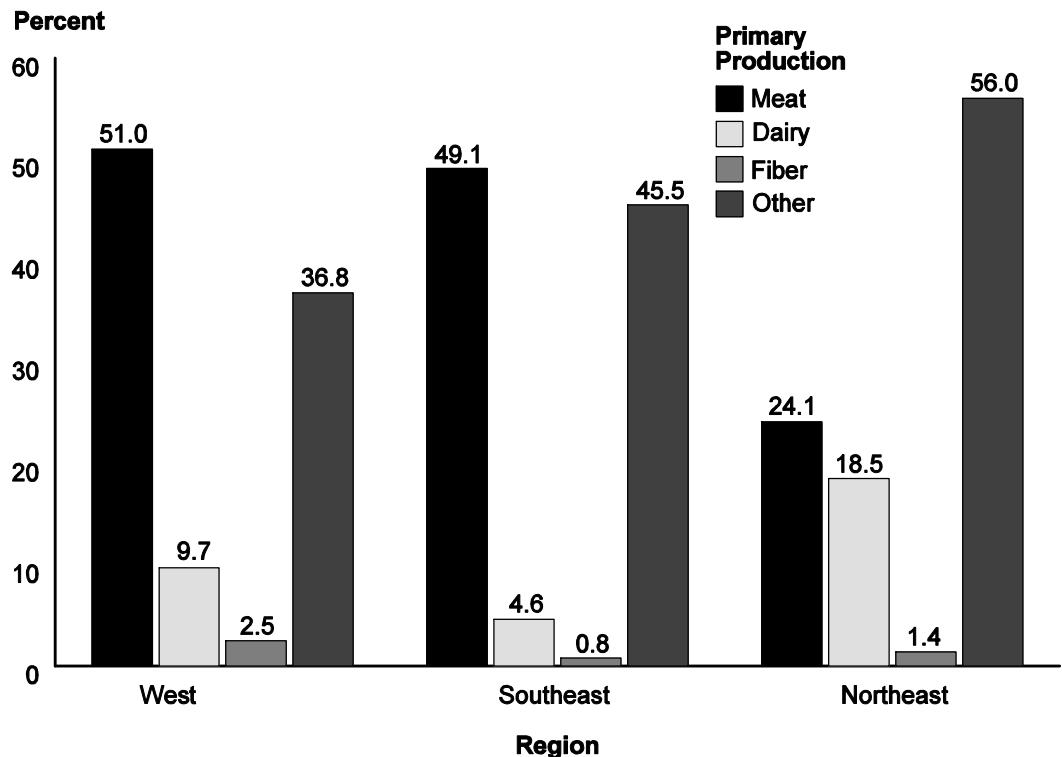
Primary Production	Percent Operations					
	Herd Size (Number of Goats and Kids)					
	Very Small (Fewer than 10)	Small (10–19)	Medium (20–99)	Large (100 or More)	All Operations	Only Operations with 10 or More
	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Meat	17.3 (1.6)	52.6 (2.2)	72.6 (1.6)	76.8 (2.1)	42.6 (1.1)	65.0 (1.2)
Dairy	9.3 (1.0)	13.3 (1.3)	7.8 (0.8)	13.6 (1.3)	10.0 (0.6)	10.6 (0.7)
Fiber	1.0 (0.3)	1.6 (0.4)	1.6 (0.3)	5.2 (1.9)	1.5 (0.2)	1.9 (0.3)
Other	72.4 (1.8)	32.5 (2.1)	18.0 (1.4)	4.4 (0.8)	45.9 (1.2)	22.5 (1.1)
Total	100.0	100.0	100.0	100.0	100.0	100.0

About one-half of operations in the West and Southeast regions (51.0 and 49.1 percent, respectively) and one-fourth of operations in the Northeast region (24.1 percent) had a primary focus of meat production.

b. Percentage of operations by primary production and by region:

Percent Operations						
Primary Production	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Meat	51.0	(2.1)	49.1	(1.8)	24.1	(1.6)
Dairy	9.7	(1.1)	4.6	(0.6)	18.5	(1.5)
Fiber	2.5	(0.5)	0.8	(0.3)	1.4	(0.2)
Other	36.8	(2.1)	45.5	(1.8)	56.0	(2.0)
Total	100.0		100.0		100.0	

Percentage of Operations by Primary Production and by Region



A higher percentage of operations on which the primary production was dairy or fiber kept goats for more than one primary use than operations on which the primary production was meat or “other.”

c. Percentage of operations that kept goats for more than one primary use, by primary production:

Percent Operations							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
11.2	(1.1)	33.8	(3.2)	27.5	(6.6)	4.9	(0.9)

2. Operator experience

The average number of years the operator had owned or managed any goats increased as herd size increased, ranging from 8.7 years for very small operations to 17.8 years for large operations.

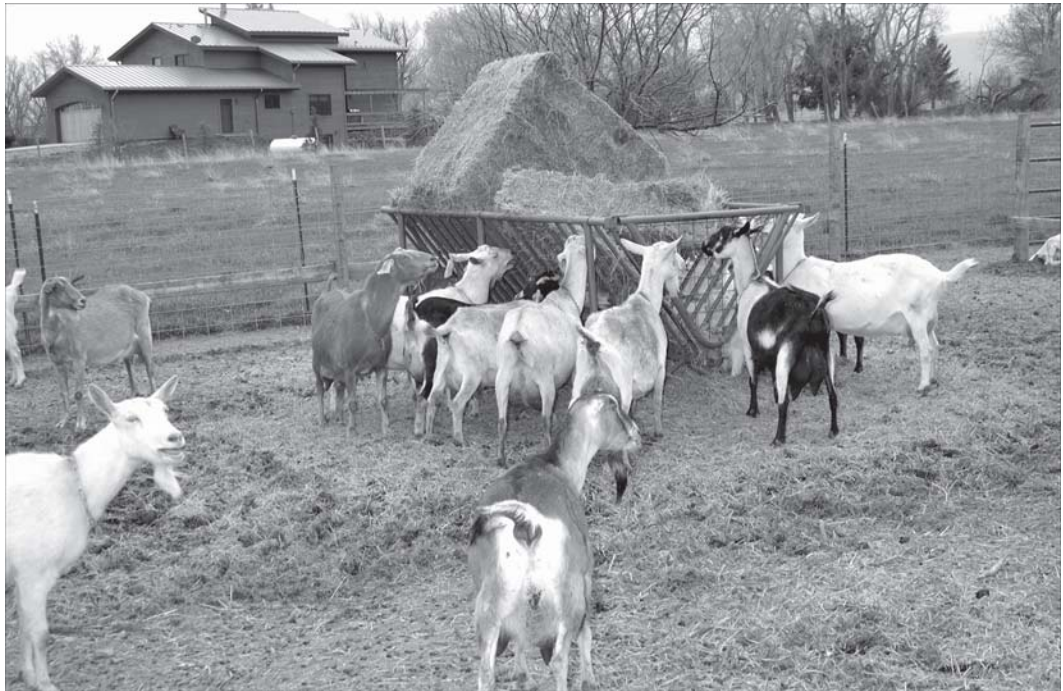
a. Average number of years the operator had owned or managed any goats, by herd size:

Average Number Years									
Herd Size (Number of Goats and Kids)									
Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
8.7	(0.3)	11.5	(0.5)	12.6	(0.4)	17.8	(0.7)	10.8	(0.2)

The average number of years that the operator had owned or managed any goats was higher on fiber goat operations (18.1 years) than on meat or dairy goat operations (11.1 and 13.8 years, respectively).

b. Average number of years that the operator had owned or managed any goats, by primary production:

Average Number Years							
Primary Production							
Meat		Dairy		Fiber		Other	
Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
11.1	(0.3)	13.8	(0.6)	18.1	(1.4)	9.6	(0.3)

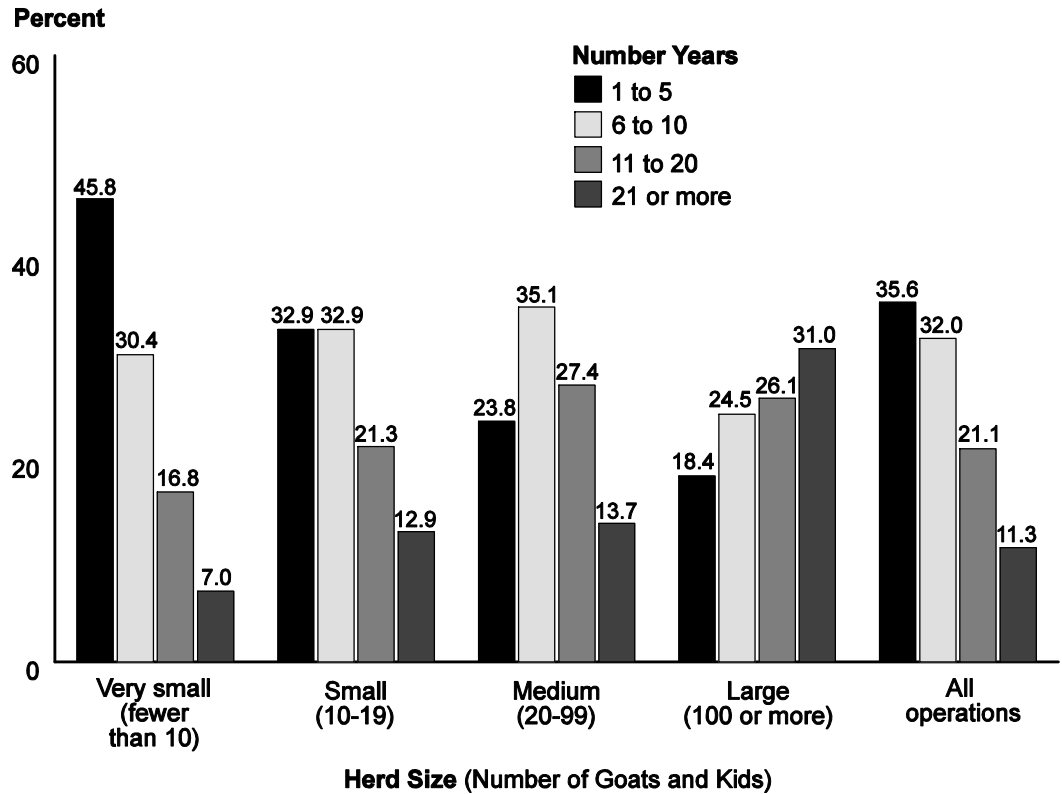


Photograph courtesy of Judy Rodriguez

More than one-third of operators (35.6 percent) had owned or managed goats for 1 to 5 years, and more than two-thirds (67.6 percent) had owned or managed goats for 1 to 10 years. On the majority of large operations (57.1 percent) operators had owned or managed goats for more than 10 years.

c. Percentage of operations by number of years operator had owned or managed any goats, and by herd size:

Percent Operations										
Herd Size (Number of Goats and Kids)										
Number Years	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
1 to 5	45.8	(2.2)	32.9	(2.1)	23.8	(1.7)	18.4	(1.6)	35.6	(1.2)
6 to 10	30.4	(2.1)	32.9	(2.1)	35.1	(1.9)	24.5	(2.0)	32.0	(1.2)
11 to 20	16.8	(1.7)	21.3	(1.9)	27.4	(1.7)	26.1	(2.4)	21.1	(1.0)
21 or more	7.0	(1.1)	12.9	(1.5)	13.7	(1.3)	31.0	(2.5)	11.3	(0.7)
Total	100.0		100.0		100.0		100.0		100.0	

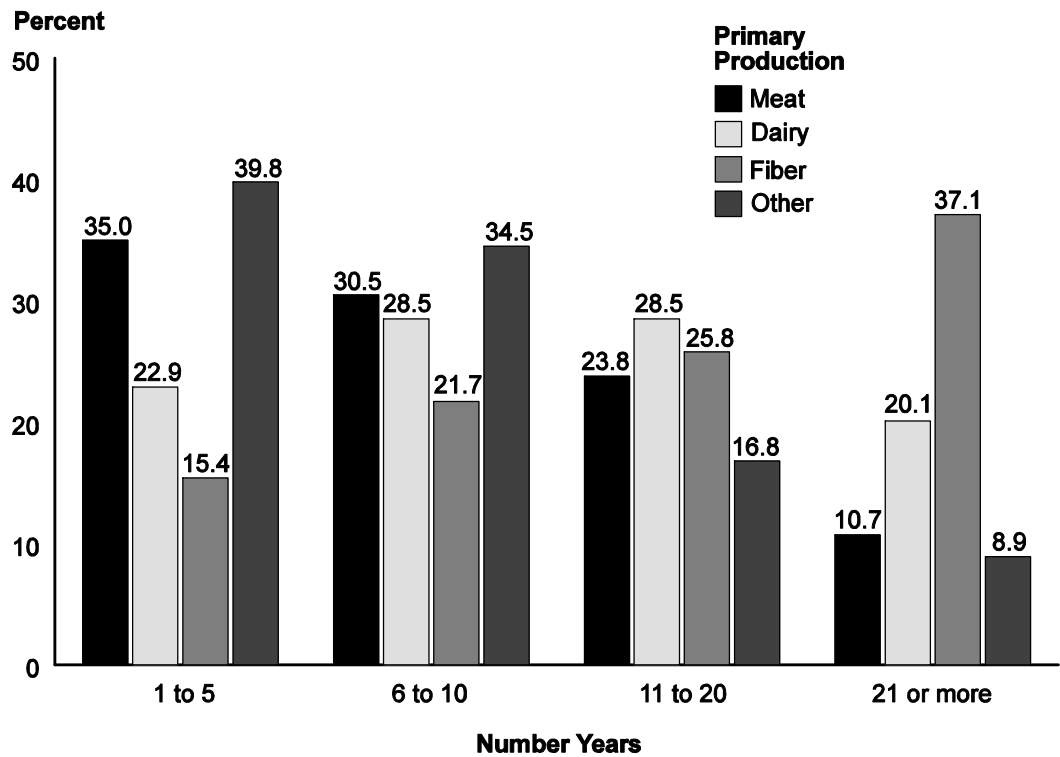
Percentage of Operations by Number of Years Operator had Owned or Managed any Goats, and by Herd Size

Percent Operations						
Region						
	West		Southeast		Northeast	
Number Years	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
1 to 5	28.0	(2.2)	38.7	(1.9)	39.0	(2.3)
6 to 10	34.2	(2.3)	30.5	(1.8)	31.8	(2.2)
11 to 20	20.7	(1.9)	22.0	(1.6)	20.2	(1.8)
21 or more	17.1	(1.6)	8.8	(1.0)	9.0	(1.2)
Total	100.0		100.0		100.0	

e. Percentage of operations by number of years operator had owned or managed any goats, and by primary production:

Percent Operations								
Primary Production								
	Meat		Dairy		Fiber		Other	
Number Years	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
1 to 5	35.0	(1.7)	22.9	(2.8)	15.4	(4.2)	39.8	(2.1)
6 to 10	30.5	(1.6)	28.5	(3.0)	21.7	(5.0)	34.5	(2.0)
11 to 20	23.8	(1.5)	28.5	(3.0)	25.8	(5.4)	16.8	(1.6)
21 or more	10.7	(1.0)	20.1	(2.5)	37.1	(6.8)	8.9	(1.2)
Total	100.0		100.0		100.0		100.0	

Percentage of Operations by Number of Years Operator had Owned or Managed any Goats, and by Primary Production



3. Reasons for raising goats

A total of 36.5 percent of operations reported that fun/hobby was a very important reason for raising goats, and 10.1 percent reported that personal consumption was a very important reason. One of three operations listed prescribed/target grazing as a very important reason for raising goats. Raising goats as a source of income was not important for 60.6 percent of operations.

a. Percentage of operations by importance of the following reasons for raising goats:

Reason	Percent Operations						Total
	Importance						
	Very Important		Somewhat Important		Not Important		
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	
Source of income (sale of live animals, meat, dairy products, fiber, etc.)	13.0	(0.7)	26.4	(1.0)	60.6	(1.1)	100.0
Personal consumption or use of meat, milk, or fiber	10.1	(0.7)	15.0	(0.8)	74.9	(1.0)	100.0
Prescribed/target grazing, brush control, etc.	33.3	(1.2)	30.4	(1.1)	36.3	(1.2)	100.0
Family tradition (always had goats)	10.0	(0.8)	16.2	(0.9)	73.8	(1.1)	100.0
Fun/hobby	36.5	(1.2)	34.7	(1.2)	28.8	(1.1)	100.0
Clubs (e.g., 4-H)	14.9	(0.9)	10.8	(0.8)	74.3	(1.1)	100.0
Other	3.6	(0.5)	0.7	(0.2)	95.7	(0.6)	100.0

As expected, the majority of large operations (57.7 percent) rated raising goats for income very important. A similar percentage of operations, regardless of herd size, rated prescribed/target grazing and clubs as very important reasons for raising goats. About 4 of 10 very small operations identified fun/hobby as a very important reason for raising goats, compared with 1 of 10 large operations.

b. Percentage of operations that rated the following reasons for raising goats **very important**, by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Reason	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Source of income (sale of live animals, meat, dairy products, fiber, etc.)	5.0	(1.0)	10.1	(1.4)	20.3	(1.6)	57.7	(2.5)
Personal consumption or use of meat, milk, or fiber	9.0	(1.2)	11.5	(1.3)	10.9	(1.1)	8.9	(1.4)
Prescribed/target grazing, brush control, etc.	29.4	(2.0)	38.6	(2.2)	35.5	(1.9)	34.1	(2.3)
Family tradition (always had goats)	10.2	(1.4)	9.5	(1.3)	9.7	(1.2)	12.6	(1.8)
Fun/hobby	43.4	(2.2)	34.5	(2.1)	31.5	(1.8)	10.5	(1.4)
Clubs (e.g., 4-H)	16.9	(1.7)	11.4	(1.3)	14.7	(1.3)	12.3	(1.5)
Other	5.8	(1.0)	1.3	(0.5)	2.0	(0.5)	1.4	(0.5)

The majority of dairy goat operations (52.9 percent) rated personal consumption a very important reason for raising goats, while 16.8 percent rated source of income as very important.

c. Percentage of operations that rated the following reasons for raising goats **very important**, by primary production:

Percent Operations								
Primary Production								
	Meat		Dairy		Fiber		Other	
Reason	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Source of income (sale of live animals, meat, dairy products, fiber, etc.)	22.3	(1.4)	16.8	(2.1)	25.2	(5.5)	2.8	(0.6)
Personal consumption or use of meat, milk, or fiber	8.0	(1.0)	52.9	(3.3)	32.7	(6.7)	1.6	(0.5)
Prescribed/ target grazing, brush control, etc.	36.8	(1.7)	13.0	(2.3)	22.1	(5.1)	34.9	(2.0)
Family tradition (always had goats)	8.7	(1.0)	20.4	(3.0)	9.2	(3.3)	9.1	(1.2)
Fun/hobby	27.0	(1.5)	44.1	(3.4)	45.9	(6.6)	43.7	(2.1)
Clubs (e.g., 4-H)	14.9	(1.2)	25.7	(3.1)	8.8	(3.1)	12.6	(1.4)
Other	1.6	(0.5)	5.6	(1.5)	0.3	(0.3)	5.1	(1.0)

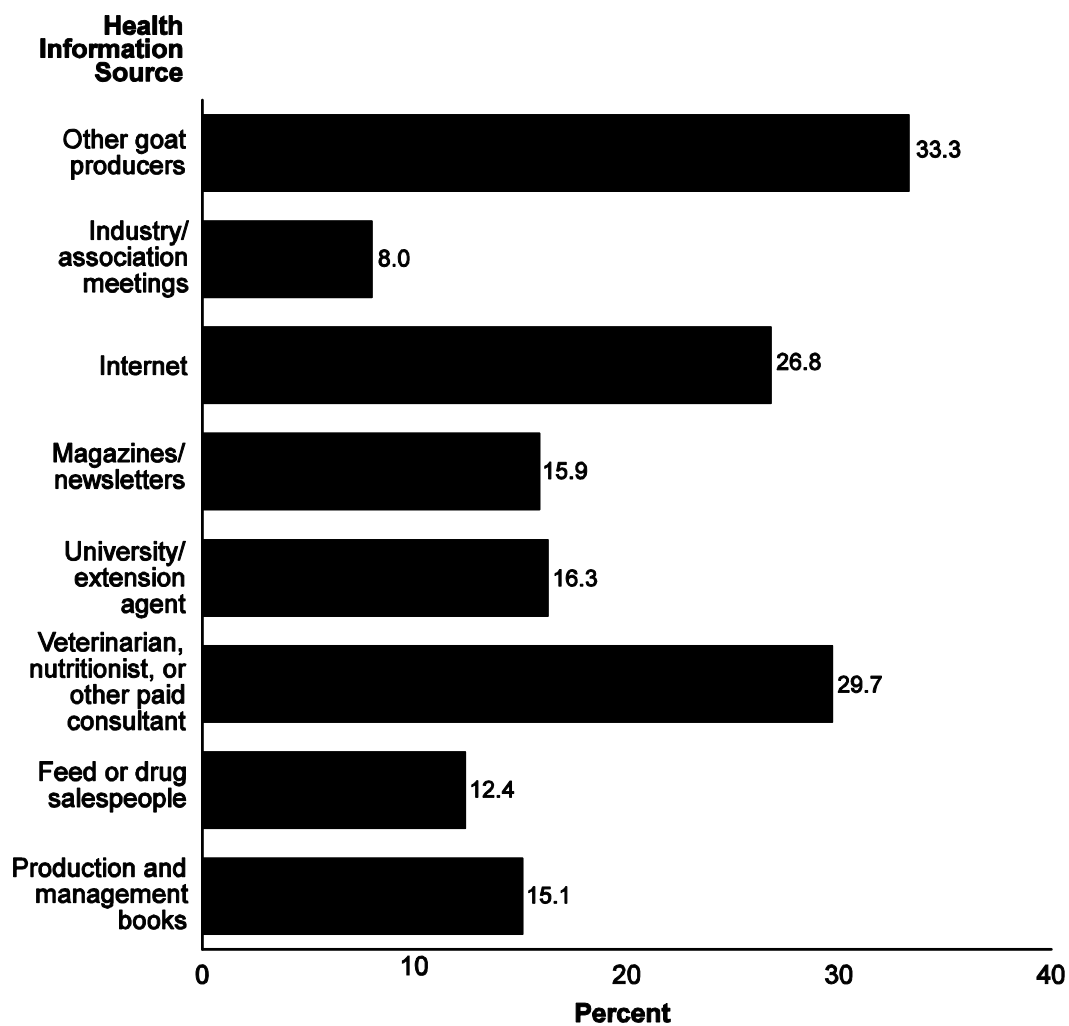
4. Sources of information on goat health

The three most important sources of goat health information were other goat producers; veterinarian, nutritionist, or other paid consultant; and the Internet (33.3, 29.7, and 26.8 percent of operations, respectively). Three of four operations (74.5 percent) did not consider goat industry association meetings an important source of health information.

a. Percentage of operations by importance of the following sources of goat health information:

	Percent Operations						Total
	Importance						
	Very Important		Somewhat Important		Not Important		
Health Information Source	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	
Other goat producers	33.3	(1.2)	34.5	(1.2)	32.2	(1.2)	100.0
Industry/ association meetings	8.0	(0.7)	17.5	(0.9)	74.5	(1.0)	100.0
Internet	26.8	(1.1)	26.0	(1.1)	47.2	(1.3)	100.0
Magazines/ newsletters	15.9	(0.9)	35.1	(1.2)	49.0	(1.3)	100.0
University/ extension agent	16.3	(0.9)	24.3	(1.1)	59.4	(1.2)	100.0
Veterinarian, nutritionist, or other paid consultant	29.7	(1.2)	34.3	(1.2)	36.0	(1.2)	100.0
Feed or drug salespeople	12.4	(0.9)	23.5	(1.0)	64.1	(1.2)	100.0
Production and management books	15.1	(0.9)	29.1	(1.1)	55.8	(1.2)	100.0

Percentage of Operations that Rated the Following Sources of Goat Health Information Very Important



Across herd sizes, over 20 percent of operations rated other goat producers; veterinarian, nutritionist, or other paid consultant; and the Internet very important sources of goat health information.

b. Percentage of operations that rated the following sources of goat health information **very important**, by herd size:

Health Information Source	Percent Operations							
	Herd Size (Number of Goats and Kids)							
	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Other goat producers	30.6	(2.1)	32.9	(2.1)	36.5	(1.9)	42.1	(2.5)
Industry/ association meetings	7.0	(1.2)	6.8	(1.1)	9.1	(1.1)	14.4	(1.7)
Internet	26.7	(2.0)	26.9	(2.0)	27.9	(1.7)	22.2	(1.9)
Magazines/ newsletters	12.7	(1.4)	16.4	(1.6)	19.6	(1.5)	22.9	(2.0)
University/ extension agent	17.8	(1.7)	12.8	(1.6)	16.3	(1.4)	18.4	(1.9)
Veterinarian, nutritionist, or other paid consultant	34.0	(2.1)	23.4	(1.8)	27.3	(1.7)	29.3	(2.2)
Feed or drug salespeople	13.4	(1.6)	10.2	(1.4)	12.0	(1.3)	15.1	(2.0)
Production and management books	15.1	(1.6)	12.9	(1.5)	16.9	(1.4)	14.1	(1.6)

The highest percentages of operations rated other goat producers; veterinarian, nutritionist, or other paid consultant; and the Internet very important sources of goat health information, regardless of primary production focus.

c. Percentage of operations that rated the following sources of goat health information **very important**, by primary production:

	Percent Operations							
	Primary Production							
	Meat		Dairy		Fiber		Other	
Information Source	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Other goat producers	38.1	(1.7)	47.0	(3.3)	31.6	(5.9)	25.7	(1.9)
Industry/ association meetings	10.0	(1.1)	14.7	(2.5)	8.9	(3.5)	4.4	(0.9)
Internet	29.2	(1.6)	38.7	(3.3)	40.0	(6.4)	21.5	(1.7)
Magazines/ newsletters	20.2	(1.4)	29.0	(3.1)	22.7	(4.9)	8.7	(1.1)
University/ extension agent	18.0	(1.3)	21.5	(3.0)	15.7	(4.1)	13.6	(1.5)
Veterinarian, nutritionist, or other paid consultant	28.3	(1.5)	37.5	(3.3)	37.4	(6.1)	29.0	(1.9)
Feed or drug salespeople	14.4	(1.3)	14.0	(2.7)	9.3	(4.8)	10.2	(1.3)
Production and management books	18.3	(1.4)	26.7	(3.0)	22.5	(5.3)	9.1	(1.1)

5. Goat association and club membership

A relatively low percentage of goat operations belonged to a national or a State/local goat association or club (16.9 and 13.1 percent of operations, respectively), which likely explains why so few producers considered industry/association meetings important sources of information (see previous table). Of all operation sizes, large operations were most likely to belong to a national or a State/local goat organization or club.

a. Percentage of operations that belonged to a goat association or club, by association type and by herd size:

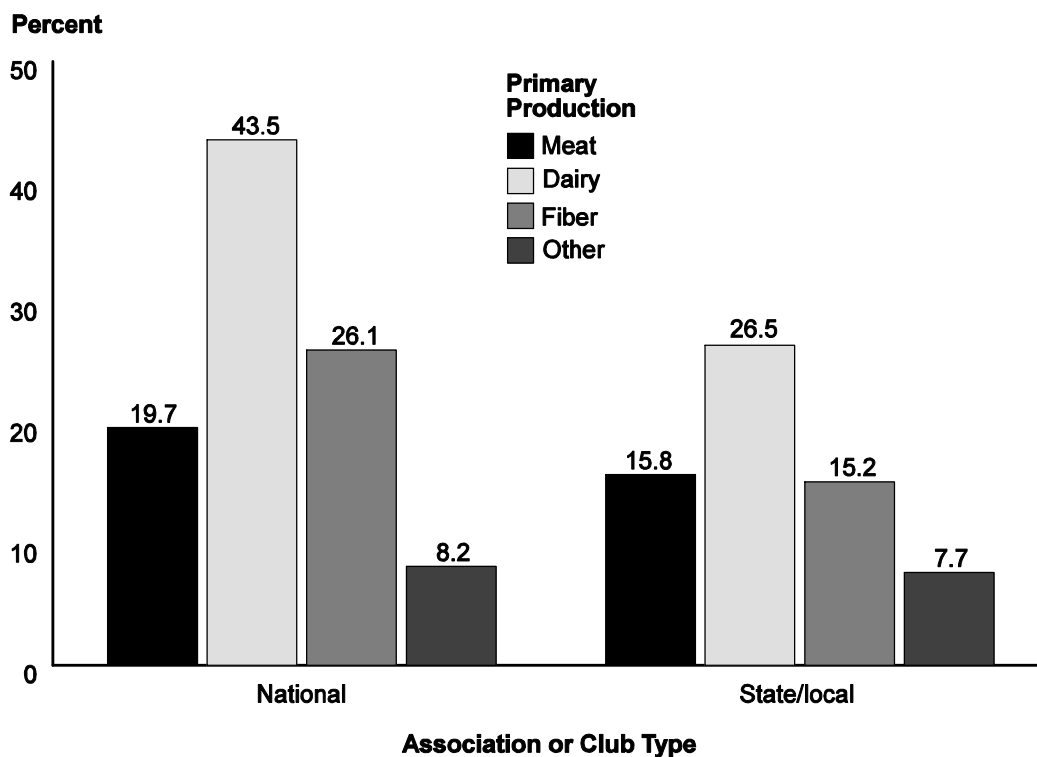
Percent Operations										
Herd Size (Number of Goats and Kids)										
Association or Club Type	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
National	10.5	(1.3)	18.8	(1.7)	24.5	(1.6)	27.9	(2.2)	16.9	(0.8)
State/local	8.7	(1.3)	12.3	(1.5)	18.3	(1.4)	29.6	(2.2)	13.1	(0.8)

Almost one-half of dairy goat operations (43.5 percent) belonged to a national goat association or club. Also, a higher percentage of dairy goat operations belonged to a State/local goat association or club (26.5 percent) compared with “other” goat operations (7.7 percent). Other goat operations had the lowest percentage of participation in national or State/local goat associations or clubs.

b. Percentage of operations that belonged to a goat association or club, by association type and by primary production:

Percent Operations								
Primary Production								
Association or Club Type	Meat		Dairy		Fiber		Other	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
National	19.7	(1.3)	43.5	(3.2)	26.1	(5.1)	8.2	(1.1)
State/local	15.8	(1.1)	26.5	(2.9)	15.2	(3.9)	7.7	(1.1)

Percentage of Operations that Belonged to a Goat Association or Club, by Association Type and by Primary Production



6. Production records

Record-keeping systems are commonly used to track productivity, reproduction, and the health of does. The majority of operations (52.6 percent) kept noncomputerized records. Overall, a higher percentage of large operations than small or medium operations kept records. Almost three of four large operations (73.8 percent) used some type of records.

a. Percentage of operations by type of production records used during the previous 12 months, and by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Record Type	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Computerized	14.2	(1.6)	16.8	(1.4)	25.4	(2.1)	16.5	(1.0)
Noncomputerized (e.g., handwritten or typed)	45.6	(2.2)	55.8	(1.9)	65.1	(2.5)	52.6	(1.3)
Either	51.0	(2.2)	61.7	(1.9)	73.8	(2.4)	58.6	(1.3)
Both	8.8	(1.3)	10.8	(1.2)	16.8	(1.8)	10.6	(0.8)

There were no differences by primary production in the percentage of operations that used computerized records. However, a higher percentage of dairy operations used noncomputerized records (72.9 percent) than meat (56.4 percent) or “other” (31.6 percent) operations.

b. Percentage of operations by type of production records used during the previous 12 months, and by primary production:

Percent Operations*								
Primary Production								
	Meat		Dairy		Fiber		Other	
Record Type	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Computerized	18.2	(1.3)	20.8	(2.9)	21.9	(5.6)	9.4	(1.6)
Noncomputerized (e.g., handwritten or typed)	56.4	(1.7)	72.9	(3.1)	59.2	(7.7)	31.6	(2.6)
Either	63.2	(1.7)	76.6	(3.0)	66.6	(7.8)	36.0	(2.7)
Both	11.4	(1.1)	17.1	(2.7)	14.4	(4.4)	5.0	(1.2)

*Operations with 10 or more goats.

7. Herd management type

Producers were asked about how they had managed their goats during the previous 12 months, i.e., open range, fenced range, fenced farm, dry lot, or other. For this report, an open range was defined as any unfenced acreage, even if it was a few acres surrounded by residential areas. Only 4.0 percent of operations used open range. Fenced range was defined as any fenced area not specifically cultivated to raise forage or browse; 59.3 percent of operations managed any goats on fenced range. Fenced farm was defined as any fenced area specifically cultivated to raise forage or browse; 53.5 percent of operations managed any goats on a fenced farm area. More than one herd management type could be used on an operation.

a. Percentage of operations by herd management type used during the previous 12 months:

Herd Management Type	Percent Operations ¹	Standard Error
Open range (unfenced acreage)	4.0	(0.5)
Fenced range (uncultivated fenced acreage)	59.3	(1.3)
Fenced farm (cultivated pasture or browse)	53.5	(1.3)
Dry lot ²	21.9	(1.1)
Other	0.7	(0.2)

¹Operations with 10 or more goats.

²Pen that does not allow for grazing and is not meant for finishing goats on a high-energy diet for slaughter.

Although dry lot was the primary herd management type for only 7.1 percent of operations, over one-fifth of operations used a dry lot for at least one goat (21.9 percent) [see previous table]. Fenced range and fenced farm were the predominant management types across herd sizes. A higher percentage of large operations than small operations used fenced range (57.2 and 46.3 percent, respectively). A lower percentage of large operations than small operations used fenced farm (27.4 and 43.5 percent, respectively).

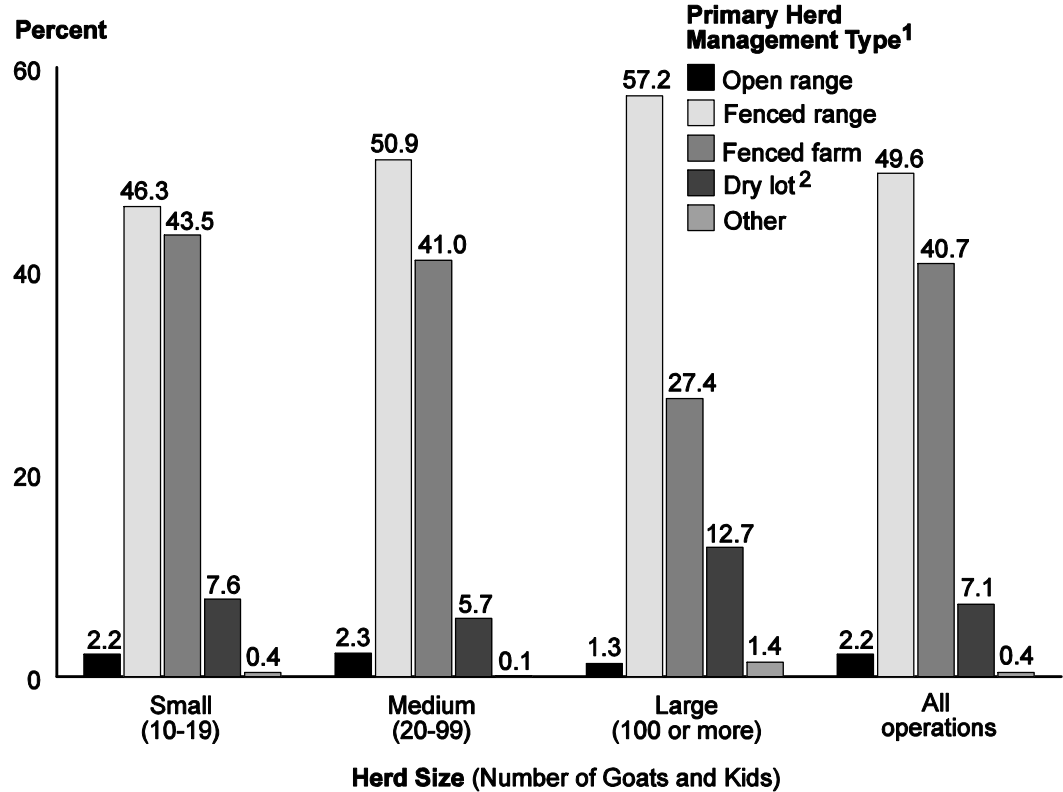
b. Percentage of operations by **primary** herd management type used during the previous 12 months, and by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Primary Herd Management Type ¹	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Open range (unfenced acreage)	2.2	(0.7)	2.3	(0.6)	1.3	(0.7)	2.2	(0.4)
Fenced range (uncultivated fenced acreage)	46.3	(2.3)	50.9	(1.9)	57.2	(2.2)	49.6	(1.3)
Fenced farm (cultivated pasture or browse)	43.5	(2.3)	41.0	(1.9)	27.4	(2.0)	40.7	(1.3)
Dry lot ²	7.6	(1.1)	5.7	(0.8)	12.7	(1.3)	7.1	(0.6)
Other	0.4	(0.3)	0.1	(0.1)	1.4	(0.8)	0.4	(0.2)
Total	100.0		100.0		100.0		100.0	

¹ Management type used to manage the majority of goats.

² Pen which does not allow grazing and is not meant for finishing goats on a high-energy diet for slaughter.

Percentage of Operations by Primary Herd Management Type Used During the Previous 12 Months, and by Herd Size



¹Management type used to manage the majority of goats.

²Pen which does not allow grazing and is not meant for finishing goats on a high-energy diet for slaughter.

A higher percentage of operations in the West region than in the Northeast region used fenced range as the primary management type for goat herds (55.9 and 39.4 percent, respectively). A lower percentage of operations in the West region than in the Southeast or Northeast regions used fenced farms.

c. Percentage of operations by **primary** herd management type and by region:

	Percent Operations ¹					
	Region					
	West		Southeast		Northeast	
Primary Herd Management Type ²	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Open range (unfenced acreage)	2.2	(0.8)	2.4	(0.6)	1.7	(0.7)
Fenced range (uncultivated fenced acreage)	55.9	(2.4)	49.9	(2.0)	39.4	(2.5)
Fenced farm (cultivated pasture or browse)	31.0	(2.3)	45.6	(2.0)	44.4	(2.5)
Dry lot ³	10.4	(1.4)	2.0	(0.6)	13.8	(1.6)
Other	0.5	(0.4)	0.1	(0.1)	0.7	(0.4)
Total	100.0		100.0		100.0	

¹ Operations with 10 or more goats.

² Management type used to manage the majority of goats.

³ Pen which does not allow grazing and is not meant for finishing goats on a high-energy diet for slaughter.

8. Feed and pasture management

Goats have a preference for browse (forbs, woody plants, vines, brush) versus legumes or grass and provide an efficient mechanism for converting roughage into useable products such as meat, milk, or fiber. Because concentrates are usually digested more rapidly than forages, they can be used as an energy supplement, especially for late pregnancy or during lactation.

Six of 10 goat operations (60.9 percent) used pasture grasses as a feed source the entire time during the previous 12 months, and nearly 9 of 10 operations (88.0 percent) used cut hay at least part time.

a. Percentage of operations by type of feed source or supplement used for any goats or kids during the previous 12 months, and by how often feed source was used:

Percent Operations*							
How Often Used (Previous 12 Months)							
	Entire Time		Part Time		Never		
Feed Source/Supplement	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Total
Roughage							
Pasture grasses (native or cultivated)	60.9	(1.3)	31.2	(1.2)	7.9	(0.7)	100.0
Weeds and/or browse (forbs, woody plants, vines, brush)	43.1	(1.3)	39.3	(1.3)	17.6	(1.0)	100.0
Cut hay (grass or legume)	21.6	(1.1)	66.4	(1.3)	12.0	(0.9)	100.0
Other roughage	1.3	(0.3)	10.3	(0.8)	88.4	(0.9)	100.0
Concentrate/Other							
Concentrate/grain rations (e.g., corn, milo, barley, wheat, oats, rye)	22.9	(1.1)	44.4	(1.4)	32.7	(1.3)	100.0
High protein feed (e.g., cottonseed meal, soybean meal, fish meal, or other specialty protein)	11.3	(0.9)	27.5	(1.2)	61.2	(1.3)	100.0
Crop residue/by-product feeds (e.g., fat, soy hulls, wheat middlings)	1.8	(0.3)	12.3	(0.9)	85.9	(0.9)	100.0
Commercial goat feed (e.g., "goat chow")	23.5	(1.2)	39.3	(1.3)	37.2	(1.3)	100.0
Other	2.1	(0.4)	2.4	(0.4)	95.5	(0.5)	100.0

*Operations with 10 or more goats.

More than 8 of 10 operations (82.4 percent) used weeds and/or browse as a feed source at least part time during the previous 12 months. Approximately 90 percent of operations used pasture grasses (92.1 percent) or cut hay (88.0 percent) as a feed source at least part time. Nearly 7 of 10 operations fed grain rations (67.3 percent) or commercial goat feed (62.8 percent) at least part time. The percentage of operations that used high protein feeds at least part time increased as herd size increased.

b. Percentage of operations by type of feed source or supplement used **at least part time** for any goats or kids during the previous 12 months, and by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Feed Source/ Supplement	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Roughage								
Pasture grasses (native or cultivated)	90.5	(1.3)	93.5	(0.9)	91.3	(1.1)	92.1	(0.7)
Weeds and/or browse (forbs, woody plants, vines, brush)	84.4	(1.6)	80.8	(1.5)	82.1	(1.6)	82.4	(1.0)
Cut hay (grass or legume)	89.0	(1.5)	88.9	(1.3)	79.1	(2.1)	88.0	(0.9)
Other roughage	12.4	(1.6)	11.0	(1.2)	11.0	(1.4)	11.6	(0.9)
Concentrate/Other								
Concentrate/ grain rations (e.g., corn, milo, barley, wheat, oats, rye)	63.7	(2.2)	69.8	(1.8)	69.3	(2.3)	67.3	(1.3)
High protein feed (e.g., cottonseed meal, soybean meal, fish meal, or other specialty protein)	31.8	(2.1)	41.8	(1.9)	52.5	(2.5)	38.8	(1.3)
Crop residue/ by-product feeds (e.g., fat, soy hulls, wheat middlings)	13.5	(1.6)	13.8	(1.3)	18.4	(1.7)	14.1	(0.9)
Commercial goat feed (e.g., “goat chow”)	64.3	(2.2)	63.1	(1.8)	54.3	(2.5)	62.8	(1.3)
Other	3.5	(0.8)	5.1	(0.8)	5.7	(1.1)	4.5	(0.5)

A lower percentage of operations in the Northeast region (70.4 percent) used weeds and/or browse as a feed source at least part time compared with operations in the Southeast and West regions (84.3 and 87.4 percent, respectively). A higher percentage of operations in the Northeast region (95.8 percent) used cut hay compared with operations in the Southeast and West regions (87.4 and 83.8 percent, respectively).

c. Percentage of operations by type of feed source or supplement used **at least part time** for any goats or kids during the previous 12 months, and by region:

Percent Operations*						
Feed Source/Supplement	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Roughage						
Pasture grasses (native or cultivated)	89.6	(1.5)	94.8	(0.9)	90.0	(1.4)
Weeds/ browse (forbs, woody plants, vines, brush)	87.4	(1.6)	84.3	(1.5)	70.4	(2.3)
Cut hay (grass or legume)	83.8	(1.9)	87.4	(1.4)	95.8	(1.0)
Other roughage	10.1	(1.5)	14.6	(1.5)	6.9	(1.3)
Concentrate/Other						
Concentrate/grain rations (e.g., corn, milo, barley, wheat, oats, rye)	65.9	(2.4)	64.8	(2.0)	75.3	(2.2)
High protein feed (e.g., cottonseed meal, soybean meal, fish meal, or other specialty protein)	41.0	(2.4)	38.5	(2.0)	36.0	(2.4)
Crop residue/ by-product feeds (e.g., fat, soy hulls, wheat middlings)	10.9	(1.6)	15.9	(1.5)	14.9	(1.7)
Commercial goat feed (e.g., "goat chow")	63.0	(2.3)	65.1	(2.0)	57.0	(2.5)
Other	4.0	(0.9)	4.5	(0.8)	5.4	(1.1)

*Operations with 10 or more goats.

d. Percentage of operations that fed only roughage (no concentrates, high protein feed, crop residue, by-product feeds, or commercial goat feed), by primary production:

Percent Operations									
Primary Production									
Meat		Dairy		Fiber		Other		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
4.2	(0.7)	1.1	(0.7)	4.4	(2.2)	7.7	(1.5)	4.7	(0.6)

e. Percentage of operations that fed only roughage (no concentrates, high protein feed, crop residue, by-product feeds, or commercial goat feed), by region:

Percent Operations					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
7.3	(1.3)	3.4	(0.7)	3.5	(0.9)

Almost no operations (0.3 percent) placed goats on public land and a relatively low percentage (4.2 percent) placed goats on land not part of their operation.

f. Percentage of operations that placed goats or kids on the following types of land during the previous 12 months, by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Land Type	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Public (State or Federal)	0.5	(0.3)	0.0	(--)	0.7	(0.2)	0.3	(0.1)
Other (not part of this operation)	3.5	(0.8)	4.5	(0.8)	5.0	(1.0)	4.2	(0.5)
Neither	96.0	(0.8)	95.5	(0.8)	94.8	(1.0)	95.6	(0.5)

g. Percentage of operations that placed goats or kids on the following types of land during the previous 12 months, by region:

*Operations with 10 or more goats.

h. For operations that placed goats or kids on public land (State or Federal) or other land not part of the operation during the previous 12 months, percentage of operations that commingled goats or kids with sheep or goats from other operations:

*Operations with 10 or more goats.

C. Breeding Practices and Reproductive Outcomes

Unless goats are being kept as pets or companions—and not as a source of income—breeding practices and reproductive outcomes should be central to managing a goat herd.

1. Breeding management

Almost 9 of 10 operations bred some goats during the previous 12 months. A lower percentage of small operations (83.8 percent) bred goats compared with large operations (97.5 percent).

a. Percentage of operations that bred any goats during the previous 12 months, by herd size:

Percent Operations							
Herd Size (Number of Goats and Kids)							
Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
83.8	(1.6)	89.3	(1.2)	97.5	(0.6)	87.9	(0.9)

The percentage of operations that bred any goats did not differ by region.

b. Percentage of operations that bred any goats during the previous 12 months, by region:

Percent Operations*					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
91.4	(1.4)	85.7	(1.5)	87.5	(1.7)

*Operations with 10 or more goats.

About 3 of 4 fiber operations bred goats compared with more than 9 of 10 meat and dairy operations.

c. Percentage of operations that bred any goats during the previous 12 months, by primary production:

Percent Operations*							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
93.4	(0.9)	91.4	(2.4)	76.3	(5.7)	71.3	(2.6)

*Operations with 10 or more goats.

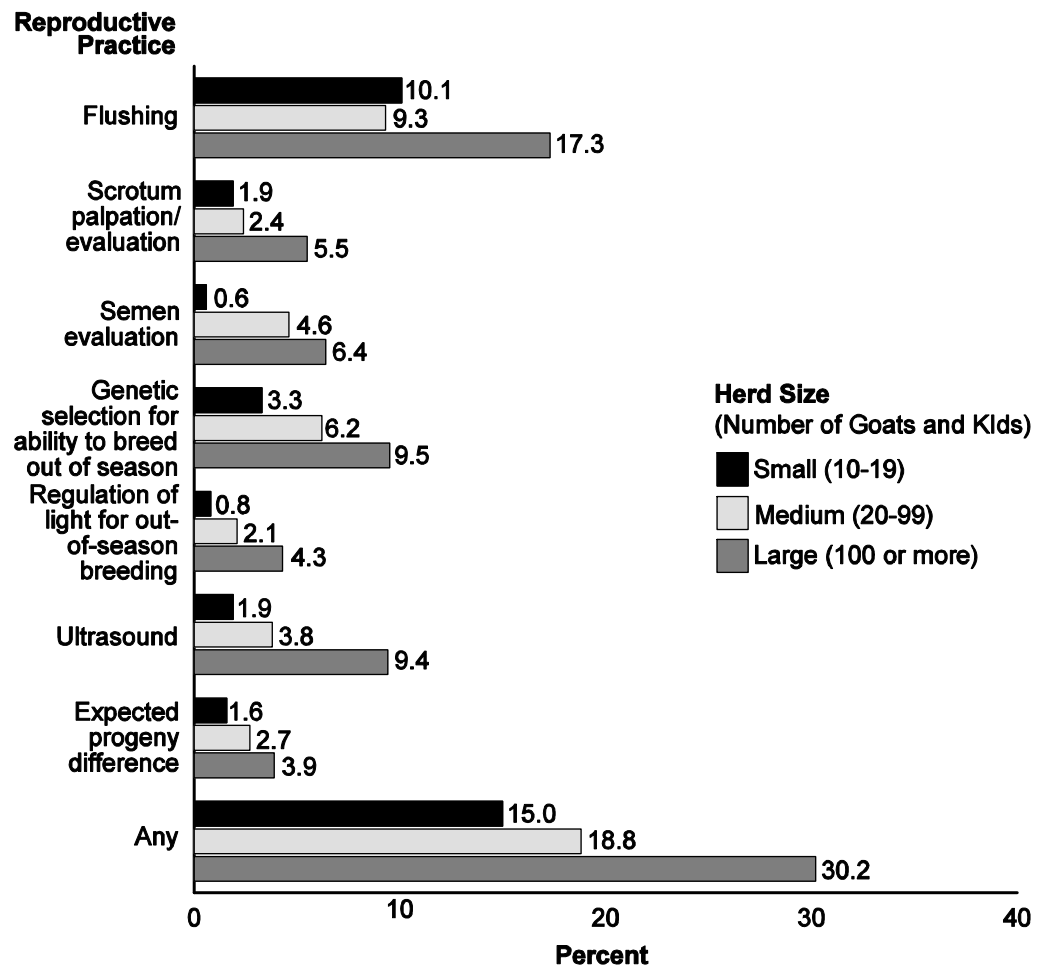
The reproductive performance of a goat herd can be improved by intensive management practices such as flushing does, evaluating scrotums in bucks, genetic selection, light regulation, ultrasound, and the use of genetic information, such as expected progeny difference (EPD). Flushing was the only reproductive practice implemented by more than 10 percent of all operations. Flushing is used to provide does with extra nutrition prior to, and sometimes during, the breeding season. Flushing increases the number of ovulations, resulting in a higher proportion of twins and triplets.

A breeding soundness examination should be conducted prior to each breeding season to assess buck fertility. A breeding soundness exam should include a physical examination for general health, but the basis for the exam should be the examination of the reproductive organs (scrotum palpation/evaluation and semen evaluation). Only 2.5 percent of operations performed scrotum palpations/evaluations, and only 3.3 percent evaluated semen. A higher percentage of large operations performed each of the following reproductive practices than small operations. In addition, a higher percentage of large operations (30.2 percent) performed at least one (any) reproductive practice compared with small operations (15.0 percent).

d. For operations that bred any goats during the previous 12 months, percentage of operations by reproductive practice and by herd size:

Reproductive Practice	Percent Operations							
	Herd Size (Number of Goats and Kids)							
	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Flushing (does fed extra energy ration prior to breeding season)	10.1	(1.5)	9.3	(1.1)	17.3	(1.9)	10.4	(0.8)
Scrotum palpation/evaluation	1.9	(0.6)	2.4	(0.5)	5.5	(1.1)	2.5	(0.4)
Semen evaluation	0.6	(0.4)	4.6	(0.9)	6.4	(1.1)	3.3	(0.5)
Genetic selection for ability to breed out of season	3.3	(0.9)	6.2	(0.9)	9.5	(1.2)	5.4	(0.6)
Regulation of light for out-of-season breeding	0.8	(0.4)	2.1	(0.5)	4.3	(1.0)	1.8	(0.3)
Ultrasound (pregnancy diagnosis, fetal counting)	1.9	(0.6)	3.8	(0.7)	9.4	(1.3)	3.6	(0.5)
Expected progeny difference (EPD) or genetic evaluation information (e.g., DHIA, university or extension data, etc.)	1.6	(0.6)	2.7	(0.6)	3.9	(0.7)	2.4	(0.4)
Any	15.0	(1.8)	18.8	(1.5)	30.2	(2.2)	18.5	(1.1)

**For Operations that Bred any Goats During the Previous 12 Months,
Percentage of Operations by Reproductive Practice and by Herd Size**



Flushing and ultrasound were used by a lower percentage of operations in the Southeast region than in the West and Northeast regions. A lower percentage of operations in the Southeast region performed any reproductive practice compared with operations in the West and Northeast regions.

e. For operations that bred any goats during the previous 12 months, percentage of operations by reproductive practice and by region:

	Percent Operations*					
	Region					
	West		Southeast		Northeast	
Reproductive Practice	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Flushing (does fed extra energy ration prior to breeding season)	11.5	(1.5)	7.9	(1.1)	14.3	(1.9)
Scrotum palpation/evaluation	3.0	(0.7)	1.7	(0.5)	3.7	(1.0)
Semen evaluation	4.0	(1.0)	2.8	(0.7)	3.1	(0.8)
Genetic selection for ability to breed out of season	6.7	(1.2)	4.1	(0.9)	6.5	(1.2)
Regulation of light for out-of-season breeding	1.9	(0.6)	1.0	(0.4)	3.5	(0.8)
Ultrasound (pregnancy diagnosis, fetal counting)	3.5	(0.8)	2.5	(0.6)	6.5	(1.2)
Expected Progeny Difference (EPD) or genetic evaluation information (e.g., DHIA, university or extension data, etc.)	3.1	(0.7)	1.7	(0.5)	2.8	(0.8)
Any	21.7	(2.0)	13.8	(1.5)	24.2	(2.2)

*Operations with 10 or more goats.

Controlling the does' estrus cycle helps ensure the effectiveness of artificial insemination and a continuous milk supply from dairy goats. About 4 of 10 operations controlled breeding times to synchronize estrus.

f. For operations that bred any goats during the previous 12 months, percentage of operations that controlled breeding times (synchronized estrus), by herd size:

Percent Operations							
Herd Size (Number of Goats and Kids)							
Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
36.2	(2.4)	40.0	(2.0)	45.8	(2.5)	39.1	(1.4)

g. For operations that bred any goats during the previous 12 months, percentage of operations that controlled breeding times (synchronized estrus), by region:

Percent Operations*					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
35.2	(2.4)	38.8	(2.1)	46.2	(2.6)

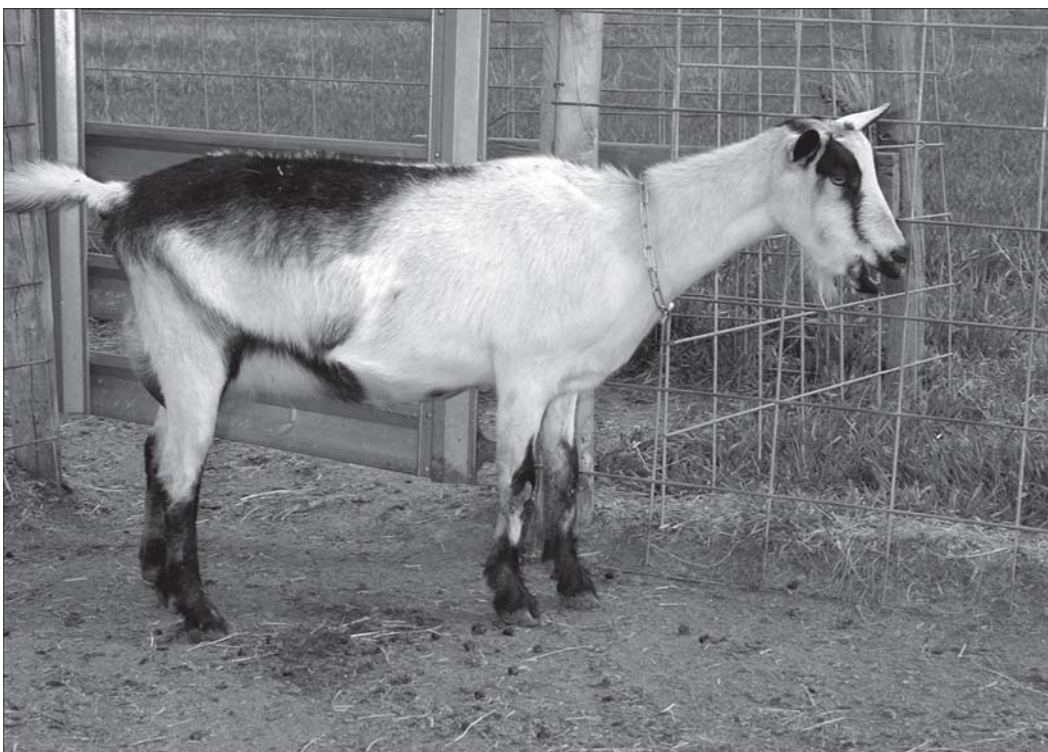
*Operations with 10 or more goats.

A higher percentage of dairy goat operations (50.8 percent) controlled breeding times to synchronize estrus compared with meat and “other” operations (38.9, 40.7, and 33.0 percent, respectively).

h. For operations that bred any goats during the previous 12 months, percentage of operations that controlled breeding times (synchronized estrus), by primary production:

Percent Operations*							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
38.9	(1.7)	50.8	(3.8)	40.7	(8.6)	33.0	(3.2)

*Operations with 10 or more goats.



Photograph courtesy of Judy Rodriguez

Relatively few operations controlled breeding time to allow artificial insemination or embryo transfer (4.3 percent), and a higher percentage of large operations than small operations used the practice (10.3 and 1.6 percent, respectively).

i. For operations that controlled breeding times (synchronized estrus) during the previous 12 months, percentage of operations by reason for controlling breeding times and by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Reason	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
More uniformly sized or aged kid crop	43.9	(4.0)	53.8	(3.1)	47.5	(3.6)	49.5	(2.2)
Condensed kidding to maximize labor	44.7	(4.1)	46.5	(3.1)	42.2	(3.4)	45.3	(2.2)
More efficient use of facilities	42.0	(4.0)	43.8	(3.1)	42.5	(3.5)	43.0	(2.2)
Market timing	46.0	(4.1)	49.9	(3.2)	60.7	(3.7)	49.8	(2.2)
More efficient use of bucks	35.4	(3.8)	40.0	(3.1)	34.1	(3.1)	37.7	(2.2)
To allow artificial insemination (AI) or embryo transfer	1.6	(1.2)	4.7	(1.1)	10.3	(2.0)	4.3	(0.8)
Other	6.6	(2.0)	8.1	(1.7)	5.6	(1.5)	7.3	(1.2)

2. Bucks used for natural breeding

Almost 100 percent of operations, regardless of herd size, used bucks for natural breeding during the last breeding season.

a. For operations that bred any goats during the previous 12 months, percentage of operations that used any bucks for natural breeding during the last breeding season, by herd size:

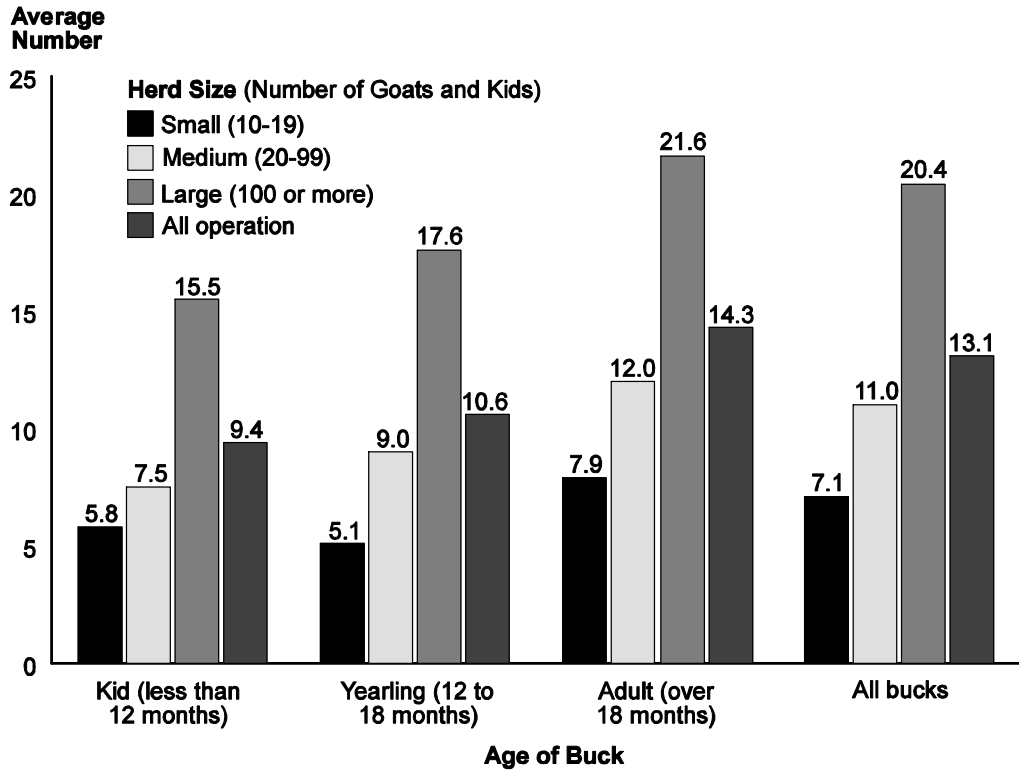
Percent Operations							
Herd Size (Number of Goats and Kids)							
Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
99.0	(0.4)	98.2	(0.5)	99.6	(0.2)	98.6	(0.3)

A buck can be expected to breed 20 to 30 does per season. On large operations, all bucks bred an average of 20.4 does and adult bucks bred an average of 21.6 does. In comparison, on small and medium operations all bucks bred an average of 7.1 and 11.0 does, respectively.

b. For operations that used any bucks for natural breeding during the last breeding season, average number of does bred per buck, by age of buck and by herd size:

Average Number of Does								
Herd Size (Number of Goats and Kids)								
Age of Buck	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
Kid (less than 12 months)	5.8	(1.2)	7.5	(1.1)	15.5	(1.7)	9.4	(0.8)
Yearling (12 to 18 months)	5.1	(0.5)	9.0	(0.7)	17.6	(1.4)	10.6	(0.5)
Adult (over 18 months)	7.9	(0.6)	12.0	(0.6)	21.6	(1.3)	14.3	(0.5)
All bucks	7.1	(0.5)	11.0	(0.5)	20.4	(1.1)	13.1	(0.4)

For Operations that Used any Bucks for Natural Breeding During the Last Breeding Season, Average Number of Does Bred per Buck, by Age of Buck and by Herd Size



More than three-fourths of bred does (77.7 percent) were bred by adult bucks, while 15.4 percent were bred by yearling bucks. There were no differences across herd sizes in the percentages of bred does by age of buck.

c. For operations that used any bucks for natural breeding during the last breeding season, percentage of does bred, by age of buck and by herd size:

Percent Does								
Herd Size (Number of Goats and Kids)								
Age of Buck	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kid (less than 12 months)	8.7	(2.0)	6.9	(1.3)	6.4	(1.0)	6.9	(0.7)
Yearling (12 to 18 months)	14.5	(2.0)	16.2	(1.5)	15.1	(1.4)	15.4	(1.0)
Adult (over 18 months)	76.8	(2.9)	76.9	(1.9)	78.5	(1.8)	77.7	(1.2)
Total	100.0		100.0		100.0		100.0	

A higher percentage of does in the Northeast region (11.7 percent) were bred by bucks less than 12 months old compared with does in the West and Southeast regions (5.8 and 6.1 percent, respectively).

d. For operations that used any bucks for natural breeding during the last breeding season, percentage of does bred, by age of buck and by region:

Percent Does*						
Region						
Age of Buck	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kid (less than 12 months)	5.8	(1.1)	6.1	(1.0)	11.7	(1.3)
Yearling (12 to 18 months)	12.0	(1.3)	20.3	(1.8)	19.3	(1.7)
Adult (over 18 months)	82.2	(1.7)	73.6	(2.0)	69.0	(2.1)
Total	100.0		100.0		100.0	

*On operations with 10 or more goats.

A higher percentage of does on dairy goat operations (17.3 percent) were bred to kid bucks or yearlings compared with does on meat, fiber, and “other” operations (5.4, 1.9, and 6.9 percent, respectively).

e. For operations that used any bucks for natural breeding during the last breeding season, percentage of does bred, by age of buck and by primary production:

Percent Does*								
Primary Production								
	Meat		Dairy		Fiber		Other	
Age of Buck	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kid (less than 12 months)	5.4	(0.9)	17.3	(1.7)	1.9	(1.5)	6.9	(1.8)
Yearling (12 to 18 months)	14.2	(1.1)	21.0	(1.8)	10.2	(4.2)	20.8	(2.5)
Adult (over 18 months)	80.4	(1.4)	61.7	(2.6)	87.9	(4.7)	72.3	(3.0)
Total	100.0		100.0		100.0		100.0	

*On operations with 10 or more goats.

D. Kid Crop and Management

1. Outcome of does expected to kid

About 9 of 10 operations with 10 or more goats (87.9 percent) produced kids between July 1, 2008, and June 30, 2009. Note that for small, medium, and large operations, the percentage of operations that had kids was similar to the percentage of operations that bred goats (table a, p 40). The low percentage of very small herds that had kids born (36.1 percent) may reflect a low percentage of these operations that bred goats or a relatively poor kidding rate. However, since the majority of very small herds use goats primarily as pets or companions (41.2 percent), and another 23.7 percent use goats for brush control, a high percentage of goats on these operations might not be bred.

a. Percentage of operations that had any kids born between July 1, 2008, and June 30, 2009, by herd size:

Percent Operations											
Herd Size (Number of Goats and Kids)											
Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations		Only Operations with 10 or More	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
36.1	(2.1)	84.1	(1.6)	89.1	(1.2)	97.3	(0.7)	63.7	(1.2)	87.9	(0.9)

Estimates for the percentage of operations that had any kids born by region, primary production, or primary herd management (tables b, c, d) were not reported for operations with fewer than 10 goats, since many of these operations owned goats as pets. Even when excluding operations with fewer than 10 goats, there are still many operations on which no kids were born during the year prior to the study. The West region reported the highest percentage of operations with kids born during the year prior to the study. Additionally, when examining percentages by primary production, meat and dairy operations had the highest percentage of operations on which kids were born from July 1, 2008, through June 30, 2009.

b. Percentage of operations that had any kids born between July 1, 2008, and June 30, 2009, by region:

Percent Operations*					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
91.7	(1.4)	85.9	(1.5)	86.6	(1.8)

*Operations with 10 or more goats.

c. Percentage of operations that had any kids born between July 1, 2008, and June 30, 2009, by primary production:

Percent Operations*							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
93.1	(0.9)	91.0	(2.5)	76.8	(5.8)	72.2	(2.6)

*Operations with 10 or more goats.

d. Percentage of operations that had any kids born between July 1, 2008, and June 30, 2009, by primary herd management type:

Percent Operations ¹									
Herd Management Type									
Open Range		Fenced Range		Fenced Farm		Dry Lot		Other Herd Type	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
86.7	(7.2)	88.8	(1.3)	86.8	(1.5)	87.6	(3.1)	²	

¹Operations with 10 or more goats.

²Too few to report.

About one-half of operations (47.8 percent) had only one defined breeding season a year, while about one-third (34.8 percent) had no defined breeding season. A relatively low percentage of operations had accelerated breeding programs: 15.8 percent of operations had two breeding seasons per year, and 1.3 percent had three breeding seasons every 2 years.

e. For operations that had any kids born between July 1, 2008, and June 30, 2009, percentage of operations by number of defined breeding seasons and by herd size:

Percent Operations									
Herd Size (Number of Goats and Kids)									
Number Defined Breeding Seasons	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct. Std. Error
One per year	57.6	(3.5)	45.6	(2.4)	42.1	(2.0)	50.2	(2.5)	47.8 (1.4)
Two per year	13.6	(2.5)	14.1	(1.8)	18.0	(1.6)	19.3	(1.8)	15.8 (1.0)
Three per 2 years	0.0	(--)	1.4	(0.6)	2.0	(0.5)	2.6	(0.6)	1.3 (0.3)
No defined breeding season	28.3	(3.3)	38.9	(2.4)	37.7	(2.0)	26.9	(2.3)	34.8 (1.4)
Other	0.5	(0.5)	0.0	(--)	0.2	(0.1)	1.0	(0.4)	0.3 (0.1)
Total	100.0		100.0		100.0		100.0		100.0

The Northeast region had the highest percentage of operations with one breeding season (66.1 percent) and the lowest percentage of operations with no defined breeding season (19.8 percent).

f. For operations that had any kids born between July 1, 2008, and June 30, 2009, percentage of operations by number of defined breeding seasons and by region:

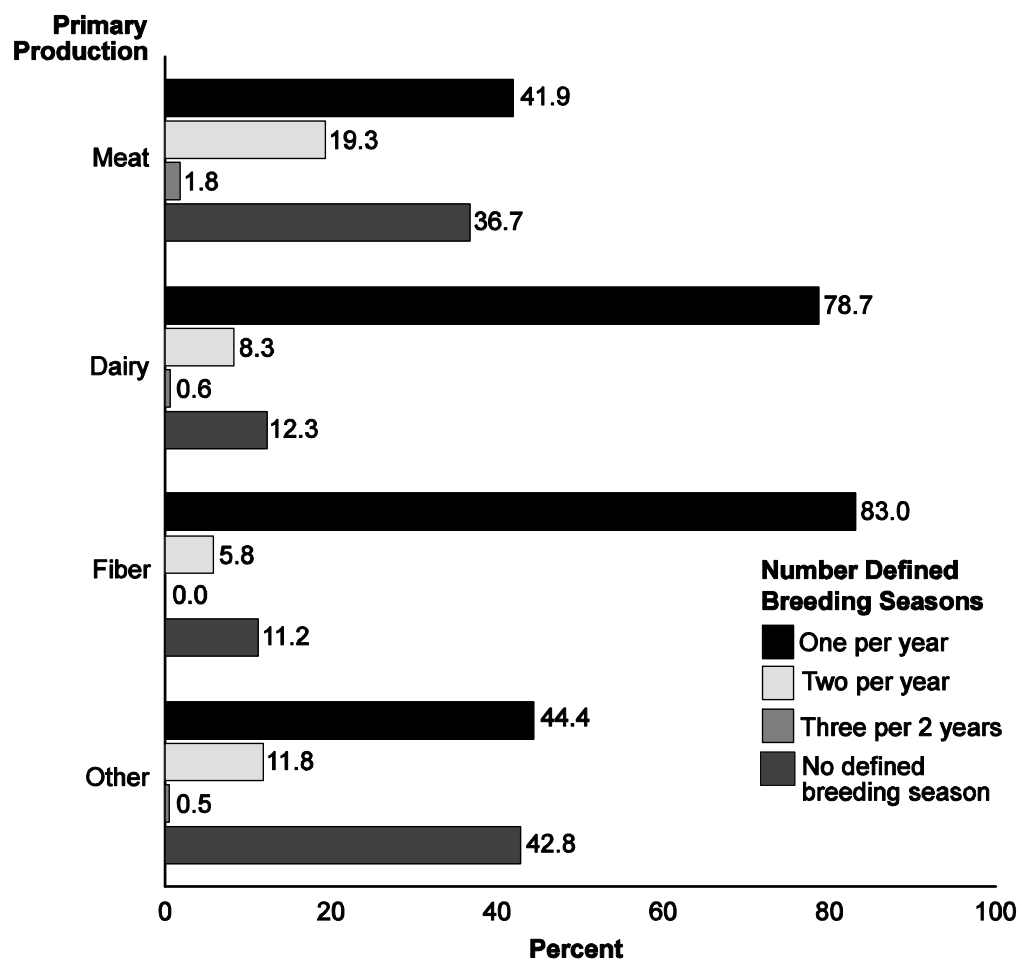
Percent Operations						
Number Defined Breeding Seasons	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
One per year	48.8	(2.5)	37.9	(2.0)	66.1	(2.5)
Two per year	18.2	(2.0)	16.2	(1.6)	12.1	(1.7)
Three per 2 years	1.1	(0.5)	1.3	(0.4)	1.5	(0.5)
No defined breeding season	31.7	(2.4)	44.3	(2.1)	19.8	(2.1)
Other	0.2	(0.1)	0.3	(0.3)	0.5	(0.2)
Total	100.0		100.0		100.0	

A higher percentage of operations with a dairy or fiber production focus had one breeding season per year compared with operations with a meat or “other” production focus.

g. For operations with any kids born between July 1, 2008, and June 30, 2009, percentage of operations by number of breeding seasons and by primary production:

Percent Operations								
Primary Production								
	Meat		Dairy		Fiber		Other	
Number Defined Breeding Seasons	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
One per year	41.9	(1.7)	78.7	(2.6)	83.0	(5.3)	44.4	(3.1)
Two per year	19.3	(1.4)	8.3	(1.8)	5.8	(3.2)	11.8	(2.0)
Three per 2 years	1.8	(0.4)	0.6	(0.4)	0.0	(--)	0.5	(0.3)
No defined breeding season	36.7	(1.7)	12.3	(2.0)	11.2	(4.3)	42.8	(3.1)
Other	0.3	(0.1)	0.1	(0.0)	0.0	(--)	0.5	(0.5)
Total	100.0		100.0		100.0		100.0	

For Operations with any Kids Born Between July 1, 2008, and June 30, 2009, Percentage of Operations by Number of Breeding Seasons and by Primary Production



Overall, 90.8 percent of bred does gave birth. About 2.5 percent of bred does were known to have aborted. The percentage of bred does that gave birth and the percentage that aborted did not differ by herd size or region.

h. For operations that had any kids born between July 1, 2008, and June 30, 2009, percentage of bred does by outcome and by herd size:

Percent Does								
Herd Size (Number of Goats and Kids)								
Outcome	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Gave birth (kid born dead or alive)	91.2	(0.8)	91.2	(0.8)	90.5	(0.8)	90.8	(0.5)
Aborted (known abortion)	2.5	(0.5)	2.6	(0.3)	2.5	(0.3)	2.5	(0.2)
Never became pregnant (or unobserved abortion)	6.3	(0.7)	6.2	(0.7)	7.0	(0.7)	6.7	(0.5)
Total	100.0		100.0		100.0		100.0	

i. For operations with kids born between July 1, 2008, and June 30, 2009, percentage of bred does by outcome and by region:

Percent Does*						
Region						
Outcome	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Gave birth (kid born dead or alive)	90.5	(0.8)	91.5	(0.7)	90.8	(0.6)
Aborted (known abortion)	2.4	(0.3)	2.8	(0.3)	2.7	(0.2)
Never became pregnant (or unobserved abortion)	7.1	(0.7)	5.7	(0.6)	6.5	(0.5)
Total	100.0		100.0		100.0	

*On operations with 10 or more goats.

A lower percentage of bred does on fiber operations gave birth (81.1 percent) compared with bred does on meat, dairy, and “other” operations.

j. For operations with kids born between July 1, 2008, and June 30, 2009, percentage of bred does by outcome and by primary production:

Percent Does*								
Primary Production								
Outcome	Meat		Dairy		Fiber		Other	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Gave birth (kid born dead or alive)	91.3	(0.6)	90.0	(0.9)	81.1	(1.6)	90.5	(1.2)
Aborted (known abortion)	2.2	(0.2)	3.6	(0.4)	7.7	(2.6)	2.7	(0.5)
Never became pregnant (or unobserved abortion)	6.5	(0.6)	6.4	(0.7)	11.2	(2.3)	6.8	(1.1)
Total	100.0		100.0		100.0		100.0	

*On operations with 10 or more goats.

About one-half of bred does (49.6 percent) produced more than one kid. The percentage of does that had multiple kids was lower on large operations (43.1 percent) than on medium and small operations (56.9 and 54.2 percent, respectively).

k. For does that kidded between July 1, 2008, and June 30, 2009, percentage of does that had more than one kid (twins/triplets), by herd size:

Percent Does							
Herd Size (Number of Goats and Kids)							
Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
54.2	(2.0)	56.9	(1.6)	43.1	(2.4)	49.6	(1.5)

The percentage of does that had multiple kids was lower in the West region (41.5 percent) than in the Southeast and Northeast regions (55.3 and 66.9 percent, respectively).

l. For does that kidded between July 1, 2008, and June 30, 2009, percentage of does that had more than one kid (twins/triplets), by region:

Percent Does*					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
41.5	(2.2)	55.3	(1.7)	66.9	(1.8)

*On operations with 10 or more goats.

Dairy goat operations had the highest percentage of does that had multiple kids (twins/triplets). Less than 20 percent of does on fiber operations produced multiple kids.

m. For does that kidded between July 1, 2008, and June 30, 2009, percentage of does that had more than one kid (twins/triplets), by primary production focus:

Percent Does*							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
47.1	(1.7)	68.4	(2.4)	18.1	(5.7)	54.1	(2.7)

*On operations with 10 or more goats.

Natural mating by bucks on the operation and by bucks from another operation was used to breed 99.1 percent of the does that kidded. Artificial insemination and embryo transfer are rarely used to breed does on U.S. goat operations.

n. For operations with kids born between July 1, 2008, and June 30, 2009, percentage of does bred, by breeding method:

Breeding Method	Percent Does Bred*	Std. Error
Artificial insemination (AI)	0.5	(0.1)
Embryo transfer	0.4	(0.1)
Natural, by this operation's bucks	95.6	(0.6)
Natural, by another operation's bucks	3.5	(0.6)
Total	100.0	

*On operations with 10 or more goats.

A higher percentage of large operations used artificial insemination and embryo transfer (3.7 and 2.9 percent, respectively) than small operations (0.9 and 0.2 percent, respectively) to breed does.

o. For operations with kids born between July 1, 2008, and June 30, 2009, percentage of operations by breeding method and by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Breeding Method	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Artificial insemination (AI)	0.9	(0.5)	2.7	(0.6)	3.7	(0.8)	2.1	(0.4)
Embryo transfer	0.2	(0.2)	1.0	(0.4)	2.9	(0.8)	0.9	(0.2)
Natural, by this operation's bucks	93.0	(1.2)	93.9	(1.0)	95.8	(1.5)	93.8	(0.7)
Natural, by another operation's bucks	8.5	(1.3)	8.3	(1.1)	4.5	(1.5)	8.0	(0.8)

A higher percentage of dairy goat operations (7.8 percent) than meat, fiber, or “other” goat operations (1.5, 0.5, and 1.1 percent, respectively) used artificial insemination. Embryo transfer was not used by any dairy or fiber goat operations. Only 1.0 percent of meat goat operations used embryo transfer.

p. For operations with kids born between July 1, 2008, and June 30, 2009, percentage of operations by breeding method and by primary production:

Percent Operations*								
Primary Production								
Breeding Method	Meat		Dairy		Fiber		Other	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Artificial insemination (AI)	1.5	(0.4)	7.8	(1.9)	0.5	(0.4)	1.1	(0.5)
Embryo transfer	1.0	(0.3)	0.0	(--)	0.0	(--)	0.9	(0.5)
Natural, by this operation's bucks	94.2	(0.9)	93.9	(1.8)	96.1	(2.0)	91.6	(1.8)
Natural, by another operation's bucks	7.3	(1.0)	10.7	(2.2)	8.9	(3.9)	8.9	(1.9)

*Operations with 10 or more goats.

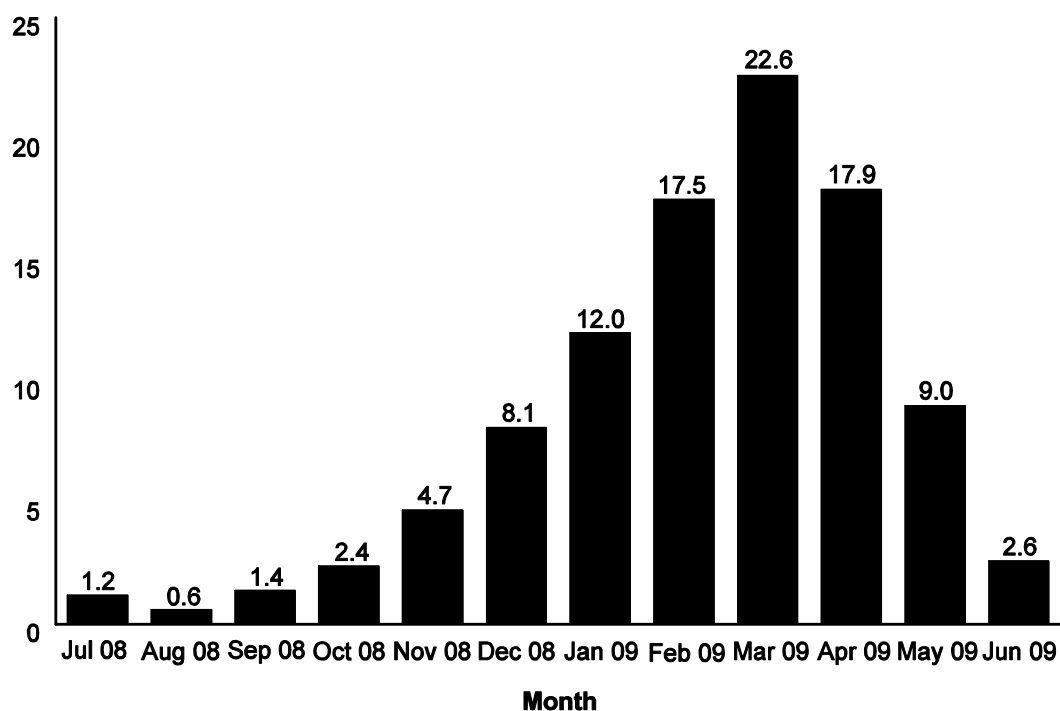
2. Month kids were born

Of all kids born between July 1, 2008, and June 30, 2009, 70.0 percent were born from January through April. As would be expected due to climate, a lower percentage of kids in the Southeast region (62.6 percent) than in the West or Northeast regions (71.4 and 76.6 percent, respectively) were born in the 4-month peak kidding season.

Percentage of kids born (alive or dead) July 1, 2008, through June 30, 2009, by month and by region:

Percent Kids Born*								
Region								
Month	West		Southeast		Northeast		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
July 2008	1.2	(0.7)	1.7	(0.4)	0.5	(0.2)	1.2	(0.4)
August 2008	0.2	(0.1)	1.1	(0.3)	0.7	(0.2)	0.6	(0.1)
September 2008	0.8	(0.2)	2.4	(0.6)	2.0	(0.6)	1.4	(0.2)
October 2008	1.9	(0.5)	3.8	(0.7)	1.8	(0.4)	2.4	(0.3)
November 2008	5.1	(0.9)	5.5	(0.8)	2.3	(0.5)	4.7	(0.5)
December 2008	7.8	(1.2)	10.7	(1.1)	5.6	(0.8)	8.1	(0.7)
January 2009	10.1	(1.3)	12.4	(1.2)	16.4	(1.4)	12.0	(0.8)
February 2009	15.4	(1.4)	18.4	(1.4)	22.2	(1.4)	17.5	(0.9)
March 2009	25.3	(2.1)	16.6	(1.3)	23.7	(1.9)	22.6	(1.2)
April 2009	20.6	(2.4)	15.2	(1.3)	14.3	(1.3)	17.9	(1.4)
May 2009	9.6	(2.5)	8.6	(1.2)	7.9	(1.1)	9.0	(1.4)
June 2009	2.0	(0.4)	3.6	(0.6)	2.6	(0.4)	2.6	(0.3)
Total	100.0		100.0		100.0		100.0	

*Operations with 10 or more goats.

Percentage of Kids Born* (Alive or Dead) July 1, 2008, through June 30, 2009, by Month
Percent

*On operations with 10 or more goats.

3. Kids born alive

More than 9 of 10 kids born (94.6 percent) were born alive.

a. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of kids born alive, by herd size:

Percent Kids Born Alive							
Herd Size (Number of Goats and Kids)							
Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
92.8	(0.7)	94.5	(0.4)	95.2	(0.4)	94.6	(0.3)

b. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of kids born alive, by primary production:

Percent Kids Born Alive*							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
95.0	(0.3)	93.4	(0.5)	94.1	(2.4)	93.0	(0.9)

*Operations with 10 or more goats.

On average, 1.3 kids were born alive per doe. Overall, goat fiber operations had the lowest average number of kids born alive per doe.

c. For operations with kids born from July 1, 2008, through June 30, 2009, average number of kids born alive per doe, by primary production and by herd size:

Average Kidding Ratio								
Herd Size (Number of Goats and Kids)								
Primary Production	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
Meat	1.4	(0.0)	1.4	(0.0)	1.2	(0.0)	1.3	(0.0)
Dairy	1.6	(0.1)	1.4	(0.1)	1.4	(0.1)	1.4	(0.0)
Fiber	1.3	(0.1)	1.3	(0.2)	0.8	(0.0)	0.9	(0.1)
Other	1.3	(0.0)	1.4	(0.1)	1.6	(0.1)	1.4	(0.1)
All operations	1.4	(0.0)	1.4	(0.0)	1.2	(0.0)	1.3	(0.0)

Overall, 11.5 percent of kids born alive died before weaning. Kids on large operations experienced a higher mortality compared with kids on small and medium operations.

d. Percentage of kids born alive during the most recent kid crop, by kid weaning status and by herd size:

Kid Weaning Status	Percent Kids							
	Herd Size (Number of Goats and Kids)							
	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Sold prior to weaning	9.4	(1.9)	11.7	(1.5)	13.8	(1.8)	12.4	(1.1)
Weaned	50.2	(2.9)	51.5	(2.4)	38.9	(3.0)	45.3	(1.8)
Died before weaning	8.2	(1.1)	8.7	(1.1)	14.6	(1.8)	11.5	(1.0)
Not yet weaned	32.2	(3.6)	28.1	(2.2)	32.7	(2.9)	30.8	(1.7)
Total	100.0		100.0		100.0		100.0	

Data collected July 1–31, 2009.



Photograph courtesy of Judy Rodriguez

Percent Kids*						
Region						
	West		Southeast		Northeast	
Kid Weaning Status	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Sold prior to weaning	12.9	(1.8)	9.9	(1.4)	14.5	(1.8)
Weaned	37.1	(2.9)	54.7	(2.2)	55.0	(2.4)
Died before weaning	14.0	(1.8)	7.3	(0.8)	10.0	(1.0)
Not yet weaned	36.0	(2.9)	28.1	(1.9)	20.5	(1.7)
Total	100.0		100.0		100.0	

*Operations with 10 or more goats.
Data collected July 1–31, 2009.

A higher percentage of kids on dairy goat operations were sold prior to weaning than kids on all other production types.

f. Percentage of kids born alive during the most recent kid crop, by kid weaning status and by primary production:

Percent Kids*								
Primary Production								
	Meat		Dairy		Fiber		Other	
Kid Weaning Status	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Sold prior to weaning	10.3	(1.2)	29.3	(2.8)	3.4	(2.2)	5.5	(1.4)
Weaned	44.0	(2.2)	46.5	(2.2)	33.2	(11.3)	60.0	(4.4)
Died before weaning	12.1	(1.3)	10.0	(1.2)	13.0	(5.8)	6.6	(1.0)
Not yet weaned	33.6	(2.0)	14.2	(1.8)	50.4	(14.1)	27.9	(3.7)
Total	100.0		100.0		100.0		100.0	

*On operations with 10 or more goats.
Data collected July 1–31, 2009.

4. Kidding areas

The majority of operations (55.9 percent) used a barn or shed without individual pens for the birth of at least one kid. Some operations used more than one kidding area. More than 4 of 10 operations (42.0 percent) had at least one kid born on other fenced pasture. A higher percentage of large operations than small and medium operations used other fenced pasture for the birth of at least one kid (53.4, 36.0, and 44.1 percent, respectively).

a. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by kidding area used for at least one kid and by herd size:

Percent Operations								
Kidding Area	Herd Size (Number of Goats and Kids)							
	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Individual kidding pen or jug	21.4	(1.9)	26.3	(1.7)	23.3	(2.1)	24.1	(1.1)
Barn or shed (covered without individual pens)	57.8	(2.5)	55.8	(2.0)	49.4	(2.4)	55.9	(1.4)
Special kidding pasture that allows increased observation and/or shelter	13.2	(1.7)	18.6	(1.6)	21.4	(2.2)	16.8	(1.1)
Other fenced pasture	36.0	(2.4)	44.1	(2.0)	53.4	(2.4)	42.0	(1.4)
Open range	4.8	(1.0)	9.3	(1.3)	11.1	(1.5)	7.8	(0.8)
Dry lot (pen which does not allow grazing)	9.8	(1.6)	9.2	(1.2)	14.8	(1.6)	10.0	(0.9)
Other	0.2	(0.2)	0.6	(0.3)	0.3	(0.2)	0.4	(0.2)

A higher percentage of dairy goat operations than meat goat operations had at least one kid born in an individual kidding pen or jug or other covered shelter (e.g., barn or shed). The highest percentages of meat and fiber operations (54.8 and 51.4 percent, respectively) had at least one kid born in a barn or shed, followed by other fenced pasture (46.4 and 44.9 percent, respectively).

b. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by kidding area used for at least one kid and by primary production:

Percent Operations*								
Primary Production								
	Meat		Dairy		Fiber		Other	
Kidding Area	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Individual kidding pen or jug	22.2	(1.4)	36.6	(3.6)	33.8	(7.2)	22.9	(2.7)
Barn or shed (covered without individual pens)	54.8	(1.8)	70.4	(3.5)	51.4	(8.9)	52.0	(3.4)
Special kidding pasture that allows increased observation and/or shelter	19.6	(1.4)	6.7	(1.9)	35.4	(8.9)	10.8	(2.2)
Other fenced pasture	46.4	(1.8)	19.7	(3.1)	44.9	(9.2)	38.2	(3.3)
Open range	7.9	(1.0)	1.4	(0.7)	10.6	(6.3)	10.7	(2.1)
Dry lot (pen which does not allow grazing)	10.1	(1.1)	13.5	(2.5)	5.9	(3.0)	7.8	(1.9)
Other	0.4	(0.2)	0.0	(0.0)	0.0	(0.0)	0.8	(0.6)

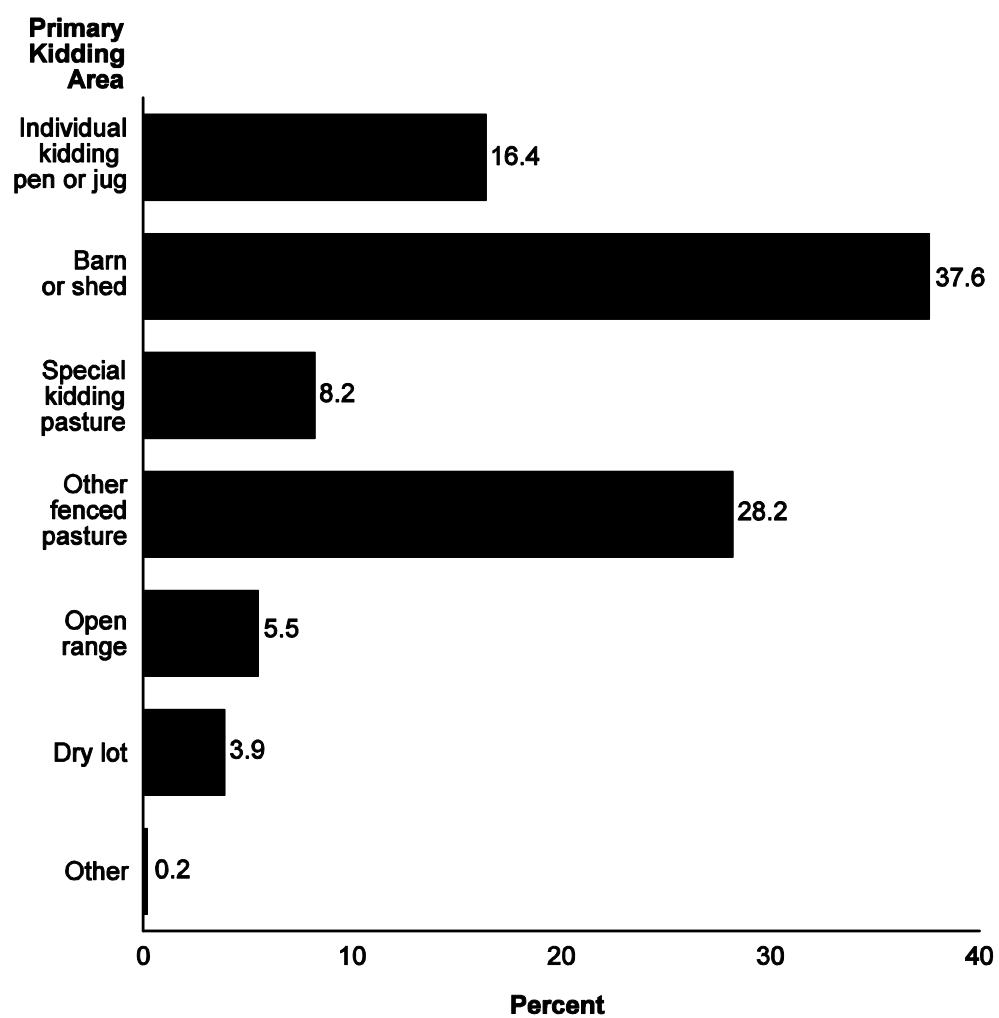
*Operations with 10 or more goats.

A barn or shed and other fenced pasture were the primary kidding areas used on the highest percentages of small operations (44.4 and 23.7 percent of operations, respectively). The percentage of operations that used a barn or shed as the primary kidding area ranged from 44.4 percent on small operations to 29.8 percent on large operations. The highest percentages of large operations used other fenced pasture or a barn or shed as primary kidding areas (36.7 and 29.8 percent, respectively).

c. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by **primary** kidding area and by herd size:

Percent Operations								
Primary Kidding Area	Herd Size (Number of Goats and Kids)							
	Small		Medium		Large		All Operations	
	(10–19)		(20–99)		(100 or More)			
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Individual kidding pen or jug	16.8	(1.7)	17.1	(1.4)	11.9	(1.6)	16.4	(1.0)
Barn or shed (covered without individual pens)	44.4	(2.5)	34.1	(1.9)	29.8	(2.0)	37.6	(1.4)
Special kidding pasture that allows increased observation and/or shelter	6.1	(1.2)	9.2	(1.2)	10.4	(1.5)	8.2	(0.8)
Other fenced pasture	23.7	(2.2)	29.9	(1.9)	36.7	(2.5)	28.2	(1.3)
Open range	4.2	(1.0)	6.1	(1.1)	7.0	(1.2)	5.5	(0.7)
Dry lot (pen which does not allow grazing)	4.8	(1.2)	3.2	(0.7)	4.2	(0.8)	3.9	(0.6)
Other	0.0	(0.0)	0.4	(0.3)	0.0	(0.0)	0.2	(0.2)
Total	100.0		100.0		100.0		100.0	

**For Operations with Kids Born from July 1, 2008, through June 30, 2009,
Percentage of Operations by Primary Kidding Area**



Primary kidding area differed by region. For example, a lower percentage of operations in the Northeast region used open range or other fenced pasture as primary kidding areas than operations in the West and Southeast regions. Compared with the West and Southeast regions, a higher percentage of operations in the Northeast region used barns or sheds or individual kidding pens as primary kidding areas.

d. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by **primary** kidding area and by region:

Percent Operations*						
Primary Kidding Area	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Individual kidding pen or jug	12.1	(1.4)	12.9	(1.4)	31.5	(2.5)
Barn or shed (covered without individual pens)	24.7	(2.2)	40.5	(2.2)	52.2	(2.6)
Special kidding pasture that allows increased observation and/or shelter	9.8	(1.5)	8.7	(1.2)	4.3	(1.1)
Other fenced pasture	40.1	(2.5)	28.8	(2.0)	7.5	(1.4)
Open range	6.5	(1.4)	6.4	(1.0)	1.7	(0.7)
Dry lot (pen which does not allow grazing)	6.4	(1.3)	2.5	(0.8)	2.8	(0.8)
Other	0.4	(0.4)	0.2	(0.2)	0.0	(0.0)
Total	100.0		100.0		100.0	

*Operations with 10 or more goats.

5. Kid management

On 80.8 percent of operations, newborn kids were normally nursed by mothers and bottle fed only when orphaned. On 15.3 percent of operations, newborn kids were normally fed using a combination of nursing and bottle feeding.

a. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by method normally used to feed newborn kids and by herd size:

Percent Operations										
Herd Size (Number of Goats and Kids)										
Method	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Nursed only*	75.0	(3.0)	83.1	(1.8)	83.2	(1.4)	80.9	(1.8)	80.8	(1.1)
Nursed and bottle fed	20.3	(2.9)	13.8	(1.7)	13.5	(1.3)	11.8	(1.8)	15.3	(1.0)
Bottle fed	4.7	(1.1)	3.1	(0.7)	3.3	(0.6)	7.3	(0.9)	3.9	(0.4)
Total	100.0		100.0		100.0		100.0		100.0	

*Bottle fed if kid orphaned.

In the Northeast region, newborn kids on 70.4 percent of operations were normally nursed by their mothers compared with newborn kids on 83.9 and 84.1 percent of operations in the West and Southeast regions, respectively. Compared with the West and Southeast regions, a higher percentage of operations in the Northeast region bottle fed kids.

b. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by method normally used to feed newborn kids and by region:

Percent Operations						
Method	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Nursed only*	83.9	(1.8)	84.1	(1.6)	70.4	(2.5)
Nursed and bottle fed	12.9	(1.8)	14.5	(1.5)	19.9	(2.3)
Bottle fed	3.2	(0.7)	1.4	(0.3)	9.7	(1.4)
Total	100.0		100.0		100.0	

*Bottle fed if kid orphaned.

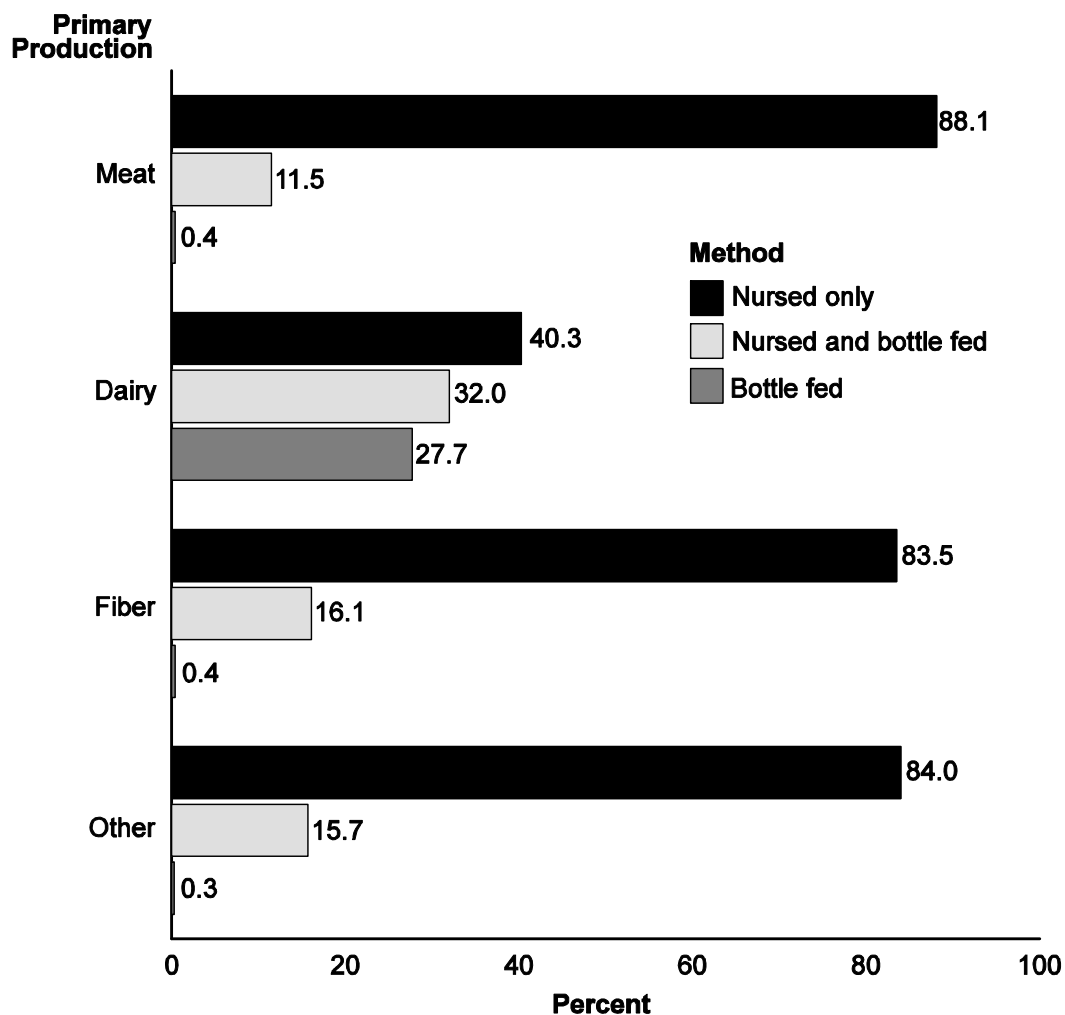
More than one of four dairy goat operations (27.7 percent) normally bottle fed kids compared with less than 0.5 percent of meat, fiber and “other” operations. Nursing was the most common method of feeding newborn kids on meat, fiber, and “other” operations.

c. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations by method normally used to feed newborn kids and by primary production:

Percent Operations								
Primary Production								
	Meat		Dairy		Fiber		Other	
Method	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Nursed only*	88.1	(1.2)	40.3	(3.5)	83.5	(7.2)	84.0	(2.4)
Nursed and bottle fed	11.5	(1.2)	32.0	(3.3)	16.1	(7.2)	15.7	(2.4)
Bottle fed	0.4	(0.2)	27.7	(3.0)	0.4	(0.3)	0.3	(0.2)
Total	100.0		100.0		100.0		100.0	

*Bottle fed if kid orphaned.

**For Operations with Kids Born from July 1, 2008, through June 30, 2009,
Percentage of Operations by Method Normally Used to Feed Newborn
Kids and by Primary Production**



For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), older does and their kids were usually never separated from the herd on 39.0 percent of operations and placed with the remainder of the herd following birth on 17.3 percent of operations. On almost one-fourth of operations (23.4 percent), older-doe/kid pairs were usually kept separate from other goats.

Yearling does and their kids were usually never separated from the herd on 36.7 percent of operations and placed with the remainder of the herd following birth on 15.4 percent of operations. On almost 3 of 10 operations (29.0 percent), yearling-doe/kid pairs were usually kept separate from other goats.

d. For operations on which newborn kids were nursed (either exclusively or in combination with bottle-feeding), percentage of operations by usual placement of doe/kid pairs following birth and by age of does:

Percent Operations ¹				
Age of Doe				
Placement	Yearling ²		Older ³	
	Percent	Std. Error	Percent	Std. Error
Kept separate from other goats	29.0	(1.3)	23.4	(1.2)
Placed with other doe/kid pairs	17.1	(1.1)	19.5	(1.2)
Placed with remainder of herd	15.4	(1.1)	17.3	(1.2)
Not separated; always with herd	36.7	(1.4)	39.0	(1.5)
Other	1.8	(0.4)	0.8	(0.3)
Total	100.0		100.0	

¹Operations with 10 or more goats.

²First kidding.

³Second kidding or greater.

The percentage of operations by usual placement of yearling-doe kid pairs did not differ across herd sizes.

e. For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), percentage of operations by usual placement of **yearling-doe***/kid pairs following birth and by herd size:

Percent Operations						
Herd Size (Number of Goats and Kids)						
Placement	Small (10–19)		Medium (20–99)		Large (100 or More)	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kept separate from other goats	29.5	(2.3)	29.7	(1.8)	23.6	(2.1)
Placed with other doe/kid pairs	16.1	(1.8)	18.0	(1.6)	16.2	(1.7)
Placed with remainder of herd	14.7	(1.9)	16.0	(1.6)	15.0	(2.1)
Not separated; always with herd	37.7	(2.5)	34.9	(2.0)	42.0	(2.5)
Other	2.0	(0.7)	1.4	(0.5)	3.2	(1.6)
Total	100.0		100.0		100.0	

*First kidding.

The percentage of operations that usually did not separate yearling-doe/kid pairs from the herd differed by region, ranging from 21.2 percent of operations in the Northeast region to 51.2 percent of operations in the West region.

f. For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), percentage of operations by usual placement of **yearling-doe**¹/kid pairs following birth and by region:

Percent Operations ²						
Placement	Region					
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kept separate from other goats	20.5	(1.9)	30.0	(2.0)	41.8	(2.9)
Placed with other doe/kid pairs	13.8	(1.7)	17.0	(1.7)	23.4	(2.4)
Placed with remainder of herd	13.0	(1.8)	18.6	(1.8)	11.7	(1.9)
Not separated; always with herd	51.2	(2.6)	32.4	(2.1)	21.2	(2.3)
Other	1.5	(0.6)	2.0	(0.6)	1.9	(0.8)
Total	100.0		100.0		100.0	

¹First kidding

²Operations with 10 or more goats.

g. For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), percentage of operations by usual placement of **yearling-doe**¹/kid pairs following birth and by primary production:

Percent Operations²								
Primary Production								
	Meat		Dairy		Fiber		Other	
Placement	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kept separate from other goats	27.8	(1.5)	41.8	(4.5)	38.1	(8.4)	27.2	(3.0)
Placed with other doe/kid pairs	17.2	(1.3)	15.5	(3.2)	11.7	(4.9)	18.1	(2.6)
Placed with remainder of herd	14.6	(1.3)	14.7	(3.6)	23.5	(8.7)	18.2	(2.8)
Not separated; always with herd	38.8	(1.7)	26.2	(4.1)	24.2	(6.8)	34.0	(3.3)
Other	1.6	(0.4)	1.8	(1.3)	2.5	(1.9)	2.5	(1.1)
Total	100.0		100.0		100.0		100.0	

¹First kidding

²Operations with 10 or more goats.

The percentage of operations by usual placement of older-doe/kid pairs did not differ across herd sizes.

h. For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), percentage of operations by usual placement of **older-doe***/kid pairs following birth and by herd size:

Percent Operations						
Herd Size (Number of Goats and Kids)						
Placement	Small (10–19)		Medium (20–99)		Large (100 or More)	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kept separate from other goats	22.7	(2.1)	24.4	(1.7)	21.1	(2.1)
Placed with other doe/kid pairs	17.6	(1.9)	21.4	(1.7)	17.4	(1.8)
Placed with remainder of herd	17.9	(2.1)	17.4	(1.7)	14.5	(2.1)
Not separated; always with herd	41.6	(2.6)	36.0	(2.1)	44.1	(2.6)
Other	0.2	(0.1)	0.8	(0.4)	2.9	(1.6)
Total	100.0		100.0		100.0	

*Second kidding or greater.

The percentage of operations that usually did not separate older-doe/kid pairs from the herd differed by region, ranging from 21.9 percent of operations in the Northeast region to 54.5 percent of operations in the West region.

i. For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), percentage of operations by usual placement of **older-doe**¹/kid pairs following birth and by region:

	Percent Operations ²					
	Region					
	West		Southeast		Northeast	
Placement	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kept separate from other goats	16.6	(1.8)	22.7	(1.9)	36.7	(2.8)
Placed with other doe/kid pairs	14.6	(1.7)	19.7	(1.8)	27.5	(2.6)
Placed with remainder of herd	12.8	(1.8)	22.2	(2.0)	13.6	(2.0)
Not separated; always with herd	54.5	(2.6)	34.9	(2.2)	21.9	(2.3)
Other	1.5	(0.7)	0.5	(0.4)	0.3	(0.2)
Total	100.0		100.0		100.0	

¹Second kidding or greater.

²Operations with 10 or more goats.

j. For operations on which newborn kids were nursed (either exclusively or in combination with bottle feeding), percentage of operations by usual placement of **older-doe**¹/kid pairs following birth and by primary production:

Percent Operations ²								
Primary Production								
	Meat		Dairy		Fiber		Other	
Placement	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Kept separate from other goats	21.9	(1.4)	36.1	(4.5)	41.4	(8.6)	22.4	(2.9)
Placed with other doe/kid pairs	19.6	(1.4)	20.2	(3.8)	11.3	(5.0)	19.8	(2.8)
Placed with remainder of herd	16.7	(1.4)	16.6	(3.8)	21.8	(8.9)	19.4	(2.9)
Not separated; always with herd	40.8	(1.8)	27.1	(4.3)	22.9	(6.9)	38.1	(3.5)
Other	1.0	(0.4)	0.0	(--)	2.6	(2.0)	0.3	(0.2)
Total	100.0		100.0		100.0		100.0	

¹Second kidding or greater.

²Operations with 10 or more goats.

More than 4 of 10 operations provided creep or starter feed.

k. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations that provided creep or starter feed, by herd size:

Percent Operations									
Herd Size (Number of Goats and Kids)									
Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
58.2	(3.5)	32.0	(2.3)	38.7	(2.0)	39.7	(2.3)	42.0	(1.4)

A higher percentage of dairy goat operations provided creep or starter feed to kids compared with meat or fiber goat operations.

l. For operations with kids born from July 1, 2008, through June 30, 2009, percentage of operations that provided creep or starter feed, by primary production:

Percent Operations							
Primary Production							
Meat		Dairy		Fiber		Other	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
39.8	(1.8)	59.0	(3.4)	40.2	(8.1)	38.9	(3.1)

Overall, 50.7 percent of operations that bottle fed newborn kids heat treated the colostrum; 42.9 percent operations pasteurized milk fed to newborns. The large standard errors do not allow for the differentiation of feeding practices by size of operation.

m. For operations with kids born from July 1, 2008, through June 30, 2009, and that bottle fed newborn kids, percentage of operations by feeding practice for preweaned kids and by herd size:

Percent Operations									
Herd Size (Number of Goats and Kids)									
Practice	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Std. Error
Heat-treat colostrum before feeding	50.5	(12.5)	45.5	(12.0)	59.4	(8.8)	39.4	(6.7)	50.7 (5.6)
Pasteurize milk before feeding	50.5	(12.5)	39.5	(11.8)	43.7	(8.8)	29.4	(6.6)	42.9 (5.6)

Only operations with a primary production of meat or milk pasteurized the milk provided to bottle-fed newborns. A higher percentage of dairy goat operations (46.5 percent) pasteurized the milk for bottle-fed newborns compared with meat goat operations (10.9 percent).

n. For operations with kids born from July 1, 2008, through June 30, 2009, and that bottle fed newborn kids, percentage of operations by feeding practice for preweaned kids and by primary production:

Percent Operations								
Primary Production								
Feeding Practice	Meat		Dairy		Fiber		Other	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Heat-treat colostrum before feeding	47.1	(18.3)	50.9	(6.0)	0.0	(--)	55.1	(34.0)
Pasteurize milk before feeding	10.9	(8.7)	46.5	(6.0)	0.0	(--)	0.0	(--)

6. Age of kids at weaning

The average weaning age on large operations was higher than on small operations for both buck and doe kids.

a. Operation average age of kids at weaning during the previous 12 months, by herd size:

Operation Average Age (Weeks)							
Herd Size (Number of Goats and Kids)							
	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations
	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Std. Error
Buck kids	13.4	(0.3)	14.3	(0.3)	16.2	(0.4)	14.1 (0.2)
Doe kids	13.7	(0.3)	14.5	(0.3)	16.5	(0.4)	14.4 (0.2)

Operations in the West region weaned both buck and doe kids at an older age than operations in the Southeast or Northeast regions.

b. Operation average age of kids at weaning during the previous 12 months, by region:

Operation Average Age (Weeks)						
Region						
	West		Southeast		Northeast	
	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
Buck kids	16.1	(0.4)	13.9	(0.3)	11.5	(0.3)
Doe kids	16.5	(0.4)	14.3	(0.3)	11.6	(0.3)

*Operations with 10 or more goats.

c. Operation average age of kids at weaning during the previous 12 months, by primary production:

Operation Average Age (Weeks)								
Primary Production								
	Meat		Dairy		Fiber		Other	
	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
Buck kids	14.8	(0.2)	11.3	(0.4)	14.9	(1.7)	13.0	(0.6)
Doe kids	15.2	(0.2)	11.6	(0.4)	15.0	(1.6)	12.9	(0.5)

*Operations with 10 or more goats.

E. Milk Production **Note:** Except for tables 1.a, 1.b, and 1.c, all tables in this section represent only operations that had milked any does during the previous 12 months.

1. Management practices

One of 10 goat operations in the United States had a primary production focus of dairy; however, some operations that were not focused primarily on dairy also milked does. Overall, 13.5 percent of operations had milked any does during the previous 12 months.

a. Percentage of all operations (and percentage of does milked on these operations) that milked any does during the previous 12 months, by herd size:

Percent												
Herd Size (Number of Goats and Kids)												
	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations		Only Operations with 10 or More	
	Std. Pct.	Error	Std. Pct.	Error	Std. Pct.	Error	Std. Pct.	Error	Std. Pct.	Error	Std. Pct.	Error
Percent operations	10.3	(1.2)	17.2	(1.5)	14.9	(1.2)	19.9	(1.6)	13.5	(0.7)	16.3	(0.8)
Percent does	67.5	(10.4)	45.1	(5.0)	47.2	(4.7)	79.7	(4.0)	65.5	(3.0)	65.3	(3.2)

In the Northeast region, a higher percentage of operations (23.2 percent) had milked any does during the previous 12 months compared with operations in the West and Southeast regions (12.4 and 7.9 percent, respectively).

b. Percentage of all operations (and percentage of does milked on these operations) that had milked any does during the previous 12 months, by region:

Percent						
Region						
	West		Southeast		Northeast	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Percent operations	12.4	(1.3)	7.9	(0.9)	23.2	(1.7)
Percent does	63.4	(6.3)	46.1	(7.7)	73.3	(3.2)

While a higher percentage of dairy operations (83.1 percent) milked does than other production types, 7.8 percent of meat operations and 7.9 percent of fiber operations milked does. While few operations in the “other” production category milked does (3.7 percent), the operations that did milk does milked 61.6 percent of their does. Operations with a primary production of dairy milked 84.9 percent of their does.

c. Percentage of all operations (and percentage of does milked on these operations) that had milked any does during the previous 12 months, by primary production:

Percent								
Primary Production								
	Meat		Dairy		Fiber		Other	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Percent operations	7.8	(0.9)	83.1	(2.8)	7.9	(3.9)	3.7	(0.7)
Percent does	17.6	(3.3)	84.9	(2.3)	18.5	(4.7)	61.6	(17.6)

There are three methods generally used to milk dairy goats: 1) does are milked by hand and the milk is collected in a bucket; 2) does are milked by electric machines (usually portable) and the milk is collected in a bucket; and 3) does are milked by machine in a milking parlor equipped with stationary milking units, and the milk is collected directly into a pipe system that carries it to a bulk tank.

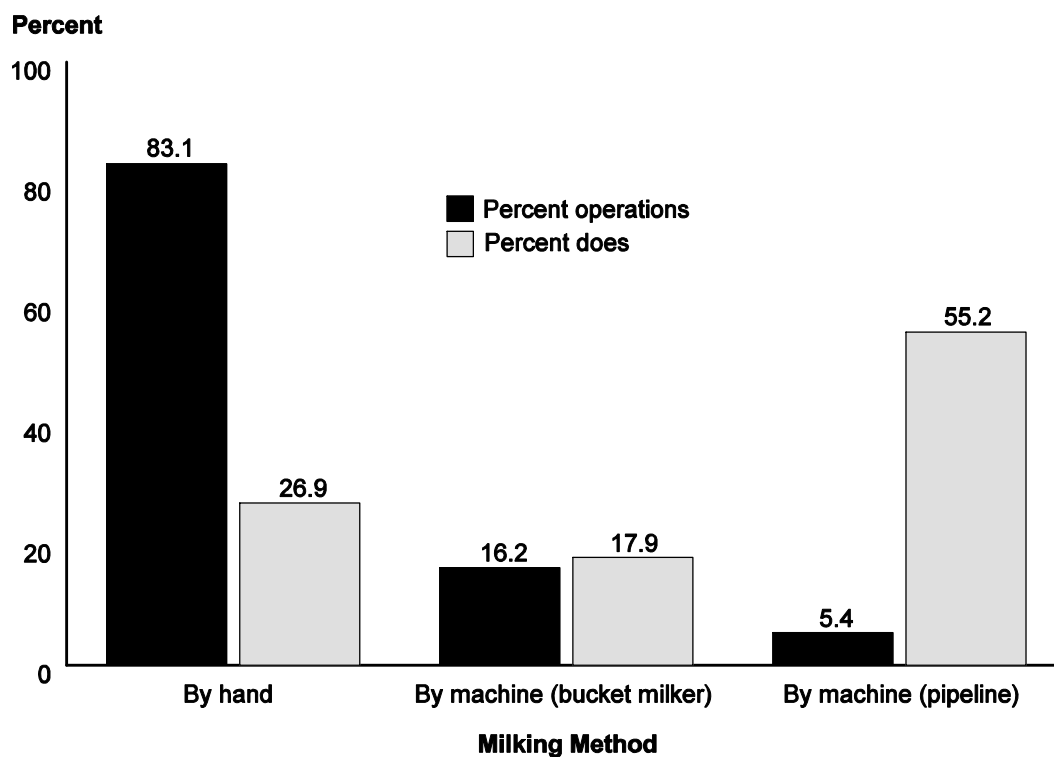
The majority of operations that milked does (83.1 percent) did so by hand. However, the majority of does milked (55.2 percent) were milked in a parlor.

d. Percentage of operations (and percentage of does milked on these operations), by milking method:

Milking Method	Percent Operations*	Std. Error	Percent Does	Std. Error
By hand	83.1	(1.9)	26.9	(3.2)
By machine (bucket milker)	16.2	(2.0)	17.9	(3.0)
By machine (pipeline)	5.4	(0.9)	55.2	(4.8)
Total			100.0	

*Operations with 10 or more goats.

Percentage of Operations* (and Percentage of Does Milked on These Operations), by Milking Method



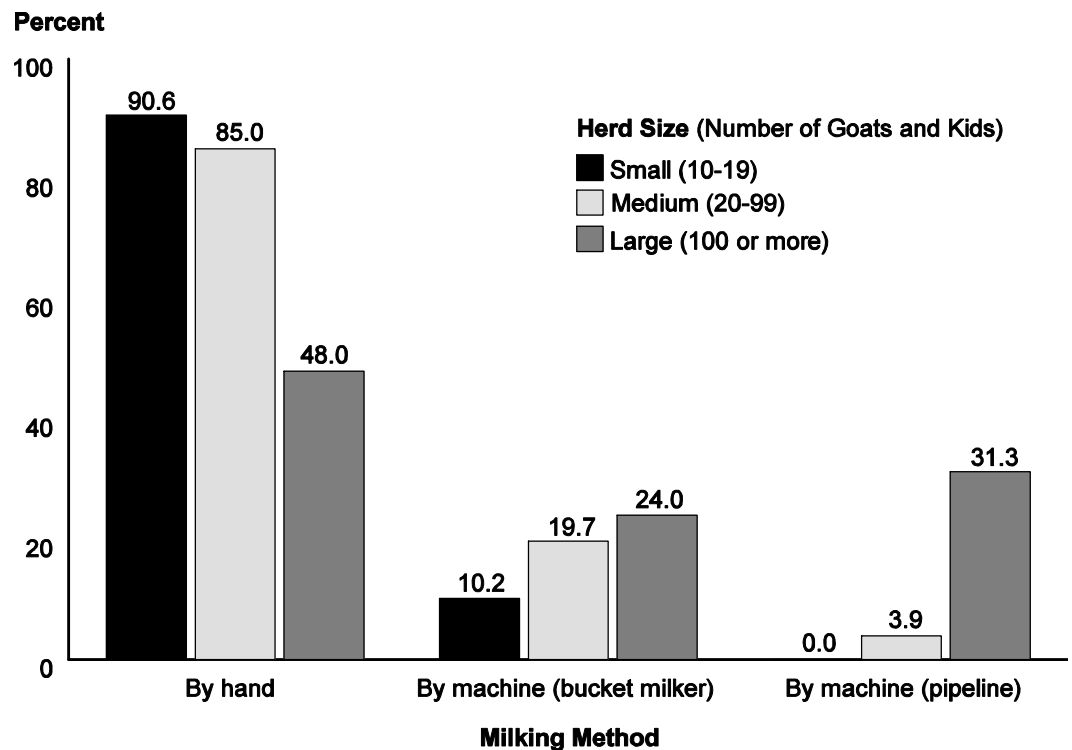
*Operations with 10 or more goats.

The majority of small operations (90.6 percent) and medium operations (85.0 percent) milked does by hand. About one-third of large operations (31.3 percent) milked does by machine in a parlor.

e. Percentage of operations by milking method and by herd size:

Percent Operations						
Milking Method	Herd Size (Number of Goats and Kids)					
	Small (10–19)		Medium (20–99)		Large (100 or More)	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
By hand	90.6	(2.8)	85.0	(2.9)	48.0	(4.8)
By machine (bucket milker)	10.2	(2.8)	19.7	(3.2)	24.0	(4.9)
By machine (pipeline)	0.0	(--)	3.9	(1.7)	31.3	(4.0)

Percentage of Operations by Milking Method and by Herd Size



Almost two-thirds of operations that milked does (65.7 percent) did so twice a day, and slightly more than one-fourth of operations (27.5 percent) milked once a day. Nearly 8 of 10 large operations (79.7 percent) milked 2 or more times per day, while 2 of 3 small and medium operations milked 2 or 3 times per day (66.9 and 64.9 percent, respectively).

f. Percentage of operations by usual frequency of milking does and by herd size:

Percent Operations								
Herd Size (Number of Goats and Kids)								
Milking Frequency	Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Less than once a day	2.8	(1.6)	7.1	(2.6)	4.9	(2.2)	5.1	(1.4)
Once a day	30.3	(4.5)	28.0	(4.0)	15.4	(4.4)	27.5	(2.7)
Twice a day	64.1	(4.7)	64.1	(4.2)	78.5	(4.6)	65.7	(2.8)
More than twice a day	2.8	(1.7)	0.8	(0.8)	1.2	(0.7)	1.7	(0.8)
Total	100.0		100.0		100.0		100.0	

2. Milk marketing

Doe milk can be fed to goat kids or other livestock, used to make cheese or yogurt, or kept for home consumption. The highest percentage of operations that milked any does during the previous 12 months (74.4 percent) fed doe milk to goat kids; 66.9 percent of operations kept some milk for home consumption. A higher percentage of large operations (56.9 percent) sold or traded goat milk compared with smaller sized operations.

a. Percentage of operations by use of milk and by herd size:

Percent Operations												
Herd Size (Number of Goats and Kids)												
	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations		Only Operations with 10 or More	
Milk Use	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Fed to goat kids	73.3	(5.4)	67.1	(4.6)	80.6	(3.5)	80.8	(3.3)	74.4	(2.5)	75.0	(2.6)
Fed to other livestock on the operation	33.3	(5.8)	40.7	(4.7)	33.1	(4.0)	28.0	(5.0)	34.9	(2.7)	35.7	(2.8)
Made cheese or yogurt on the farm	46.4	(6.2)	39.6	(4.6)	39.5	(4.2)	23.6	(3.6)	40.8	(2.8)	37.7	(2.8)
Home consumption	65.2	(5.8)	73.6	(4.6)	64.3	(4.2)	61.0	(4.5)	66.9	(2.7)	67.8	(2.8)
Sold or traded as goat milk or other goat milk products	12.3	(3.3)	19.3	(3.8)	25.2	(3.7)	56.9	(4.7)	21.4	(2.0)	26.3	(2.4)

Almost three-fourths of large operations (72.6 percent) sold or traded doe milk to be made into cheese. A lower percentage of large operations than medium operations sold or traded milk for consumption by pets or livestock.

b. For operations that sold or traded any milk or milk products, percentage of operations by final product use and by herd size:

Percent Operations										
Herd Size (Number of Goats and Kids)										
Final Product or Use	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Milk to be made into cheese	10.3	(7.0)	29.7	(10.1)	23.5	(7.3)	72.6	(6.7)	32.2	(4.2)
Milk for human consumption	48.6	(13.4)	41.7	(10.6)	45.1	(8.4)	28.8	(5.2)	41.8	(5.0)
Milk for pet consumption	45.1	(13.3)	58.9	(10.6)	61.4	(7.9)	17.5	(5.4)	48.8	(5.0)
Milk for livestock consumption	30.4	(12.8)	38.1	(10.4)	58.0	(8.3)	14.1	(5.3)	38.9	(4.9)
Cheese	14.7	(8.0)	31.9	(10.3)	43.1	(8.4)	23.7	(5.5)	30.7	(4.6)
Other products or to be made into other products (e.g., candy, yogurt, ice cream, soap, etc.)	47.6	(13.4)	45.3	(10.9)	34.4	(8.0)	15.4	(5.3)	36.0	(4.9)

More than 1 of 10 operations that sold or traded milk or milk products received a premium for high-protein, out-of-season milk, or low bacteria counts (17.5, 13.3, and 11.0 percent of operations, respectively).

c. For operations that sold or traded any milk or milk products, percentage of operations that were paid a premium for the following milk characteristics:

Milk Characteristic	Percent Operations*	Std. Error
High protein	17.5	(2.2)
Low bacteria counts	11.0	(1.9)
Low somatic cell count	8.6	(1.8)
Out-of-season milk	13.3	(1.9)
Other	7.0	(1.6)

*Operations with 10 or more goats.

All very small operations that sold or traded milk or milk products (100.0 percent) did so directly to the public. Approximately 4 of 10 large operations (39.8 percent) sold or traded directly to the public. Approximately 7 of 10 large operations (70.7 percent) sold or traded to a wholesaler, dealer, or processor compared with about 1 of 10 medium operations and fewer than 1 of 10 small operations (11.4 and 5.4 percent, respectively).

d. For operations that sold or traded any milk or milk products, percentage of operations by method of sale and by herd size:

Percent Operations										
Herd Size (Number of Goats and Kids)										
Method of Sale	Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations	
	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Directly to the public (including Internet sales, farmer's markets, etc.)	100.0	(0.0)	94.6	(5.1)	92.1	(3.7)	39.8	(6.5)	82.2	(2.5)
To retail establishments, restaurants, or other commercial sales	0.0	(--)	6.4	(4.3)	14.0	(5.8)	10.6	(3.7)	9.4	(2.7)
To a cooperative or as a part of a cooperative	6.5	(6.2)	0.0	(--)	3.6	(3.4)	14.0	(3.3)	5.6	(1.8)
To a wholesaler, dealer, or processor (e.g., cheese plant)	0.0	(--)	5.4	(5.1)	11.4	(4.8)	70.7	(6.5)	21.6	(3.0)
Other	0.0	(--)	5.1	(4.9)	3.4	(2.3)	1.7	(1.1)	2.9	(1.4)

3. Milk pasteurization

During the previous 12 months, slightly more than one-fifth of operations (22.0 percent) that sold or traded goat milk routinely pasteurized (on farm) milk intended for human consumption.

a. For operations that sold or traded any milk or milk products, percentage of operations that, during the previous 12 months, routinely pasteurized (on farm) milk intended for human consumption:

Percent Operations	Standard Error
22.0	(7.0)

During the previous 12 months, almost one-fourth of operations (24.3 percent) marketed unpasteurized milk intended for human consumption.

b. For operations that sold or traded any milk or milk products, percentage of operations that had, during the previous 12 months, marketed any unpasteurized milk or milk products intended for human consumption:

Percent Operations	Standard Error
24.3	(4.2)

c. Percentage of operations on which the operator, family members, or employees consumed unpasteurized goat milk or milk products produced on the operation:

Percent Operations	Standard Error
53.6	(2.9)

F. Fiber Production Fiber production from goats in the United States comprises primarily mohair from Angora goats and cashmere. Overall, only 1.9 percent of U.S. goat operations with 10 or more goats had a primary production focus of fiber (see table a, p 12). A few additional goat operations also produced fiber, resulting in 3.2 percent of all goat operations shearing, clipping, or combing some goats during the previous 12 months.

1. Shearing management

Almost one-tenth of large operations (9.5 percent) had shorn, clipped, or combed at least one goat during the previous 12 months.

a. Percentage of operations that had sheared, clipped, or combed any goats for fiber during the previous 12 months, by herd size:

Percent Operations											
Herd Size (Number of Goats and Kids)											
Very Small (Fewer than 10)		Small (10–19)		Medium (20–99)		Large (100 or More)		All Operations		Only Operations with 10 or More	
Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
3.3	(0.8)	2.1	(0.5)	2.5	(0.4)	9.5	(2.0)	3.2	(0.4)	3.0	(0.4)

A lower percentage of operations in the Southeast region (1.4 percent) had shorn, clipped, or combed at least one goat compared with operations in the West region (5.4 percent), which probably reflects the higher concentration of mohair producers in the West region.

b. Percentage of operations that had sheared, clipped, or combed any goats for fiber during the previous 12 months, by region:

Percent Operations					
Region					
West		Southeast		Northeast	
Percent	Std. Error	Percent	Std. Error	Percent	Std. Error
5.4	(0.8)	1.4	(0.5)	3.5	(0.9)

Employees sheared goats on 53.9 percent of operations. About one-fourth of operations used a contracted crew (28.7 percent) or a hired individual (27.3 percent). Some operations used more than one type of shearer.

c. For operations that sheared, clipped, or combed any goats for fiber during the previous 12 months, percentage of operations by type of shearer used on the operation:

Shearer	Percent Operations*	Std. Error
Employees (including owner)	53.9	(6.2)
Contracted crew	28.7	(5.3)
Hired individual	27.3	(5.9)
Other	0.4	(0.3)

*Operations with 10 or more goats.

Most operations (52.8 percent) did not clean and disinfect clippers between goats. One-fourth of operations washed (with soap and water) and disinfected clippers between goats. Most “other” treatments included changing blades and spraying lubricant/disinfectant.

d. For operations that sheared, clipped, or combed any goats for fiber during the previous 12 months, percentage of operations by usual treatment of shears, clippers, or combs between goats:

Treatment	Percent Operations*	Std. Error
Wash with soap and water and disinfect	25.3	(5.3)
Wash only using soap and water	14.8	(5.1)
No cleaning or disinfecting	52.8	(6.3)
Other	7.1	(3.5)
Total	100.0	

*Operations with 10 or more goats.

2. Fiber production and marketing

More than 9 of 10 **goats** that were shorn during the previous 12 months (91.9 percent), produced mohair fiber, while fewer than 7 of 10 **operations** (66.4 percent) were mohair producers.

a. For operations that sheared, clipped, or combed any goats for fiber during the previous 12 months, percentage of operations and percentage of goats by fiber type produced:

Fiber Type	Percent Operations	Std. Error	Percent Goats	Std. Error
Cashmere	19.4	(5.6)	5.2	(2.3)
Mohair	66.4	(7.3)	91.9	(2.6)
Pygora	11.9	(3.4)	1.9	(0.7)
Other	15.8	(7.0)	1.0	(0.5)
Total			100.0	

An average of 8.4 pounds of mohair fiber were produced per goat clipped compared with 1.6 pounds per goat for cashmere and 2.0 pounds for pygora.

b. For operations that sheared, clipped, or combed any goats for fiber during the previous 12 months, average pounds of fiber clipped per goat, by type of fiber produced:

Average Pounds per Goat									
Fiber Type									
Cashmere		Mohair		Pygora		Other		All Operations	
Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error	Avg.	Std. Error
0.3	(0.0)	8.4	(0.6)	2.0	(0.2)	3.2	(1.0)	8.1	(0.6)

More than one-half of operations with 10 or more goats that sheared, clipped, or combed goats (58.5 percent) sold or traded the fiber. On average, 87.8 percent of fiber was sold or traded.

c. For operations that sheared, clipped, or combed any goats for fiber during the previous 12 months, percentage of operations that sold or traded any fiber and percentage of fiber sold or traded:

Percent				
Herd Size (Number of Goats and Kids)				
	All Operations		Only Operations with 10 or More	
	Percent	Std. Error	Percent	Std. Error
Percent operations	35.1	(5.4)	58.5	(6.3)
Percent fiber sold or traded*	87.6	(6.0)	87.8	(6.0)

*Pounds fiber sold or traded / total pounds sheared/clipped.

Most of the fiber was sold to commercial warehouses (55.8 percent), and about one-fifth (22.3 percent) was sold or traded to cooperative pools. However, the highest percentage of operations (54.8 percent) sold or traded at least some fiber to private, local individuals. Almost one-fifth of operations that produced fiber sold or traded some of it via the Internet, accounting for less than 1 percent of fiber sold.

d. For operations that sold or traded fiber during the previous 12 months, percentage of operations (and percentage of fiber sold), by marketing arrangement:

Marketing Arrangement	Percent Operations	Std. Error	Percent Fiber Sold	Std. Error
Private, locally	54.8	(7.5)	7.8	(4.6)
Internet	19.4	(5.5)	0.9	(0.5)
Direct sales to mill buyer	5.0	(2.1)	1.4	(1.1)
Cooperative pools	6.3	(2.6)	22.3	(10.9)
Commercial warehouses	28.3	(6.5)	55.8	(10.8)
Other	11.9	(3.9)	11.8	(8.6)
Total			100.0	

Over one-fourth of the operations (27.1 percent) usually tested the fiber for quality prior to sale.

e. For operations that sold or traded fiber during the previous 12 months, percentage of operations that usually tested fiber for quality prior to sale:

Percent Operations*	Standard Error
27.1	(5.9)

*Operations with 10 or more goats.

f. For operations that usually tested fiber for quality prior to sale, percentage of operations by fiber characteristics measured:

Fiber Characteristic	Percent Operations*	Std. Error
Vegetable matter	68.3	(12.8)
Average fiber diameter	88.4	(6.4)
Average fiber length	76.7	(12.7)
Clean yield	77.7	(12.5)
Fiber medullation or kemp percentage	86.9	(7.1)
Other	9.9	(6.4)

*Operations with 10 or more goats.

Section II: Methodology

A. Needs Assessment

NAHMS develops study objectives by exploring existing literature and contacting industry members about their informational needs and priorities during a needs assessment phase. The needs assessment for the NAHMS Goat 2009 study collected information from U.S. goat producers and other goat specialists about what they perceived to be the most important goat health and productivity issues. A driving force of the needs assessment was the desire of NAHMS to receive as much input as possible from a variety of producers, industry experts and representatives, veterinarians, extension specialists, universities, and industry organizations. Information was collected through a Needs Assessment Survey, and top issues were prioritized by teleconferences with representatives of the dairy, fiber, and meat segments of the goat industry, along with extension agents and other university affiliates.

The Needs Assessment Survey was designed to ascertain the top-three management issues; diseases/disorders; and producer incentives from producers, veterinarians, extension personnel, university researchers, and allied industry groups. The survey, created in SurveyMonkey, was available online from October 2007 to February 2008 and was promoted via electronic newsletters, magazines, and Web sites. Organizations promoting the study included the American Dairy Goat Association, American Meat Goat Association, individual State goat associations, and the newly formed National Goat Federation. Email messages were also sent to State and Federal personnel asking for input and identifying the online site. A total of 1,253 people responded to the survey questionnaire and, of those, 1,022 completed the entire survey. Meat goat producers accounted for 32.7 percent of the respondents, while dairy goat producers accounted for 32.0 percent. Another 9.9 percent were both meat and dairy producers, and 2.1 percent were fiber producers. Thus, producers accounted for 76.7 percent of survey respondents. The remaining survey participants were university researchers or extension agents, veterinarians, State or Federal personnel, associates of an allied industry such as pharmaceutical or nutrition companies, or otherwise identified as none of the above.

Once the most important issues were identified, the study objectives were created by prioritizing the needs during discussions with producers, veterinarians, university extension agents, and government personnel. These discussions culminated in the study objectives:

- Determine producer awareness of Veterinary Services program diseases and describe management and biosecurity practices important for the control of infectious diseases (including brucellosis, scrapie, caprine arthritis encephalitis (CAE), Johne's disease, and caseous lymphadenitis). Provide a baseline description of animal health, nutrition, and management practices in the U.S. goat industry.

- Estimate the prevalence of
 - *Mycobacterium paratuberculosis* (Johne's disease) infection
 - Internal parasitism.
- Characterize contagious ecthyma (sore mouth) in U.S. goats. Determine producer awareness of zoonotic potential and practices to prevent sore mouth transmission, and assess producer interest in an improved vaccine for sore mouth.

B. Sampling and Estimation

1. State selection

The preliminary selection of States to be included in the study was done March through May 2008, using the National Agricultural Statistics Service (NASS) 2002 Census of Agriculture and the February 1, 2008, "Sheep and Goat" report. A goal for NAHMS national studies is to include States that account for at least 70 percent of both animals and producer population in the United States. The initial review of States identified 21 major States representing 82.2 percent of the U.S. January 1 goat inventory and 75.5 percent of the goat operations. The States were Alabama, California, Colorado, Florida, Georgia, Indiana, Iowa, Kentucky, Michigan, Missouri, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Virginia, Washington, and Wisconsin.

A memo identifying these 21 States was provided in June 2008 to the USDA–APHIS–VS CEAH Director and, in turn, the VS Regional Directors. Each Regional Director sought input from the respective States about being included or excluded from the study. In December 2008, another memo showing predicted workload was sent to the VS Regional Directors. The 21 States were included in the study. In April 2009, a memo was sent to the field sharing the decision that no VS field force would be available for the study.

2. Operation selection

The list sampling frame was provided by NASS. Within each State a stratified random sample was selected. The size stratum was the number of goats and kids for each operation on the list sampling frame at the time of sample selection. NASS selected a sample of goat producers in each State. Among producers on the list frame with fewer than 10 goats, 2,000 operations were selected for Phase Ia. For operations on the list frame with 10 or more goats, a total of 3,501 operations were selected for contact during Phase Ib.

Operations in the sample selected for Phase Ia (those with fewer than 10 goats) were contacted by mail, with telephone followup. Operations with 10 or more goats that participated in the Phase Ib personal interview were contacted by the NASS enumerator.

3. Population inferences

a. Phases Ia and Ib: General Goat Management Reports

Inferences cover the population of goat producers with at least 1 goat or kid in the 21 participating States. As of December 31, 2007 (2007 Census of Agriculture), these States accounted for 82.2 percent of all goats (2,580,616 head) and 75.5 percent of operations (109,116) with goats in the United States. (See Appendix II for respective data on individual States.) All respondent data were statistically weighted to reflect the population from which they were selected. The inverse of the probability of selection for each operation was the initial selection weight. This selection weight was adjusted for nonresponse within each State and size group to allow for inferences back to the original population from which the sample was selected.

C. Data Collection 1. Data collectors and data collection period

a. Phase I: General Goat Management Report

From July 1 to 30, 2009, NASS enumerators administered the General Goat Management Report questionnaire. For producers with fewer than 10 goats, the telephone interview took approximately 10 minutes. For producers with 10 or more goats, the in-person interview took approximately 1 hour.

D. Data Analysis 1. Phase I: Validation—General Goat Management Report

Telephone interviews were conducted via computer-assisted telephone interview software at a NASS office. For the in-person administered questionnaire, initial data entry and validation for the General Goat Management Report were performed in the individual NASS State offices. Data were entered into a SAS data set. NAHMS national staff performed additional data validation on the entire data set after data from all States were combined.

E. Sample Evaluation

The purpose of this section is to provide various performance measurement parameters. Historically, the term “response rate” was used as a catchall parameter, but there are many ways to define and calculate response rates. Therefore, the following table presents an evaluation based upon a number of response measurement parameters, which are defined with an x in categories that contribute to the measurement.

1. Phase Ia: General Goat Management Report—fewer than 10 goats

A total of 2,000 operations were selected for the survey. Of these operations, 1,591 (79.5 percent) were contacted. There were 1,429 operations that provided usable inventory information (71.5 percent of the total selected and 89.8 percent of those contacted). Of these, 649 operations (32.5 percent of the total sample) provided “complete” information for the questionnaire. None of these operations, regardless of reported number of head, was eligible to participate in Phase II of the study.

Response Category	Number Operations	Percent Operations	Measurement Parameter		
			Contacts	Usable ¹	Complete ²
Survey complete	649	32.5	x	x	x
No goats on July 1, 2009	780	39.0	x	x	
Out of business	0	0.0	x	x	
Out of scope	0	0.0			
Refusal of GGMR	162	8.1	x		
Office hold (NASS elected not to contact)	1	0.0			
Inaccessible	408	20.4			
Total	2,000	100.0	1,591	1,429	649
Percent of total operations			79.5	71.5	32.5
Percent of total operations weighted ³			78.9	70.6	30.9

¹Useable operation—respondent provided answers to inventory questions for the operation (either zero or positive number on hand).

²Survey complete operation—respondent provided answers to all or nearly all questions.

³Weighted response—the rate was calculated using the initial selection weights.

2. Phase Ib: General Goat Management Report—10 or more goats

A total of 3,501 operations were selected for the survey. Of these operations, 3,189 (91.1 percent) were contacted. A total of 2,873 operations provided usable inventory information (82.1 percent of the total selected and 90.1 percent of those contacted). In addition, 1,835 operations (52.4 percent) provided “complete” information for the questionnaire. Of 1,835 operations that provided complete information, 1,438 (78.4 percent) planned to complete the mail-in questionnaire.

Response Category	Number Operations	Percent Operations	Measurement Parameter		
			Contacts	Usable ¹	Complete ²
Survey complete and plan 2 nd questionnaire	1,438	41.1	x	x	x
Survey complete, do not plan 2 nd questionnaire	397	11.3	x	x	x
No goats on July 1, 2007	797	22.8	x	x	
Out of business	241	6.9	x	x	
Out of scope	9	0.3			
Refusal of GGMR	316	9.0	x		
Office hold (NASS elected not to contact)	19	0.5			
Inaccessible	284	8.1			
Total	3,501	100.0	3,189	2,873	1,835
Percent of total operations			91.1	82.1	52.4
Percent of total operations weighted ⁴			91.7	84.1	50.8

¹Useable operation—respondent provided answers to inventory questions for the operation (either zero or positive number on hand).

²Survey complete operation—respondent provided answers to all or nearly all questions.

³Weighted response—the rate was calculated using the initial selection weights.

Appendix I: Sample Profile

A. Responding Operations

1. Number of responding operations, by herd size

	Phase Ia: General Goat Management Report—fewer than 10 goats	Phase Ib: General Goat Management Report—10 or more goats
Herd Size (Number of Goats and Kids)	Number of Responding Operations	
Fewer than 10	649	
10 to 19		532
20 to 99		739
100 or more		564
Total	649	1,835

2. Number of responding operations, by region

	Phase Ia: General Goat Management Report—fewer than 10 goats	Phase Ib: General Goat Management Report—10 or more goats
Region	Number of Responding Operations	
West	169	594
Southeast	238	728
Northeast	242	513
Total	649	1,835

3. Number of responding operations, by primary production

	Phase Ia: General Goat Management Report—fewer than 10 goats	Phase Ib: General Goat Management Report—10 or more goats
Primary Production	Number of Responding Operations	
Meat	103	1,149
Dairy	91	267
Fiber	21	70
Other	434	349
Total	649	1,835

Appendix II: U.S. Goat Population and Farms

Note: The eastern halves of Oklahoma and Texas included the following counties:

Oklahoma: Adair, Bryan, Cherokee, Choctaw, Coal, Craig, Creek, Delaware, Haskell, Hughes, Johnston, Latimer, Le Flore, Lincoln, Marshall, Mayes, McCurtain, McIntosh, Muskogee, Nowata, Okfuskee, Okmulgee, Osage, Ottawa, Pawnee, Pittsburg, Pontotoc, Pottawatomie, Pushmataha, Rogers, Sequoyah, Tulsa, Wagoner, Washington

Texas: Anderson, Angelina, Atascosa, Austin, Bastrop, Bee, Bowie, Brazoria, Brazos, Brooks, Burleson, Cameron, Cass, Cherokee, Collin, Colorado, Dallas, De Witt, Duval, Ellis, Fannin, Franklin, Galveston, Gonzales, Grayson, Gregg, Grimes, Hall, Hardin, Harris, Henderson, Hidalgo, Hopkins, Houston, Hunt, Jackson, Jasper, Jefferson, Jim Wells, Karnes, Kaufman, Kenedy, Kleberg, Lamar, Lavaca, Lee, Leon, Liberty, Limestone, Live Oak, Madison, Matagorda, Milam, Montgomery, Morris, Nacogdoches, Navarro, Nueces, Orange, Panola, Rains, Red River, Refugio, Robertson, Rusk, San Jacinto, Shelby, Smith, Starr, Titus, Tyler, Upshur, Van Zandt, Victoria, Walker, Waller, Washington, Wilson, Wood

A. All Goats

Region	State	Number of Goats*		Number of Farms	
		Goats on farms with 1 or more head	Goats on farms with 1–9 head	Farms with 1 or more head	Farms with 1–9 head
West	CA	130,823	10,272	4,985	2,894
	CO	48,978	5,732	2,720	1,746
	OK (west)	51,410	3,545	2,165	968
	OR	38,111	6,981	3,127	2,067
	TX (west)	998,833	21,758	17,369	5,200
	WA	32,840	7,269	3,143	2,131
	Total	1,300,995	55,557	33,509	15,006
Southeast	AL	80,436	7,017	4,120	1,528
	FL	57,696	8,304	4,040	2,124
	GA	83,976	7,973	4,283	1,880
	KY	98,166	10,003	5,298	2,497
	NC	98,356	10,279	5,589	2,411
	OK (east)	73,893	6,316	3,551	1,601
	TN	130,968	13,953	6,828	3,295
	TX (east)	141,129	17,476	8,997	4,487
	VA	63,091	8,042	3,934	2,113
	Total	827,711	89,363	46,640	21,936
Northeast	IN	47,090	7,543	3,385	1,971
	IA	55,950	4,412	2,257	1,166
	MI	27,841	7,962	3,186	2,398
	MO	96,449	8,421	4,476	2,188
	NY	39,920	5,831	2,707	1,748
	OH	69,505	10,935	4,910	3,166
	PA	59,214	10,722	4,844	3,237
	WI	55,941	7,428	3,202	2,378
	Total	451,910	63,254	28,967	18,252
Total (21 States)		2,580,616	208,174	109,116	55,194
Percent of U.S.		82.2	73.2	75.5	72.9
Total U.S. (50 States)		3,140,529	284,477	144,466	75,695

*Source: NASS 2007 Census of Agriculture.

B. Milk Goats

Region	State	Number of Milk Goats*		Number of Farms	
		Goats on farms with 1 or more head	Goats on farms with 1–9 head	Farms with 1 or more head	Farms with 1–9 head
West	CA	39,198	3,333	1,402	914
	CO	7,713	1,815	783	571
	OK (west)	2,735	777	323	241
	OR	8,300	2,259	901	637
	TX (west)	12,002	2,750	1,155	795
	WA	8,168	2,579	1,076	843
	Total	78,116	13,513	5,640	4,001
Southeast	AL	4,032	1,185	444	320
	FL	6,632	1,912	778	571
	GA	4,513	1,107	453	302
	KY	6,129	1,824	747	560
	NC	9,379	1,799	786	505
	OK (east)	4,500	1,219	525	390
	TN	5,751	1,189	587	382
	TX (east)	8,090	2,296	969	707
	VA	5,344	1,401	617	452
	Total	54,370	13,932	5,906	4,189
Northeast	IN	10,301	2,667	1,070	782
	IA	22,269	1,409	652	397
	MI	9,883	2,903	1,144	863
	MO	8,866	2,444	951	733
	NY	11,968	2,321	1,030	713
	OH	10,072	2,896	1,258	956
	PA	14,297	3,136	1,342	990
	WI	36,367	2,420	1,088	745
	Total	124,023	20,196	8,535	6,179
Total (21 States)		256,509	47,641	20,081	14,369
Percent of U.S.		76.6	72.5	73.1	72.9
Total U.S. (50 States)		334,754	65,742	27,481	19,722

*Source: NASS 2007 Census of Agriculture.

C. Angora Goats

Region	State	Number of Angora Goats*		Number of Farms	
		Goats on farms with 1 or more head	Goats on farms with 1–9 head	Farms with 1 or more head	Farms with 1–9 head
West	CA	3,400	560	262	202
	CO	1,007	391	182	148
	OK (west)	232	69	27	23
	OR	1,750	577	245	203
	TX (west)	131,178	608	600	215
	WA	1,197	389	200	159
	Total	138,764	2,594	1,516	950
Southeast	AL	262	210	57	53
	FL	236	90	54	45
	GA	814	240	106	80
	KY	810	324	129	108
	NC	1,418	391	174	130
	OK (east)	512	154	66	53
	TN	250	121	49	42
	TX (east)	1,519	461	183	146
	VA	1,533	300	158	107
	Total	7,354	2,291	976	764
Northeast	IN	367	232	66	59
	IA	780	220	78	61
	MI	1,058	373	164	140
	MO	1,334	186	102	73
	NY	886	321	152	126
	OH	1,361	382	160	129
	PA	1,298	555	227	192
	WI	790	390	179	158
	Total	7,874	2,659	1,128	938
Total (21 States)		153,992	7,544	3,620	2,652
Percent of U.S.		75.4	56.5	50.2	61.1
Total U.S. (50 States)		204,106	13,361	7,215	4,339

*Source: NASS 2007 Census of Agriculture.

D. Other (Meat) Goats

Region	State	Number of Other (Meat) Goats*		Number of Farms	
		Goats on farms with 1 or more head	Goats on farms with 1–9 head	Farms with 1 or more head	Farms with 1–9 head
West	CA	88,225	8,210	4,016	2,434
	CO	40,258	4,555	2,183	1,438
	OK (west)	48,443	3,077	1,962	843
	OR	28,061	5,539	2,453	1,709
	TX (west)	855,653	20,004	16,413	4,818
	WA	23,475	6,110	2,478	1,795
	Total	1,084,115	47,495	29,505	13,037
Southeast	AL	76,142	6,151	3,810	1,347
	FL	50,828	7,106	3,588	1,877
	GA	78,649	7,268	3,959	1,741
	KY	91,227	8,797	4,808	2,211
	NC	87,559	9,167	5,037	2,164
	OK (east)	68,881	5,588	3,243	1,438
	TN	124,967	13,586	6,549	3,238
	TX (east)	131,520	16,057	8,338	4,135
	VA	56,214	7,089	3,452	1,856
	Total	765,987	80,809	42,784	20,007
Northeast	IN	36,422	6,096	2,711	1,617
	IA	32,901	3,443	1,793	955
	MI	16,900	6,128	2,449	1,988
	MO	86,249	7,050	3,859	1,829
	NY	27,066	4,228	1,993	1,356
	OH	58,072	9,168	4,094	2,703
	PA	43,619	8,694	3,864	2,674
	WI	18,784	5,615	2,354	1,891
	Total	320,013	50,422	23,117	15,013
Total (21 States)		2,170,115	178,726	95,406	48,057
Percent of U.S.		83.4	74.3	77.4	73.9
Total U.S. (50 States)		2,601,669	240,498	123,278	65,063

*Source: NASS 2007 Census of Agriculture.

**E. U.S. Goat
Population,
January 1, 2010,
Inventory**

Region	State	All Goats	Milk Goats	Meat and Other Goats	Angora Goats
West	CA	NA	38,000	93,000	3,500
	CO	NA	8,400	38,000	NA
	OK (west)*	NA			NA
	OR	NA	9,100	30,000	1,900
	TX (west)*	NA			95,000
	WA	NA	7,300	22,000	1,000
	Total	NA	NA	NA	NA
Southeast	AL	NA	4,200	60,000	NA
	FL	NA	5,000	60,000	NA
	GA	NA	3,000	79,000	NA
	KY	NA	6,500	79,000	NA
	NC	NA	8,000	95,000	NA
	OK (east)*				
	TN	NA	6,400	125,000	NA
	TX (east)*				
	VA	NA	5,800	52,000	1,400
	Total	NA	NA	NA	NA
Northeast	IN	NA	11,800	33,500	NA
	IA	NA	29,500	25,000	NA
	MI	NA	10,900	16,000	NA
	MO	NA	9,000	84,600	1,400
	NY	NA	13,000	35,000	NA
	OH	NA	8,000	50,000	1,300
	PA	NA	17,000	42,000	NA
	WI	NA	46,000	21,000	1,000
	Total	NA	145,200	307,100	NA
Total (21 States)		NA	275,200	2,120,100	NA
Percent of U.S.		NA	77.5	83.5	NA
Total U.S. (50 States)		3,043,000	355,000	2,538,000	150,000

Source: NASS Sheep and Goats report, January 28, 2010.

*Inventory split between eastern half and western half of State is not available for January 1, 2010, inventory. State-level published inventories for Oklahoma and Texas are shown below.

	<u>All Goats</u>	<u>Milk Goats</u>	<u>Meat and Other Goats</u>	<u>Angora Goats</u>
Oklahoma	NA	8,300	90,000	NA
Texas	NA	20,000	990,000	95,000