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**R. W. WAYNE & D. E. OTTERBY**

# Dairy Goats

This fact sheet provides general information on dairy goats and lists publications which give more complete information.

## ORIGIN

The goat likely originated in Asia Minor, Persia, and nearby countries. Reference to the use of Mohair is recorded in the Bible at the time of Moses, and milk has been carried in goat skins since Biblical times.

## LOCATION

In 1961, there were 3½ million goats in the world. One-fourth of these were in India and Turkey. In many countries goats are the principal milk producers. There are more consumers of goat dairy products than of dairy products produced by cows. Goats were brought to Virginia by Captain John Smith when that colony was first settled. Present day dairy goats in the U.S. descend mainly from importations, starting in 1904, of Swiss dairy goats and those from other countries.

## BREEDS

### Nubian or Anglo-Nubian

This breed originated in England from crossing Indian or Egyptian goats with native British goats. They have long, wide, pendulous ears and convex noses. They may be any of several colors including black, grey, cream, white, and shades of tan and brown. It is a relatively large breed with does that weigh about 135 pounds. They produce less milk than other dairy goat breeds but it contains more butterfat (about five percent). The breed leader in milk production is 4,392 pounds.

### American La Mancha

They originated in the U.S. by crossing a Spanish breed with leading purebred breeds. Their exterior ears are either absent or very short. They have short hair and vary in color. Mature does weigh approximately 130 pounds. The breed leader in milk production is 3,295 pounds.

The Swiss type breeds, Toggenburgs, and Saanens come from Switzerland and the French Alpine in nearby eastern France. They are closely related to each other with erect ears, straight or dished faces, and alert carriage. They are sturdy, vigorous, and good milk producers.

### Saanen

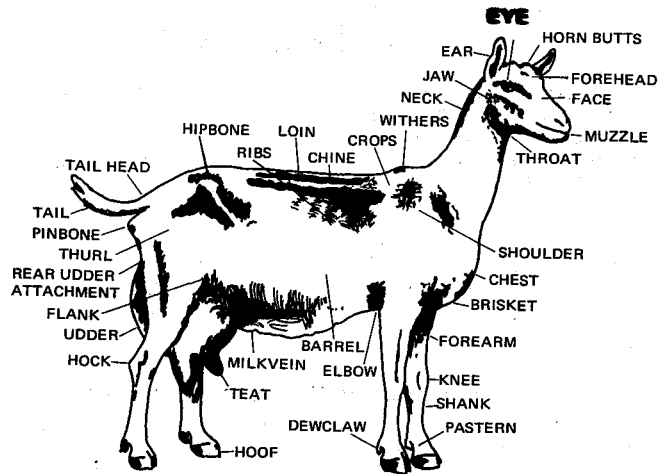
They are white or cream colored with short hair. They are medium to large with mature does averaging about 135 pounds. The breed leader in milk production is 4,905 pounds.

### Toggenburg

The hair is short to medium in length. The color is solid varying from light fawn to dark chocolate with distinct white markings on ears, face, legs, and tail. They are medium in size with mature does weighing about 120 pounds. The breed leader in milk production is 5,750 pounds.

## French Alpine

They vary a great deal with color markings of tan, black, white, cinnamon, strawberry, and shades of red. They are a large breed with mature does averaging 135 pounds. The breed leader in milk production is 4,826 pounds.



## TYPE

A dairy goat should be angular, not round, and have prominent hip bones and thin thighs with good length of neck and body. The udder should be capacious, well attached to the body, symmetrical, and of good, pliable quality.

## PRODUCTION RECORDS

Like dairy cows, goats vary greatly in their producing ability. Does producing 3,000 pounds of milk or more per lactation are excellent producers. People maintaining breeding herds should keep official production records. Production records should be maintained in any commercial herd. Such herds may be enrolled in their local DHIA's. If not, daily milk weights should be recorded for each milking doe once each month to secure a yearly milk record. The world's record production over all breeds is 5,750 pounds of milk and 191 pounds of butterfat in a 305-day lactation and is held by Puritan Jon's Jennifer II T121022 owned by Mrs. Carl Sandburg, wife of the famous Lincoln biographer. Tabulation of the DHI production records of 980 goats in 12 herds in four states shows an average yearly production of 1,780 pounds of milk and 64 pounds of butterfat. The high herd for milk averaged 2,122 pounds, and the high herd for fat was 81 pounds.

## HOUSING

Goats may run loose in a barn or be confined to individual pens. The latter requires more work and building investment. To facilitate milking, goats usually are milked on a raised platform.

## BREEDING

Does are seasonal breeders (from late August to late March) and seldom come-in-heat during the spring or early summer. The estrus cycle averages 21 days, and the gestation period is 151 days. Does should not be bred until they weigh 85-90 pounds and are about 10 months old. Estrus or heat in a doe is indicated by riding other animals, standing for riders, uneasiness, bleating, shaking of the tail, frequent urination, and swollen vulva. Average birth weight of kids is just under 6 pounds. Does over 18 months will average about two kids per pregnancy and those under 18 months about one and one half. Does may be bred artificially or by natural service.

## FEEDING

Like the cow, the goat is a ruminant and can be fed much the same ration as dairy cattle, including hay, silage, pasture, and a concentrated grain mixture. A milking doe will require 1,200 - 2,000 pounds of dry matter in feed annually depending on size. For each 1 pound of milk produced  $\frac{1}{4}$  to  $\frac{1}{2}$  pound of grain should be fed. The ration should have ample protein, minerals, and vitamins as explained for feeding the dairy cow in Bulletin 218. Ten milking goats can be maintained on the same amount of total feed normally fed to a Holstein cow producing well.

## MANAGEMENT

It is usually advisable to have at least two goats, since one alone will be bleating considerably because of lonesomeness. Males and females should be kept separated after 2-4 months of age. It is advisable to dehorn animals showing horns at an early age. All animals should be eartagged or tattooed following birth, and the eartag number, date of birth, and sire and dam numbers should be recorded in a permanent record.

Because goats are great browsers and will eat some things not normally eaten by most other domesticated animals, they may occasionally eat some plants that may have a toxic effect on them or taint the milk produced. Therefore, they should not graze where such plants may be growing.

## DISEASES AND HEALTH

Dairy goats are subject to most of the same diseases as dairy cows, namely brucellosis, mastitis, foot rot, lice, bloat, ketosis, milk fever, tuberculosis, coccidiosis and mange. Through good management, most of these can be controlled or held to a minimum. The dairy goat should be tested periodically for brucellosis and tuberculosis in accordance with the state health program.

## MILKING

Goats may be milked by hand or machine. To facilitate milking, goats usually are confined to a raised milking platform stall at milking time. The milk should be cooled as soon as drawn, then stored at temperatures of about 40° F.

## GOAT MILK

Goat milk as produced by healthy animals under sanitary conditions is a highly nutritious and healthful human food. It is usually pure white in color, with smaller fat globules and softer curds than average cow's milk, therefore making it easier to digest. The milk of Saanen and Toggenburg goats resembles that of Holstein cows in its composition of water, fat, lactose, protein, and minerals. The milk of the Nubian contains about five percent fat, thus resembling that of Jersey cows.

Goat milk has special uses for people, especially children, who are allergic to cows' milk. Because of its greater ease of digestibility, it is preferred also for many people with digestive disturbances. Cheese, butter, and other dairy products may be made from goat's milk. Goat milk may be sold to individual households in the community, but if to

be marketed in any quantity, a market must be available or developed that will take the entire production from the herd. According to Minnesota law, it may not be sold except at the farm where produced unless it is pasteurized in accordance with the law.

A small herd of goats could be maintained where facilities for a cow may not be possible. It would make a good 4-H project where 4-H members could work with a milk-producing animal and have some income from their project.

Sources of additional information on dairy goats are:

## ORGANIZATIONS

American Dairy Goat Association, Don Wilson, Secretary-Treasurer, Box 186, Spindale, North Carolina 28160.

The American Goat Society, J. Willett Taylor, 1606 Colorado Street, Manhattan, Kansas 66502.

Alpines International, Mrs. Helen Morelock, Secretary-Treasurer, 120 Basking Ridge Road, Millington, New Jersey 07946.

National Nubian Club, Mrs. Jean Van Voorhees, Secretary-Treasurer, R.R. 1, Box 416, Glen Gardner, New Jersey 08826.

National Saanen Club, Mrs. Fleeta Anthony, Secretary-Treasurer, R.R. 3, Marysville, Ohio 43040.

The American La Mancha Club, Mrs. Clarence Ryon, Secretary-Treasurer, R.R. 1, Dayton, Iowa 50530.

The National Toggenburg Club, Mrs. Catherine Bennett, Secretary-Treasurer, 8525 Overbrook Road, Fairfax, Virginia 22030.

## PUBLICATIONS

The Dairy Goat Journal published in Columbia, Missouri.

## BULLETINS

1. Dairy Goats—Breeding, Feeding and Management, 77 pp., published by American Dairy Goat Assn., Box 186, Spindale, North Carolina 28160.

2. The Dairy Goat, Extension Bulletin 1160, 20 pp., Extension Service, Cornell University, Ithaca, New York 14850.

3. Your Dairy Goat, 4-H Ag. 26, Extension Service, University of California, Davis, California 95616.

4. Dairy Goat Management, Extension Bulletin 334, 16 pp., Extension Service, Rutgers—The State University, New Brunswick, New Jersey 08903.

5. A Dairy Goat for Home Milk Products, USDA leaflet 538, U.S. Government Printing Office, Washington, D.C. 20401.

## UNIVERSITY OF MINNESOTA DAIRY PUBLICATIONS WITH INFORMATION APPLICABLE IN DAIRY GOAT RAISING

Feeding the Dairy Herd—Bulletin 218

Make DHIA Records Work for You, Extension Folder 225

Proper Milking Practices—Fact Sheet Dairy Husbandry 3

Care of Milk in the Home—Fact Sheet Dairy Industries 4

Cleaning and Sanitizing on the Farm—Fact Sheet Dairy Industries 6

Bacteria in Milk—Fact Sheet Dairy Industries 7

Abortions and Calving Problems—Extension Pamphlet 223, Series 6

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