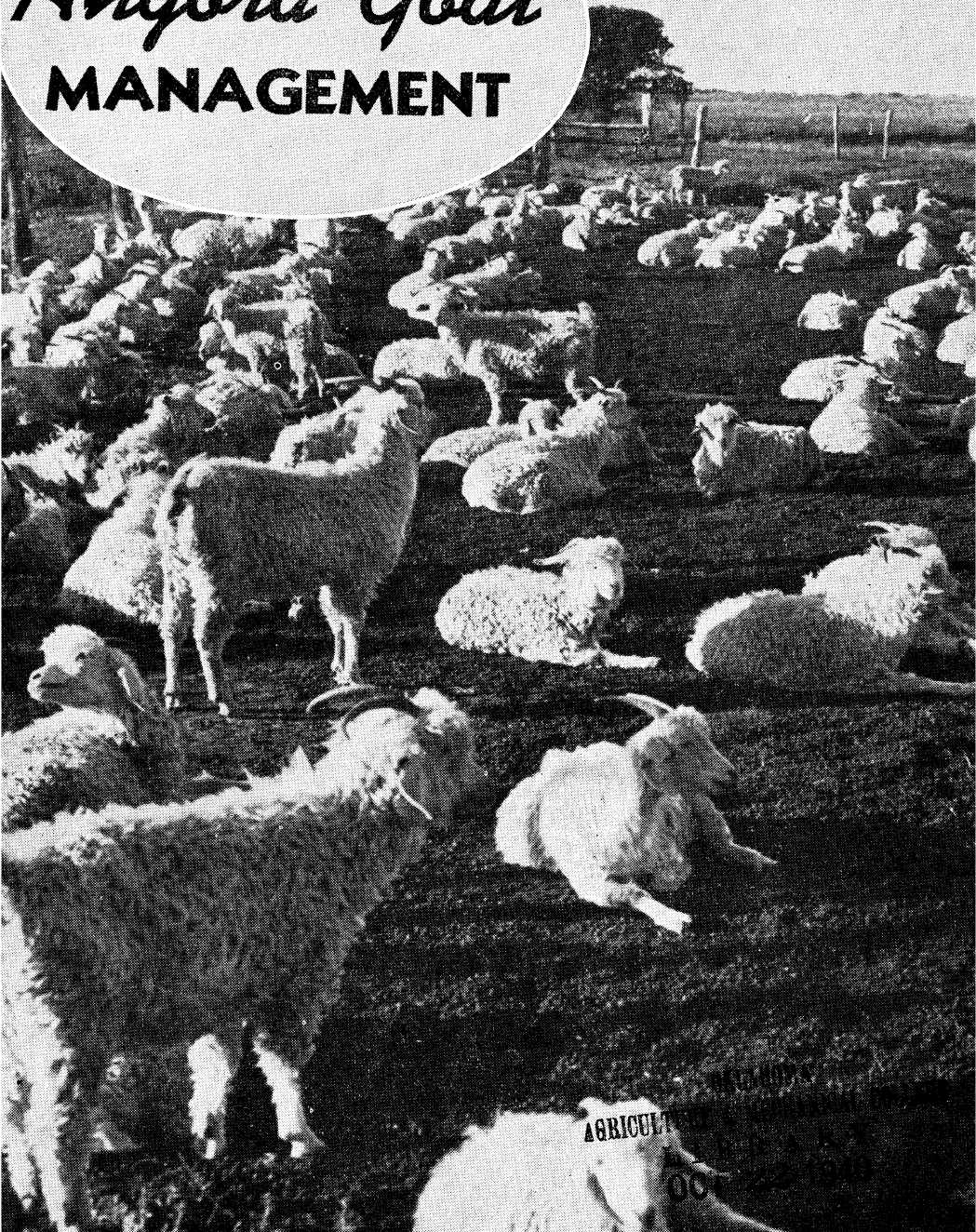


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Collection

# Angora Goat

## MANAGEMENT



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OKLAHOMA A.&M. COLLEGE, EXTENSION DIVISION

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## **ANGORA GOAT MANAGEMENT IN OKLAHOMA**

**H. M. BRIGGS and F. W. BEALL**

The Angora or mohair producing goat originated in a small hilly section of Turkey, known as Angora. Mohair of fine quality has been produced for years in this section of Asia Minor, and the Angora goat has spread from there to other parts of the world.

Angora goats were imported into the United States as early as 1849 and rapidly gained popularity. Operators in the Texas range country quickly realized these small grazers had a distinct place on their ranges. The goats consumed mostly browse and brush and produced a valuable clip of mohair. The Angora lent itself to herding on the rough and brushy ranges, and in many cases improved the ranges for the use of cattle and sheep.

Texas, with her nearly three million head of Angora goats, stands today as the leading goat state in the United States. This southern neighbor of Oklahoma has approximately three-fourths of all the hair-producing goats in the United States and produces nearly 85 percent of our annual mohair clip. Two factors have contributed to Texas becoming such a prominent goat state. One is the special adaptability of parts of the state to goat production, and the other is the satisfactory return that has been made from mohair over a period of time. Sales records kept at five of the principal mohair warehouses in Texas reveal that during the thirty-year period of 1908-1938, mohair sold for an average of 42.7 cents per pound for grown hair and 55.0 cents per pound for kid hair. Oklahoma prices would have to be enough lower than these prices to account for freight, handling charges, and any differences that might exist in grade. The average goat clipped in the United States produces an annual yield of 4.2 pounds of mohair.

Arizona, New Mexico, Oregon and Missouri follow Texas as leading mohair producing states. It is interesting to know that Oklahoma lies between two of the nation's leading mohair producing states and has areas very similar to those that have made these states famous as goat states. These facts suggest that goats will undoubtedly share a more prominent place in the future of Oklahoma agriculture.

### **THE FEEDING HABITS OF GOATS**

Goats are by nature a foraging animal. All classes of goats make a large part of their living from browse (see Fig. 1). Browse is a term used to refer to low growing trees, shrubs or

brush that produce an abundance of leaves near the ground. Familiar types of browse in Oklahoma are shinnery oak, wild plum and other types of undergrowth that cover wooded areas. Persimmon sprouts are coming into some of Oklahoma's range pastures, and goats are being used in several instances to keep the sprouts in check or to kill them out. Persimmon growth is less palatable to goats than some types of forage, but they eat considerable of it, particularly if other types of brush are not found in abundance.

In addition to browse, goats eat a large proportion of the weeds found on Oklahoma ranges and pastures. They, likewise, will eat some grass. Goats are not unlike other classes of stock in that they have preferences for some types of forage as compared to others and may eat the preferred kind until the supply of it is practically exhausted. They will then start on the other types of forage.



**Fig. 1. Goats Grazing on Oklahoma Brush Area.**

There are two systems of management that can be used in grazing brush areas with goats. In one system a large number of goats are placed on the area and the browse is overgrazed until it is killed. This system of grazing usually takes from two to five goats per acre, depending on the density of growth

and the length of time allowed for clearing. The number of goats can be reduced as the major portion of the feed is removed. A second system of management differs from the first in that the area is not overgrazed, but rather only enough goats are kept on the area to make a maximum return in mohair over a period of time. In this latter system the brush is regarded as an asset in the pasture. Cattle are usually allowed to graze the same area with the goats, and the goats improve the cattle range by keeping the brush in check and permitting sunlight to reach the grass.

Some years ago F. A. Gillispie of Tishomingo, Oklahoma, secured a band of goats to clean some of his pastures of brush. Included in his purchase were a few Angora goats, but common brush goats made up the largest part of his purchase. The Angora goats in the band yielded a clip or two of mohair that convinced the owner that the Angoras were considerably more profitable than the common goats because of the satisfactory return from mohair. The common straight-haired goats were sold in 1936, and the Angora band was increased to approximately 400 breeding does or nannies. A very gratifying income from his mohair has convinced Mr. Gillispie that it is more profitable to continue to graze the brush than it is to kill it off completely. The carrying capacity of the pastures, in which goats have been used, has been materially increased in cattle units. No doubt many other very brushy pastures in Oklahoma could likewise be profitably handled.

#### **ADAPTABILITY OF GOATS TO OKLAHOMA CONDITIONS**

The interest in goats has been increasing rapidly in Oklahoma the past five years. Several factors have contributed to this increased interest. Oklahoma has thousands of acres of brush land and timber land with dense undergrowth. Much of the browse of these areas is well adapted to goats. The rolling topography of these sections also adapts them to goats. Like sheep, goats do better on well-drained or rolling land than they do on low or poorly drained areas. Because of the small amount of palatable grass on these rolling and brushy areas, at present they are of little value as pastures or cattle and sheep ranges.

Another factor that adapts Oklahoma to goats is the favorable climate that is experienced throughout most of the year. The growing season is long and goats can be expected to get their entire subsistence from foraging except for a limited time. Favorable weather means that the goat must be housed for only a short time.

The relatively mild climate of Oklahoma not only causes browse and grass to be available much of the year, but also allows the production of winter small grain crops. Wheat, rye and winter oat pastures can be available during the winter in most localities except in very dry seasons. Bert Carson, of Marlow, Oklahoma, has found that winter wheat pasture makes an ideal feed for his Angoras. These winter pastures make ideal winter supplementary feed and remove the necessity of feeding much, if any, cured feed or concentrates to goats. When such pasture is not available, legume hay should be fed, or protein concentrates and dry roughage can be used.

There are a few points in raising goats in Oklahoma that should not be overlooked. The two greatest enemies of goats in Oklahoma are internal and external parasites. Both of these difficulties can be controlled if the goats are systematically dipped and properly drenched by approved methods.

Marauding dogs, wolves and coyotes also are often menaces to the goat owner. Dogs can often be controlled by popular opinion, and some owners use even more drastic measures. Wolves and coyotes usually are not much bother if they are kept hunted and trapped. Some operators keep a few dogs and trail the intruders for sport. Government trappers can usually be secured to render their very effective and valuable services in communities in which considerable trouble is experienced. Perhaps one of the most effective methods of preventing loss from dogs, wolves and coyotes is to keep the goats corralled at night in a dog- and coyote-proof corral.

Oklahoma occasionally has short spells of adverse weather during the winter and early spring. If goats are left unprotected during bad weather, particularly just after shearing, serious death losses may be encountered. Because the state does experience changeable weather the operator should provide a dry, draft-free shelter for all the goats. Ample protection is usually provided by a three-sided shed that is open to the south, and covered by a good roof. Additional protection may be needed for young kids born during bad weather.

Fences provide an item of expense that must not be overlooked by those contemplating the purchase of goats. Goats require a good, tight fence that will keep them from both crawling through or under it. Two types of fencing may be used satisfactorily. These will be discussed later.

One factor that troubles the beginner in the goat business is the fluctuating price of mohair. This product goes up and down rapidly in price like all other raw commodities, but makes more violent changes than many other items which the pro-

ducer is in the habit of marketing. The point that fools many beginners in the goat business is that they are probably unduly encouraged to get in because of an extremely high price and not an average price. Usually high prices lead to a greater production and a lower price for a commodity.

Thus far the marketing of mohair in Oklahoma has for the most part been done in a haphazard manner. Local and traveling buyers have often purchased the product at a mere fraction of its real value. Cooperative effort on the part of small growers should enable them to sell the hair at its fair value. Proper marketing of a quality product should materially increase the return from Angora goats.

The price of Angora goats fluctuates with the price of mohair. Most Angoras that are found in Oklahoma have been purchased in Texas, which will probably remain our chief source of supply. Central markets are not a good place to sell the produce from a flock of goats. The Angora has thus far been appreciated more as a mohair producing animal than as a meat producing animal. Some people find that young kids make tasty meat, and plan to eat the young kids they do not need for replacements. Sometimes the goats can be sold satisfactorily to local people for meat or for "brushing" land.

**MANAGEMENT OF GOATS IN OKLAHOMA****THE SELECTION OF BUCKS**

There are two types of goats available to purchasers. One is the common brush goat, and the other is the Angora. The brush goat can usually be purchased at a very low cost but yields no income from hair, and can be resold only at a low price. Its only asset is its ability to clean up brush land. The Angora goat costs more, but yields a substantial income from its hair clip; and it is easier to sell the increase from the flock.

Only heavy clipping, well-bred Angora bucks should be used on either class of goats. The registered buck that has been bred for a heavy hair clip represents a substantial investment and yields a great return for his owner. The easiest and least expensive way to improve the clip from the flock is to use good bucks. Not only will registered Angora bucks prove valuable on Angora does, but they have also proved valuable on common goats. Oscar Rose, of Whitesboro, Oklahoma, started using registered bucks on common white goats and noticed a decided improvement in each succeeding generation. He was able to clip some hair from second and third generation goats, and goats of the fourth and fifth generation had ability to yield approximately a four pound clip annually. The continued use of high quality bucks will turn a flock of brush goats into a flock of Angoras as culling gradually remove the common goats from the flock. It is usually more profitable to buy Angora does to establish the flock if they can be obtained, because they yield a worthwhile income before the other goats start producing hair. Shedding of the hair is not so common on well-bred goats as on goats containing less Angora blood. Flock improving sires are just as important in the improvement of a goat flock as sires are in the raising of the quantity and quality of production in any class of livestock.

**THE BREEDING SEASON**

The gestation period of goats is approximately 147 days in length although they may kid normally any time from 142 to 152 days. An owner of a goat herd should decide when he wants his first kids to come and then figure out when the bucks should be first given access to the breeding females. It is extremely poor management to allow bucks to run with the herd the year around, and allow the kid crop to be scattered over a considerable portion of the year.



Angora goats normally breed in the fall and have their kid crop in the spring. A single birth is the rule, but twins are not uncommon. Common goats tend to breed over a longer breeding season than Angoras, and multiple births seem to be more common; often two kid crops are experienced in a year if the bucks run with the herd the year around. This may not be so much of a disadvantage where the producer is grading up common goats to the improved mohair type, and wishes to make as much progress as possible in a short time.

Perhaps one of the best times to have kids dropped in Oklahoma is the middle of April, unless shedded protection of a good type can be offered. This means that the bucks can be turned with the band about the middle of November. They should be left with the band at least five weeks and a longer period may be desirable. The oestrous, or heat period, of the goat averages about 17 days, and a five weeks breeding season allows all females at least one chance to return to heat. Early kids are found to be preferred by those that can furnish ample protection while they are small.

Ample breeding males should be provided. Bucks should not be expected to do satisfactory breeding before they are 18 months old. Experienced goat men feel that one mature buck to 35 does or three bucks per hundred does is as heavy service as should be expected from one male. A greater number of females is likely to lead to many barren females and a scattered kid crop. An ample number of satisfactory breeding bucks is spoken of by experienced goatmen as "kid crop insurance."

Many operators find that keeping the bucks away from the doe band in the day time and turning them together at night gives very satisfactory results. Some have found that feeding the bucks some grain, such as oats, during a heavy breeding season is a good investment. It should be remembered that a thin, run down buck will not give satisfactory results.

#### **KIDDING**

Probably the most important season of the year for the goat owner is the kidding season. Each new-born kid is an asset and should be regarded as such. Angora kids are delicate and must be given a good start in life if they are to live.

Several satisfactory practices may be followed in kidding out the band. One satisfactory method for Oklahoma is to put the does nearest kidding in a small pen or paddock that provides ample shelter during inclement weather. The caretaker should keep the young kid from becoming chilled and must get

it warm immediately if it does. The normal kid will soon be on its feet after birth and will be attempting to nurse. If the mother claims the young it will usually nurse in a short time. If she does not claim the newborn, she should be placed in a pen, approximately four feet square, and made to let the kid nurse. This can usually be accomplished if she is held and the kid lent some assistance for a few times. It is very important that the kid gets the first milk, or colostrum, from its mother.

Small lots that have a shelter can be provided for the nursing does and young kids under Oklahoma conditions. It is best to keep the does and young kids isolated from the rest of the herd. After the kid is several days old the does can be turned to the range with the rest of the band, but kids should not be allowed to trail until they are at least several weeks old. They may be retained in the corral by a barrier two feet high which does can easily jump. It takes a good fence to turn young kids as they can crawl through rather small openings.

#### **FEEDING THE GOATS**

Does that are in good health and receiving plenty of feed will nurse the young better and get them started off more satisfactorily than undernourished does. If grazing is ample or winter pasture is available no additional feed is needed, but if it is not the does should be fed an ample amount to insure a good milk flow. Alfalfa, cowpeas and other legume hays are very satisfactory feeds for the pregnant and nursing does. If alfalfa hay is not available, prairie hay or other non-legume hay may be used and the does fed two-tenths pound of cottonseed meal per head daily.

It is well to add one-fourth to one-half pounds of oats per doe to the ration two or three weeks before kidding and this may be increased slightly after she starts nursing. Hay racks and feed troughs should be used that result in a minimum of waste. The bucks and wethers will need only good roughage and possibly some protein supplement if non-legume hays are used during the winter.

#### **CASTRATION OF THE KIDS**

The male kids should be castrated at an early age. Many operators prefer to perform the operation when they are about 10 days old, while some prefer to do it at even a younger age. The essential point is that it be done.

Castration of goats is very simple. The lower one-third of the scrotum is removed with a sharp knife and the testicles are

pulled out. A disinfectant should be poured on the wound. "Ridglings" or "Cryptorchids" (one testicle does not come down in the scrotum) are very common in goats. In castrating such an animal the descended testicle should be removed, and the kid marked for an early sale from the flock. This condition is hereditary, and any animal showing the tendency should not be allowed to sire kids.

Wethers or muttons, as they are commonly called, are usually considered valuable enough to keep for their mohair production. Good wethers clip a good weight of quality hair and yield a satisfactory return on the investment. Wethers are even more valuable when it is desired to increase the number of goats to destroy brush.

#### FENCING

The need of good fences for goats has already been stressed and this item should be given careful consideration in planning a goat enterprise. Good fences for the goat owner keep his neighbors friendly, because they keep the goats at home. Fences represent considerable financial outlay when all the

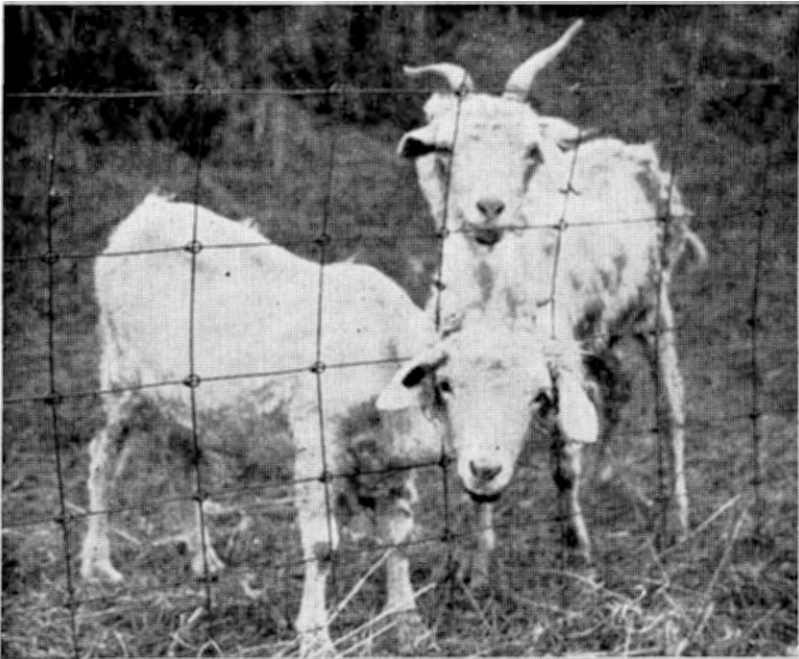


Fig. 2. Fastened in woven wire with improperly spaced stay wires.

materials must be furnished. However, posts can be had for the making on much land suitable for goats, and the fence can be built at odd times without the expenditure of money for labor. Usually the only cash item in fencing is the cost of wire. Local dealers are glad to furnish estimates of this expense.

Two types of fencing may be used. Perhaps the most common is barb wire. Five wires will hold goats if they are properly spaced and other livestock is not being fenced. The lower wire should be placed five inches from the ground and the other wires can be placed up the post at intervals of 6, 7, 8 and 9 inches. At least two more wires will be needed for lot fences. If cattle are being grazed on the same area as goats two additional wires will be needed, making the fence a seven-wire fence. Woven wire can be used for fencing goats. Thirty-two-inch woven wire or 26-inch woven wire and two barb wires will make satisfactory line fences. Higher fences are added protection and must be used if cattle are to be allowed in the enclosure.

Woven wire must be regarded as highly unsatisfactory for goats unless the cross stays are of the proper spacing. Does and wethers constantly reach through fencing and are not able to back out because their upright horns get hooked over the wires and they are unable to remove their heads (see Fig. 2). If a caretaker does not find fastened goats they will die in a few days. The horn spread of aged bucks prevent them from getting their heads in the fence. If woven wire is used the cross stays must be close together so as not to allow the goats to get their heads through, or wide enough apart so they can turn their heads to the side and withdraw them. The narrow mesh wire is expensive and consequently is not commonly used in line fences, but may be of value in lot fences. Woven wire that has a 6-inch spacing of horizontal wire and a 12-inch spacing of cross stays, allows goats to free themselves and consequently renders satisfactory service.

#### **CLIPPING AND HANDLING MOHAIR**

The mohair clip from goats should be clipped with as much attention paid to details of proper season, correct methods and special care as would be used in harvesting any other crop.

Goats usually shed mohair early in the spring, and shedding results in sizeable losses if the goats are not clipped before it takes place. It is best to shear goats twice each year in Oklahoma. The first clip should, as a general rule, be taken

between the middle of March and the first of April. Weather and other considerations can, of course, change the time that it is most satisfactory to clip. The fall clip can usually be most satisfactorily taken about September first, as removing the hair at such a time allows the goat to grow ample protection before cold weather.

Goats may be clipped by hand or machine. The machine method gives a more satisfactory job if an experienced operator can be secured. The essential consideration is to get the hair off when it should come off. A special comb and cutter is required on a sheep shearing machine to properly clip mohair.

The adult hair and kid hair should be kept separate so that the kid hair may enjoy the premium that is due. Kids born in the spring give a crop of kid hair their first fall and the following spring. Kid hair is usually worth 10 cents more per pound than adult hair. The clip from each animal should be bundled together without tying and packed in a special sack for mohair or wool. The producer should recall that high quality mohair is worth a good price and should not sell his clip to the first buyer—on his first offer—unless the offer is known to be a fair one. One buyer was observed to raise his own bid 10 cents per pound and still be below the market price of a clip. Cooperative sales effort on the part of the growers of a locality will help to secure a just price. The mohair clip should be regarded as the big harvest in Angora goat production and the clip should be given the care in clipping and marketing that its value justifies.

## PARASITES

Goats are a class of livestock that is practically free from contagious diseases, but on the other hand are perhaps as much or more subject to parasite infestation and damage than any other farm animal. Two types of parasites are common in Oklahoma. Of these, the damage from external parasites is usually the most easily observed.

### EXTERNAL PARASITES

The goat seems to be a favorite host of the louse family while ticks, mites, and other external parasites also cause damage. The treatment is very simple, and consists of simply dipping the animals at the proper intervals in a correct solution.

Lice and other parasites attack goats of all ages, but do their greatest damage by sucking blood from the kids. Evidences of external parasites are rubbing, biting of the body, and scratching the body with the horns. Rubbing often causes hair to start to slip. If the goats are caught and examined, the small black lice and their nits will be observed. The discovery of a louse is evidence that the goats need to be dipped. Goats, of course, should be dipped only on warm days in warm weather. Systematic dipping will keep down all losses from lice.

In order to effectively dip goats a dipping vat is almost a necessity. Goats should be dipped at least after each shearing so as to effectively kill off all external parasites that are present. The entire band must be dipped each time if the infestation is to be stopped. If coal tar dips are used they should be used twice at intervals of 14-16 days according to the manufacturer's directions. If other commercial dips are used they likewise should be used according to directions. Some commercial dips prove effective if used just once after each shearing. Some successful producers find that it pays to dip at least three times per year. Details for the construction of a dipping vat and further dipping suggestions may be found in U. S. D. A. Farm Bulletin No. 798.

### INTERNAL PARASITES

The other type of parasites that bothers goats is internal parasites. Of these, the stomach worm and tape worm do the most damage in Oklahoma, and both are controlled by the same treatment. Stomach worms are spread while the goats are on pasture, and it takes the parasite about one month to

complete its life cycle. Therefore, it is best to treat infected goats once a month during the grazing season. If goats are effectively drenched twice, at 16-day intervals, before they are turned onto a new range, considerable infestation will be prevented. A recommended formula should always be used according to directions, or reliable commercial preparations used as the manufacturer designates. The commercial drenches and capsules have the disadvantage of being expensive and give no better results than those worked out by experiment stations.

The following drenching formula has been giving satisfactory results at many experiment stations:

- 3 gal. water
- 3 oz. (wt.) 40% Nicotine sulphate
- 4 oz. copper sulphate (Blue crystals)

The copper sulphate can be dissolved in any portion of the water used. It is usually most convenient to warm one gallon and put the crystals in it so they will dissolve readily. The essential point is to know just how much water is used because guess work is dangerous. Only standard measures of known size (not so-called gallon buckets) should be used. It should be remembered that 2 $\frac{1}{2}$  fluid ounces are approximately equal to and can be substituted for the 3 ounces by weight of 40% Nicotine sulphate that are recommended. If it is desired 4 ounces of tobacco may be steeped overnight in hot water and used in place of the 40% Nicotine sulphate.

It has been found that a 4-ounce dosing syringe that has the plunger graduated in ounces, by a file mark, is the most convenient method of administering the drench. A long necked bottle or stomach tube can also be used satisfactorily. A dosage of 4 ounces is used for a mature goat, 3 ounces for yearlings, 1 $\frac{1}{2}$  ounces for small kids and 2 ounces for large kids.

More convenient materials are aiding the producer with his drenching problems. Some companies are putting up drenching materials in special measured packages as an added convenience to their patrons. Any drug store can also supply the ingredients needed.

It usually works out most satisfactorily to have the goats that are to be drenched in a small corner. The goats should be caught one at a time and then backed into a corner. The drench can be administered most easily if the goat's neck is straddled by the operator. The goat should then be put out of the pen so it will not be drenched again.

## ADDITIONAL INFORMATION

The breed association for registered Angora goats is the American Angora Goat Breeders' Association, Rocksprings, Texas. The association is glad to furnish prospective buyers information concerning breeders and other matters pertaining to the Angora goat industry.

The following references will be of value to the person interested in further information on goats:

1. The Angora Goat, U. S. D. A. Farmers Bulletin No. 1203.
2. The Angora Goat and Mohair Industry—Misc. Cir. No. 50. U. S. Gov't. Printing Office, 30¢.
- \*3. Equipment for Farm Sheep Raising, U. S. D. A. Farmers Bulletin No. 810.
- \*4. Parasites and Parasitic diseases of Sheep, U. S. D. A. Farmers Bulletin No. 1330.
- \*5. Sheep Management in Oklahoma. Oklahoma Extension Circular No. 272.

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\* These sheep bulletins contain valuable information that is applicable to goat raising.

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