

Caring For Dairy Goats

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By Michael F. Hutjens and Donald E. Otterby



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Agricultural Extension Service
University of Minnesota

This publication provides general information about dairy goats; it also lists publications which contain additional information.

ORIGIN AND HABITAT

Goats are thought to have originated in Asia Minor. Reference to mohair is recorded in the Old Testament of the Bible, and milk has been transported in goat skins since Biblical times.

Goats are the principal producers of milk in most Asian, Middle Eastern, African, and European countries. Worldwide, more people consume dairy products produced by goats than those of any other animal (including cows).

Goats were introduced into the United States by Captain John Smith during the settlement of the colony which is now Virginia. Most of the United States' modern dairy goat population descends from early 1900 importations of stock from Europe.

BREEDS

Nubian or Anglo Nubian

Distinctive characteristics of this breed are long, wide, pendulous (drooping) ears and a very convex nose. Nubians

originated in England as a mixture of Indian or Egyptian goats and native British goats. Color combinations are unlimited and include black, gray, cream, white, and shades of tan and brown. Mature does average 135 pounds. As a breed, they produce less milk than do other dairy goat breeds, but their milk generally has a higher percentage of butterfat (approximately 5 percent).

American La Mancha

This breed originated in the United States from crossing a Spanish breed (probably Murciana) with leading purebred breeds (notably Saanen and Toggenburg). The breed's distinguishing characteristic is the very short or totally absent exterior ears. These goats have short, fine hair and exhibit a wide range of colors. Mature does weigh approximately 130 pounds.

Swiss breeds

Toggenburgs, Saanens, and Alpines are the Swiss-type dairy goat breeds. They are all closely related. The Swiss breeds have erect ears, straight or dished faces, and an alert carriage. Toggs and Saanens originated in Switzerland, and the French Alpine breed originated in Eastern France. These breeds are distinguished from one another primarily by color.

Saanen

Saanens are white or cream-colored. Mature does weigh about 135 pounds. Saanens are noted for their high milk production. They generally test 3-4 percent butterfat.

Toggenburg

The Toggenburg breed is solid brown (varying from light fawn to dark chocolate), with distinct white markings on ears, face, legs, and tail. Their hair is short to medium length. They are medium-sized, with mature does averaging 120 pounds in weight. Toggenburgs are known for long lactations. Their milk tests 3-4 percent fat.

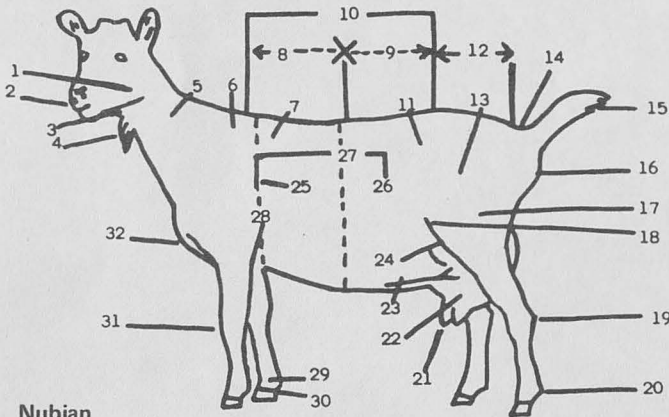
French Alpine

This breed varies greatly in color and markings, including solid colors and combinations of tan, black, white, cinnamon, strawberry, gray, and shades of red and brown. French Alpines are a large, alert deerlike breed. Mature does weigh about 135 pounds and produce milk that tests 3-4 percent fat.

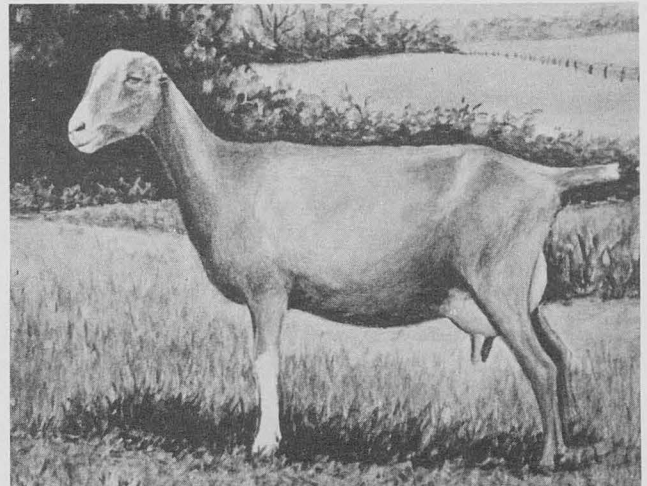
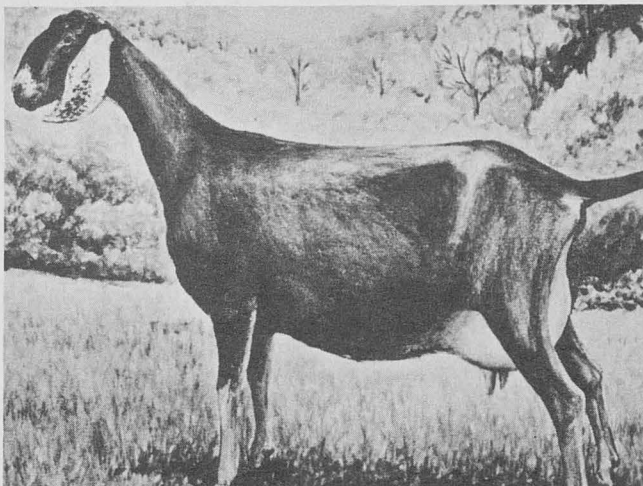
American La Mancha

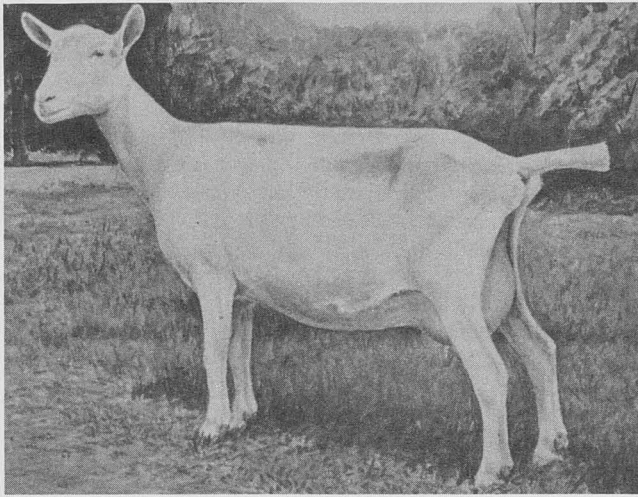
Parts of a goat

- | | | | |
|------------|---------------|---------------|-----------------|
| 1. Jaw | 9. Loin | 17. Thigh | 25. Fore rib |
| 2. Muzzle | 10. Back | 18. Stifle | 26. Rear rib |
| 3. Throat | 11. Hipbone | 19. Hock | 27. Barrel |
| 4. Wattle | 12. Rump | 20. Dew claw | 28. Heart girth |
| 5. Neck | 13. Thurl | 21. Teats | 29. Pastern |
| 6. Withers | 14. Tail head | 22. Udder | 30. Hoof |
| 7. Crop | 15. Tail | 23. Milk vein | 31. Knee |
| 8. Chine | 16. Pin bone | 24. Flank | 32. Chest |



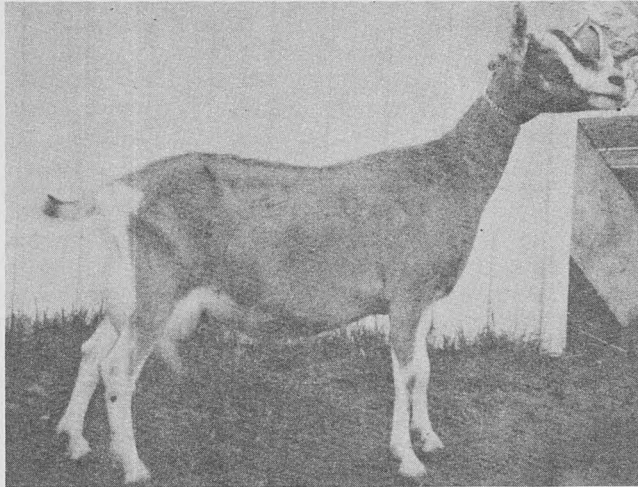
Nubian



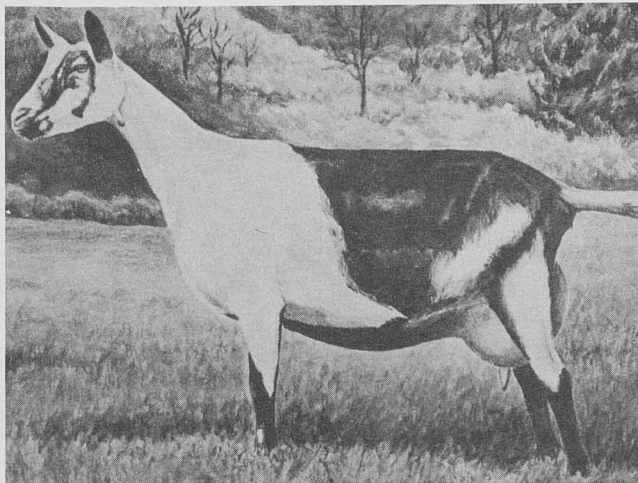


Saanen

Toggenburg



French Alpine



CHOOSING A GOAT

Breed selection is less important than the quality of the individual goat. Excellent milkers (those producing 3,000 or more pounds in one lactation) are found in all breeds. Excellent milkers tend to come from herds receiving carefully controlled breeding, feeding, and herd management. A dairy goat should be angular, not blocky or round. She should have prominent hip bones and thin thighs with a long neck and body. The udder should be capacious, with adequate fore and rear attachments to her body. The udder should be symmetrical (uniform) when full of milk and should be soft, pliable, and well-collapsed (with no hard lumps or meaty areas) when milked out.

Before buying a goat, visit breeders and attend goat shows and meetings. Buying two doe kids is often less expensive than buying a milking doe. More kids are available from January through June. Consider the production records of the dam (preferably 1,500 pounds of milk or more per 10-month production period), and carefully examine registration papers of both sire and dam.

HOUSING

Adult goats require an approximate pen space of 22 square feet per animal. The shelter must be ventilated, dry, and draft-free. An adjacent, fenced exercise yard is desirable. Milking does and kids should be confined in separate areas of the barn or shelter. Bedding is required in confinement pens and should be replaced in summer or added in winter whenever it becomes soiled or wet.

FEEDING

The goat is a ruminant and can be fed a ration similar to that fed dairy cattle. This includes hay, pasture, silage, and grain mixtures. The average milking doe requires from 1,200 to 2,000 pounds of forage dry matter annually (this amount should be adjusted for age, weight, and milk production of the individual doe). A milking doe should be fed at least 1 pound of grain mixture per day. This should be increased at a rate of $\frac{1}{4}$ pound of grain for each pound of milk produced per day in EXCESS of 4 pounds (2 quarts). The level of protein in the grain mixture depends on the quality and type of forage. The grain mixture should contain supplemental calcium, phosphorus, salt, trace minerals, and vitamins A and D.

BREEDING

Does are seasonal breeders, normally exhibiting estrus cycles from August through March. The estrus (heat) cycle normally occurs every 21 days, lasting from 1 to 3 days. A doe in estrus may show some of these signs: restlessness; bleating; riding or standing for riding; frequent urination; shaking of the tail; and a swollen, wet, or red vulva.

Before breeding a doeling (young female goat), allow her to weigh at least 75 pounds and/or reach 9 months of age. The gestation period (from breeding to birth) averages 145 to 151 days. The average birth weight of the kid is about 6 pounds. Does over 18 months of age will normally average 2 kids per birth, while does under 18 months will average 1.5 kids per birth. If the bred doe is milking, she should be dried off (not milked) 6-8 weeks before kidding. This allows her to prepare for her next lactation.

It is expensive, in time and money, to maintain a breeding buck to service only a few does. Registered, purebred buck service is normally available throughout Minnesota. Information

can be obtained from the Minnesota Dairy Goat Association (address below).

MILKING

Goats are milked twice a day on a regular schedule (preferably every 12 hours). They are milked from the side, either by hand or machine. To facilitate clean and efficient milking, goats are usually stanchioned on a raised milking platform. The milk should be filtered immediately and cooled to 40°F. or less within 2 hours. Milk may then be stored in the refrigerator in clean, covered containers.

RECORDKEEPING

Persons maintaining breeding stock herds or commercial dairy herds should keep careful, accurate production records. If possible, they should enroll in their local Dairy Herd Improvement (DHI) testing program. Those milking only a few does for family consumption should also weigh and record production each day. Such records help cull poor producers and help detect estrus and disease.

MANAGEMENT

For identification, animals should be tattooed immediately after birth. The tattoo number, date of birth, and the names and tattoo numbers of the sire and dam should be recorded. At 3 to 4 days of age, dehorn all goats showing horn buds. Males and females should be penned separately after 2 months of age. If possible, keep at least two goats, since one alone will bleat considerably because of loneliness. Goats need periodic hair and hoof trimming for optimal health and comfort. Goats may become ill if allowed to indiscriminately graze pasture or brush land. Indiscriminate grazing can also adversely affect the flavor of their milk. Therefore, confine goats in fenced areas. Fencing should be at least 4 feet tall.

GOAT MILK

Goat milk, when produced by healthy animals in sanitary surroundings, is a highly nutritious and healthful human food. It is usually pure white. Milk from the Swiss breeds closely resembles the milk from Holstein cows in fat, water, lactose, protein, and mineral content. The milk of the Nubian breed has a greater butterfat content (about 5 percent) and resembles Jersey cows' milk.

The primary difference in goat milk and cow milk is the relative size of the fat globules and the consistency of the curd. Goat milk has smaller fat globules and a softer curd, making it easier for humans to digest. Goat milk has special value for children and adults allergic to cows' milk. A dairy goat owner can, according to Minnesota Law, sell raw (unpasteurized) milk to consumers as long as the milk is purchased on the farm where it is produced. If surplus milk is marketed away from the farm, it must be pasteurized at a state-approved facility.

4-H

4-H'ers not having facilities for cows can often have dairy goats. Resource people and county extension 4-H advisors are

willing to help 4-H members having dairy goat projects. A dairy goat 4-H project manual is available from your local county extension office (4-H B-12, 1975).

ADDITIONAL SOURCES OF INFORMATION

Publications

Dairy . . . Kids and Goats, 4-H Dairy Goat Manual, 4-H B-12, University of Minnesota, St. Paul 55108
Gopher Goat Gossip, c/o Minnesota Dairy Goat Association, P.O. Box 377, Silver Lake 55381
The Dairy Goat Journal, P.O. Box 1908, Scottsdale, Arizona 85252
Countryside and Small Stock Journal, R. 1, Box 239G, Waterloo, Wis. 53594

Bulletins

Dairy Goats—Breeding, Feeding, Management, published by American Dairy Goat Association, Box 186, Spindale, N.C. 28160 (also available through the MDGA)
The Dairy Goat—Extension Bulletin 1160, Extension Service, Cornell University, Ithaca, N.Y. 14850
Your Dairy Goat, 4-H Ag. 26, Extension Service, University of California, Davis 95616
Dairy Goat Management, Extension Bulletin 334, 16 pp., Extension Service, Rutgers—The State University, New Brunswick, N.J. 08903
A Dairy Goat for Home Milk Production, 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—Extension Bulletin 218
Make DHIA Records Work for You—Extension Folder 225
Proper Milking Practices—Dairy Husbandry Fact Sheet 3
Care of Milk in the Home—Dairy Husbandry Fact Sheet 4
Cleaning and Sanitizing on the Farm—Dairy Husbandry Fact Sheet 6
Bacteria in Milk—Dairy Husbandry Fact Sheet 77
Abortions and Calving Problems—Extension Pamphlet 223, Series 6

Organizations

Minnesota Dairy Goat Association, P.O. Box 377, Silver Lake 55381
The American Dairy Goat Association, P.O. Box 186, Spindale, N.C. 28160
The American Goat Society, J. Willett Taylor, 1606 Colorado St., Manhattan, Kan. 66502
Alpines International, Mrs. Peggy Blakney, 10370 Wise Rd., Auburn, Calif. 95603
National Nubian Club, Mrs. Jean Van Voorhees, R. 1, Box 416, Glen Gardner, N.J. 08826
National Saanen Club, Della Frazier, 9132 Hastings Blvd., Riverside, Calif. 93509
The American La Mancha Club, Mrs. Helen Morelock, 120 Basking Ridge Rd., Millington, N.J. 07946
The National Toggenburg Club, Lucy Richardson, R. 1, Box 177A, Pattenburg, N.J. 08802