texas
angora
goat
production
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Angora goats are adapted to a dry, mild climate. Since they are primarily browsing animals, they thrive best where there is a good cover of brush, weeds and grass.

Texas has more than 95 percent of the Angora goats produced in the United States. Because they aid in controlling the ever-increasing brush, they likely will continue to be popular. See figure 1.

Contrary to general belief that the Angora goat is a tough, tin can eating animal, he actually is sensitive, intelligent, healthy and easily managed. His worst enemy is a cold, chilling rain within 6 weeks after shearing. During this period he needs particular care and attention.

Angora goats adapt easily to grazing with other classes of livestock. Results of grazing experiments conducted at the Texas A&M University Agricultural Research Station at Sonora show that cattle, sheep and Angora goats grazing together utilize pastures better than any other combination of animals or any class run separately.

In Central Texas it is common to run cattle and Angora goats together. This is probably the second best combination for gain per acre.

Edwards Plateau ranchmen have run all three classes of livestock on the same range for years.

Types of Ranges

Angora goats can use many kinds of pasture. They are adapted to high, rough land, since they are excellent climbers and travelers. They are useful in clearing some types of brushy land and help control sprouts on some types of cleared land. They need a good water supply and year-round browse. See Table 1.

When goats graze on dry grass and weeds, fleeces will be light in weight and lack natural oil. With access to green browse or green grass and
weeds, their fleeces will be heavier and contain more natural oil. Small grain provides excellent grazing but usually causes mohair to be coarse.

If year-round browse is not available, goats may require supplemental feeding during winter.

Angora goats relish many kinds of brush, the most important being live oak, which provides year-round browse. Angora goats fit into a long-range ranch program where considerable live oak browse is available.

Goats are used to kill shin oak by concentrating them on the infested area during spring and summer. Shin oak does not supply browse during winter. Goats can get oak bud poisoning in early spring when limited to browsing on oak.

Other varieties of oak sprouts provide good browse during spring and summer. Goats control post oak sprouts in cutover and bulldozed areas. They are especially fond of post oak leaves in the first fall after frost.

Because of their traveling and grazing habits, goats usually get most of the acorns in a pasture. Eating too many acorns, however, may cause compaction.

Elm provides good browse during spring and summer.

Goats are used to clean out briars since they are especially fond of them. Use mature goats for this purpose because the briars can catch and hold young goats, which often do not have strength to pull free.

Catclaws provide nutritious browse that goats eat during spring and summer. Do not run kids and young goats on catclaw because of entanglement.

Ill-scented sumac is excellent browse for goats. Since they like it so well they often eat the bark and kill the bush.

Goats eat cedar, preferably second-growth cedar, during fall and winter, especially if little green feed is available. They can winter on cedar, some green weeds and dry grass.

Guajillo, limited mostly to the southern edge of the Edwards Plateau, is excellent browse. It may

Table 1. Common varieties of brush may be rated as to their utilization by goats.

<table>
<thead>
<tr>
<th>EXCELLENT</th>
<th>GOOD</th>
<th>FAIR</th>
<th>POOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guajillo</td>
<td>Briar</td>
<td>Cedar</td>
<td>Black persimmon</td>
</tr>
<tr>
<td>Live oak</td>
<td>Catclaw</td>
<td>Coral bean</td>
<td>Mesquite</td>
</tr>
<tr>
<td></td>
<td>Elm</td>
<td>Wild plum</td>
<td>White brush</td>
</tr>
<tr>
<td></td>
<td>Ill-scented sumac</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post oak</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shin oak</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small-leaved sumac</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spanish oak</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yaupon</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
produce a condition known as limber leg if eaten excessively. Ranchmen regard it highly as a browsing plant for livestock.

About the only utilization goats make of mesquite is after frost when leaves begin to fall. They also relish mesquite beans, which may cause compaction if eaten excessively. Brush such as mesquite, black persimmon, white brush and huisache cannot be controlled by goat grazing.

Additional information on using goats to clear brush from rangeland can be obtained from Texas Agricultural Experiment Station Miscellaneous Publication 206, GOATS PAY FOR CLEARING GRAND PRAIRIE RANGELAND, available from the Agricultural Information Office, College Station, Texas.

Types of Operation

Angora goat flocks vary from 25-30 head in farm flocks to range flocks of several thousand head. Production of registered Angora goats is not recommended unless the ranchman has had experience in commercial production.

Breeding registered Angora goats is detailed business and requires accurate records on breeding and kidding dates, sires and dams.

Individuals entering the registered goat business should have good knowledge of genetics, nutrition, as well as advertising and salesmanship.

Registered flocks usually are smaller than commercial flocks, and supply bucks to commercial producers.

Commercial flocks usually are produced in areas with suitable range, mainly for the mohair and wether goats that go to market for meat or to someone interested in controlling brush.

Using goats to control sprouts on cutover, bulldozed or chained brush country is popular in certain sections. Wether goats are more popular for controlling sprouts because they usually are larger, stronger and can withstand more cold after shearing than kids and does. Ranchmen interested in controlling brush many times are not interested in breeding goats.

Some flocks of wethers are maintained for mohair production. The trend toward finer quality mohair makes it important to keep the flock young and the quality of clip fine. Dispose of most goats following the fourth shearing, approximately, or be penalized on the clip price.

Texas has many commercial farm flocks of Angora goats, which are useful in controlling brush and undergrowth along draws and fence rows, in rough pastures and around the edges of fields. Goats are easily handled under farm flock conditions and do not require much attention.

Selecting Angora Goats

Breeders have developed a guide to judge Angora goats. It allots 50 points to body conformation and size, and 50 points to fleece. See Table 2.

Size in the Angora goat is important in maintaining strength and vitality. Goats tend to lose
size and vigor when too much emphasis is placed on fleece. A yearling buck should weigh at least 80 pounds and a yearling doe, at least 60. Size at maturity varies greatly, depending on amount of feed available during growth.

It is impossible to determine the constitution and vigor of an animal by looking at him. Animals with a wide, deep chest, full heart girth and full spring of ribs usually are vigorous and have a strong constitution.

Goats should have medium length of leg with good width and depth of body. They should have fairly good length of body and not be short and dumpy. The back should be straight and strong with adequate width across the back and loin. A broad loin is essential to the development of strong Angora goats.

When bred for mohair quality, Angora goats may lack size of body and bone. Bone size, indicated by bone development below the knees and hocks, usually indicates the animal’s ruggedness. Bones should be clean and proportionate to the animal’s size. Straight legs should be placed squarely under the animal.

Angora breed type is indicated by head, horns, ears and color markings. White hair on the face and lower parts of the legs should be free from colored fibers. Freckles or brown spots in the skin around the nose are not objectionable. Horns are widely set and on a buck should spiral outward and backward. Black horns disqualify an animal for registration.

An important point in considering the fleece of the Angora goat is absence of kemp. Kemp fibers are large, chalky white hairs. They are commonly found at the base of the neck, along the backbone, around the tail and often on lower parts of thighs or britch. Kemp is highly undesirable to manufacturers because the fibers are brittle, and take dye and reflect light differently from true mohair.

The Angora goat should have a bright fleece of white mohair that is uniform in fineness and length from front to rear. The animal should be covered uniformly except for the face below the eyes. See figures 2 and 3.

Fine mohair generally is more desirable and its uniformity from front to rear is important. The coarsest mohair usually is on the underside of the neck, so this is an important place to check for uniformity of fineness. Fleeces coarsen with age until the animal is 8 years old, at which time they tend to get finer again, because of loss of thriftiness in the animal. See figure 4.

A good Angora should produce 1 inch of mohair per month, producing a 6-inch staple for each 6-months clip.

Luster is the fiber’s brightness or shininess, or the way it reflects light. In good-quality mohair,
Table 2. Judging Angora Goats*

**Body: 50 points**

<table>
<thead>
<tr>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size and weight for age</td>
<td>8</td>
</tr>
<tr>
<td>Minimum weight — yearling buck 80 lb.; yearling doe 60 lb.</td>
<td></td>
</tr>
<tr>
<td>Constitution and vigor</td>
<td>8</td>
</tr>
<tr>
<td>Width and depth of chest, fullness of heart girth and spring of rib.</td>
<td></td>
</tr>
<tr>
<td>Conformation</td>
<td>11</td>
</tr>
<tr>
<td>Width and depth of body, straightness of back, width of loin, strength of back</td>
<td></td>
</tr>
<tr>
<td>Amount of bone</td>
<td>8</td>
</tr>
<tr>
<td>Indicated by size of bone below knee and hock. Should be clean and proportionate to size of animal. Strength of feet and legs.</td>
<td></td>
</tr>
<tr>
<td>Angora breed type</td>
<td>15</td>
</tr>
<tr>
<td>Indicated by head, horns, ears, color markings; small freckles not objectionable. Horns should be widely set on a buck and spiral outward.</td>
<td></td>
</tr>
</tbody>
</table>

**Fleece: 50 points**

<table>
<thead>
<tr>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniformity and completeness of covering</td>
<td>8</td>
</tr>
<tr>
<td>Fineness, length, type of lock and covering; adequate covering of mohair over entire body, neither too much nor too little on face.</td>
<td></td>
</tr>
<tr>
<td>Luster and oil in fleece</td>
<td>8</td>
</tr>
<tr>
<td>Good, bright type of mohair.</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>8</td>
</tr>
<tr>
<td>Number of fibers per unit of area, determined by amount of skin exposed when fleece is parted.</td>
<td></td>
</tr>
<tr>
<td>Fineness of fleece</td>
<td>20</td>
</tr>
<tr>
<td>Finer mohair generally more desirable.</td>
<td></td>
</tr>
<tr>
<td>Character of fleece</td>
<td>6</td>
</tr>
<tr>
<td>Refers to type of lock. Should be uniform over entire body, either flat, ringlet or web.</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

100

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**Physical disqualifications**

All blue or black horn or hoof, deformed mouths, broken-down pasterns, deformed feet, crooked legs (including cow-hocked), divided scrotum or abnormalities of testicles, closely set distorted horns, sway back.

**Fleece disqualifications**

Excessive kemp, colored hair, "sheepy" fleece, straight beard-type hair in fore-top or on back.

*Issued by the Texas Angora Goats' Association.*
Table 3. Points to consider when selecting breeding animals.

**Age.** Breeding animals 8 years or older are decreasing in mohair and kid production abilities.

**Uniformity of fleece.** Give this point maximum selection pressure. More fleece uniformity in Angora goats is currently essential, so discard those lacking uniformity from the breeding flock.

**Conformation.** Do not keep animals with poor conformation for breeding purposes because of possible weaknesses in constitution and vigor.

**Size.** Since size may affect the constitution and vigor of the animal, small goats usually are not desirable breeding animals.

**Fertility.** Give this a great deal of selecting pressure, also. Discard poor or irregular breeding does. Give preference to does that produce multiple young. Mark "dry" does the first time; sell them the second time.

**Short staple length.** Shortness is undesirable because of possible rapid decline in production.

**Light fleece weight.** Avoid light weight because mohair is still sold by the pound. Fleece weight is highly heritable.

**Density.** Eliminate animals with light, fluffy fleeces from the breeding flock because this affects total fleece weight and mohair quality.

**Quality of mohair.** Quality refers primarily to fineness. Discard animals with coarse fleeces.

**Kemp or colored fibers.** Remove animals possessing these defects from the breeding flock.

Luster is highly developed and is one of the most desirable characteristics of mohair as a textile fiber.

Mohair should feel soft rather than wiry or harsh to the touch.

Natural oil in fleeces is desirable to the condition, feel and appearance of the fleece. They should contain enough oil to protect from weathering and to preserve the natural quality of the fleece. Oil in the fleece absorbs heat in summer and cold in winter, adding to the animal's discomfort.

Fleece of the Angora goat should be dense, determined by number of fibers per unit of area. It is difficult to measure but may be estimated two ways. More skin exposed when the fleece is parted indicates less density. Grab a handful of mohair on each side of the animal and lift. Fuller handfuls and heavier weight indicate more mohair.

**Character** of fleece refers largely to the type of lock. This is more important to registered breeders than to commercial producers. Regardless of lock type, fleece should be uniform over the entire body.

For registered breeders, disqualifying characteristics include deformed mouths or feet, deteriorated pasterns, extremely crooked legs, "sheepy" fleece, testicle abnormalities, closely-set and distorted horns and off-colored fibers.

**Equipment**

Little equipment is needed for producing Angora goats. A protecting shed is the most essential item 4-6 weeks following shearing. A type commonly used, made of corrugated metal, is 6 feet high in front, sloping to 4 feet in the rear and open to the south. It protects goats from chilling until they grow sufficient mohair to protect themselves.

Tight fences are necessary. Angora goats will crawl through a hole, but rarely attempt to jump over. Net wire is the most desirable goat fence. Ordinary 4-wire, barbed wire fence can be made
goat-proof by adding several wires and using stays between posts. Position wires less than 6 inches apart near the bottom, increasing distance between the higher wires.

Sheep feed troughs and salt feeders also are satisfactory for goats. Pens and corrals used for working sheep can be used for working goats. Cattle pens may require tightening to prevent goats from crawling through.

Calendar of Operations

. . . The Breeding Season

The Angora goat is seasonal in its breeding habits. Does come in season in the fall and kid in the spring. This characteristic is so well established in Angoras that many ranchmen leave bucks with does year around. Others turn bucks in with does during October/November, and the does kid in March/April. Some ranchmen prefer earlier kidding. The gestation period varies from 147-155 days, an estimated length of five months.

Does per buck vary with size, roughness and brushiness of pastures. Three to four bucks per 100 is the usual rate for good breeding.

Flush or settle does by putting them on a rested pasture or supplementing their grazing with $\frac{1}{4} - \frac{1}{3}$ pounds per head daily of corn or range cubes. To condition them, feed bucks supplements such as whole oats 3-4 weeks before placement with does.

Green grazing during the breeding season is unbeatable for excellent breeding, kid crops and mohair clips.

Angora does abort easier than most animals. Keep them in good condition during the gestation period to help control abortion.

Do not use buck kids for breeding purposes because they are not sexually mature. Use only yearling or older bucks. See Table 3 for considerations in selecting Angora goats for breeding purposes.

. . . Kidding Time

The trend in Angora goat production is toward a hardy animal requiring less care, particularly at kidding time. Most commercial producers kid does in the pasture. A common practice at kidding time is to lock the gates of pastures and allow nature to take its course. Keep the does in good condition or they may not claim their kids.

Death loss may occur in this type program, eliminating less hardy individuals.

One ranchman selected for kid production by selling does that did not raise kids. In 3 years he
developed a doe flock that produced a 100 percent kid crop in pasture.

Many producers still kid on the stake and use kidding boxes. Number or mark does and kids alike so pairing is easy. Tie the kid’s fetlock joint to a stake with 15 inches of rope carrying swivel and loop. Stake the kids, with boxes for shelter, 10 feet apart. Allow does to day-graze in an adjoining pasture; pen and pair them with their kids in the evening. See figure 5.

A modification of this system is called pen kidding. Mark does and kids for easy pairing, but allow kids to run loose in a fair-size pen with shed access. In the evening when the does return from grazing, see that they claim their kids. If a doe fails to claim her kid, tie or pen them together.

Kids accompany does to pasture when they are about a month old. Place a partition about 18 inches high in the pen gateway. The does jump over to go to pasture, leaving the kids in the pen. When the kids are able to jump the partition, they are considered large enough to accompany the does.

Kidding on the stake or in the pen usually is practiced by registered breeders because they need to keep records of the sire and dam for registration.

...Care of the Newborn Kids

New-born kids usually are strong and thrifty. After nursing and filling their stomachs they can withstand cold weather and adverse conditions.

Do not handle new-born kids more than necessary, since this may cause does to disown them. If the kids are weak they may need assistance in nursing the first time. Large teats are difficult for the kids to nurse, so eliminate these does from the breeding flock.

Does sometimes fail to claim their kids because of poor physical condition or bad weather. When this happens, confine both to a small pen for several days until the doe claims the kid. If necessary, hold or tie the doe and permit the kid to nurse. After several days the doe usually accepts the kid.

In especially stubborn cases, the doe may be given tranquilizers at the rate of 1/10 milligram per pound of body weight. A veterinarian should prescribe tranquilizers because an overdose can produce depression and other adverse symptoms. Many times does that have lost their kids can be persuaded to accept a twin or orphan this way.

Orphaned kids can be raised on a bottle, using cow’s milk. Provide them with colostrum by allowing them to nurse a doe that has just kidded. The cow milk should be high in fat content. Feed young kids a small amount at least four times daily for 2 weeks, after which feedings can be reduced to three times daily. Frequent feeding of small amounts prevents a “pot-bellied” condition
common to orphaned kids. Put the kids on grain at about 2 weeks of age and they will soon be eating regularly.

A disadvantage in bottle-feeding kids is that they may become nuisances. They do not fear people and usually are difficult to handle in a range flock.

. . . Feed Requirements

Goats which have access to a wide variety of brush, weeds and grass do not need supplemental feeding. However, range conditions often become so severe that supplemental feeding is necessary. Lack of green feed in winter makes supplemental feeding advisable.

A wide choice of feeds may be used to supplement grazing. Many ranchmen feed pelleted feeds; 20 percent protein range cubes are popular. Other ranchmen prefer to feed shelled yellow corn. Corn usually is fed on the ground with little waste. See figure 6.

Feeding amounts vary with the range feed available and the goats' condition, but usually is 1/4-1 pound per head daily.

In large, rough and sometimes brushy pastures, hand feeding is impractical, so grain and meal mixtures with salt inhibitor are fed in self-feeders. The proportion of concentrates to salt varies with the amount of feed the goats should consume. The proportion of concentrates to salt usually is 3, 4 or 5 to 1.

Two practices may be used in feeding salt and concentrate mixtures. Locate the self-feeders near water and use a higher proportion of salt, thereby saving the animals' energy in walking to and from water. Or locate the self-feeders a mile or more from water and use less salt, such as 7 parts concentrates to 1 part salt. The animals will consume no more of this mixture than the 3 to 1 mixture placed next to the water. This way, the animals obtain more concentrates and less salt and better utilize the feed and pasture.

A popular mixture is 1 part cottonseed meal, 3 parts ground grain and 1 part salt. Many other mixtures use alfalfa and other forms of ground roughage. Good results can be obtained with many mixtures depending on other management practices. A roughage should lower the cost of ration and proportion of salt.

Some ranchmen prefer to feed roughages such as alfalfa, sorghum, peanut, Sudan or Johnson-grass hay. The amount varies with pasture and animal conditions, with a minimum of 1 pound per head daily.

Live oak brush often is cut for goats. It usually is cut leaving a stump about 3 feet high, which will sprout and provide additional browse under favorable conditions.

Goats also eat singed pricklypear and tasajillo. Some animals become chronic pear eaters and eat raw pear or tasajillo, causing sore mouths and
difficulty in grazing. An excellent ration for goats is 1/4 pound cottonseed cake per head daily and all the singed pricklypear or tasajillo they want.

... Marking and Castrating

Time of marking and castrating varies more among Angora goats than other classes of livestock. Some ranchmen mark and castrate when most of the kids have been born, or when the oldest kids are 1-1/2 months old.

Others mark the kids in spring and castrate in November, December or January. This lets the kids develop faster and grow more horn. When castrated at 6-8 months of age, the wether's horns are more like those of a buck, which facilitates separating muttons and does when run together. Ranchmen running only wether goats usually prefer goats castrated at 6-8 months of age.

Castration is done with a knife or Burdizzo. With a knife, cut off the lower third of the scrotum and pull out the testicles. This is recommended for castrating young kids. When the Burdizzo is used on small kids there may be "slips" or misses causing these animals to become staggy.

The Burdizzo is used more successfully on older animals. Use it on one side of the scrotum at a time and do not injure the dividing membrane in the scrotum. The Burdizzo is bloodless and causes no external wound, but is slower and more "slips" occur.

Marking is strictly for identification. Ear tags are unpopular because they are pulled out in the brush. Most registered breeders use a system of ear notching and tattooing. See figure 7.

The approved system of marking registered Angora goats includes these specifications: A notch in the lower edge of the left ear represents 1; in the upper edge, 10; and in the tip of the ear, 100. A hole punched in the left ear represents 1,000. Similarly, a notch in the lower edge of the
right ear represents 3; in the upper edge, 30; in the tip of the ear 300 and a hole in the ear, 3,000. In this manner a goat can be marked with any number, and with no more than 3 notches in any ear section.

The same number notched in the animal's ear should be tattooed inside the ear.

Some ranchmen use a fire brand on the nose or cheek. Others paint the base of the horns, but paint may deteriorate the horns and cause them to break easily.

Other ear marks include swallow fork, underbit, overbit, over slope, under slope, crop and various combinations of these marks. Marks should be registered in the county of the ranch’s location.

. . . Weaning the Kids

Weaning usually follows fall shearing to avoid another gathering. Leave the kids in the pasture where they were reared and move the does to another pasture, so the kids will be familiar with the pasture and know where to water.

Or move the kids to a small pasture or trap and leave a few gentle does or wethers with them. Take advantage of weaning time to gentle the kids and teach them to eat in case supplemental feeding becomes necessary.

By fall shearing time, most kids are weaned. Most of their shrink has resulted from stress of being separated from their mothers.

. . . Selecting for Greater Production

A system of selection and breeding is necessary for improving Angora goat production. Classing does according to production is profitable. Larger does with longer staple, denser fleeces and more complete mohair covering usually are the strongest and best mothers. These selections are best made just before fall shearing. Dry does can be separated and given special consideration.

By visual selection, does and bucks can be classed into two or three groups according to production. Mating the best bucks and does increases chances of getting even higher-producing animals.

The second-best does are mated to the second-best bucks and only the best doe kids are kept for replacements.

The third group of does should be sold, or bred to the third group of bucks, and all the kids sold.

One flock of goats handled in this manner showed the following results:

<table>
<thead>
<tr>
<th>Group</th>
<th>No. Head</th>
<th>Fall Shearing lb.</th>
<th>Spring Shearing lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>129</td>
<td>5.03</td>
<td>6.19</td>
</tr>
<tr>
<td>2</td>
<td>131</td>
<td>4.06</td>
<td>5.95</td>
</tr>
<tr>
<td>3</td>
<td>213</td>
<td>3.33 (This group was sold after fall shearing.)</td>
<td></td>
</tr>
</tbody>
</table>

Doe kids kept for replacement sheared an average of 5 pounds in the spring, an excellent fleece weight for yearling does.

Additional information on selective breeding programs may be found in Texas A&M Agricultural.
Extension Service publication MP-385, SELECTING ANGORA GOATS FOR INCREASED MOHAIR AND KID PRODUCTION.

Shearing

Angora goats usually are shorn twice each year in Texas. Spring shearing starts in February in the southern counties and lasts through April in the northern counties. Fall shearing begins about mid-July and lasts until the first of October.

Separate the kids from the older goats for fall and spring shearing. Pack the kid and adult mohair separately and label it properly. Finer-haired adult goats are sheared separately from coarser-haired goats in many flocks.

Provide a good clean place to shear. Clean out and wet down all pens. When sheep and goats are sheared together, shear sheep first.

Some ranches have permanent concrete shearing floors while others provide wooden shearing floors. If the ranchman does not have a shearing floor, he should hire a crew equipped with portable shearing boards.

Require the shearers to use new lubricating oil on their shearing heads. Burned lubricating oil is difficult to scour out of mohair.

Some mohair buyers will not purchase mohair packed in plastic bags, so pack mohair in burlap bags.

Keep individual fleeces together as much as possible and pack the bags firmly and uniformly. Bags of adult mohair should weigh 280-300 pounds. Since kid mohair is finer, more can be packed into a bag, and it should weigh 300-320 pounds.

Do not shear goats when mohair is wet or damp. Store bags in a clean, dry place and haul in clean trucks or trailers. Bags should not touch the ground after being packed.

Cold driving rains for as long as 6 weeks after shearing cause the heaviest death losses in Angora goats. This hazard is the motive for retaining a "cape" on goats at shearing time. The cape is a strip of mohair 3-4 inches wide down the goat's back. It protects the goat from the weather after shearing, but may not be sufficient in extremely severe weather. Most capes are left in the spring, since the weather usually is more severe during that season. See figure 8.

Capes present undesirable problems to the warehousemen. If capes are left until fall shearing, a percentage of long mohair is produced in the clip. If it is sheared off after 6 weeks, a percentage of short mohair is produced. Buyers prefer the capes being sheared off because short mohair is more desirable than 12 months' mohair. Some ranchmen think that reducing the risk of death loss offsets the disadvantages of caping.

Some ranchmen provide raised combs for shearers to use on goats. Raised combs have runners built up so they leave 1/4-1/2 inch of stubble on the goat. This gives about as much protection as the cape and eliminates undesirable staple length.

Fig. 8. These does have been sheared, leaving a cape down the back.
Shearing with raised combs is slower and more difficult, but ranchmen pay a slight premium for shearers to use the high runner combs.

For additional information on preparing mohair for market see Agricultural Extension Service FACT SHEET L-869.

... External Parasites

Five species of lice are found on Texas goats. Two bloodsucking species are called blue lice, two biting species are red lice, and the fifth is a biting louse called yellow louse.

Lice live on goats year around and spread among individuals or herds by contact. A clean herd can become infested by grazing on a pasture previously grazed by lousy goats. Lice can survive off goats 3-18 days.

Lice are usually more abundant in winter and spring, when they usually do the most damage. Heavy infestations of lice will cause goats to shear lighter fleeces of poorer quality. Usually the mohair will lack strength, quality and luster.

They usually concentrate on the under parts of the goat, in the fore flanks, around the udder or scrotum, belly and under the neck. Spraying or dipping with recommended livestock sprays usually will control lice.

Two types of spray materials, the chlorinated hydrocarbons and the organic phosphates, are commonly used to control lice on goats. Lice have been known to build up resistance to certain sprays. When this occurs, switch to a different type spray.

For best control, spray goats out of the shearing pen and again in 12-18 days, preferably in spring and fall. See figure 9.

For additional information on the control of external parasites see Extension publication MP-691, GUIDE FOR CONTROLLING EXTERNAL PARASITES OF LIVESTOCK AND POULTRY.

Many livestock sprays are dangerous to humans. Follow these few safety rules:

- Do not exceed the recommended strength of the solution.
- Do not mix with the hands.
- Spray with the wind; not against it.
- Do not spray in a shed or building.
- Bathe and change clothes as soon as possible after spraying.

Dipping is more effective in controlling lice since the animal is completely immersed. It treats the under portions of the animal difficult to reach by spraying.

Dipping is difficult and more expensive because of the additional expense of the dipping vat. More insecticide is required to charge the
dipping vat than to charge the tank for spraying. There is no method for determining the strength of the solution in the dipping vat with most of the new insecticides.

. . . Internal Parasite Control

Internal parasites are a serious problem with Angora goats, especially in wet years.

Good management and physical condition of the animals are important factors in controlling internal parasites. Accomplish this through proper pasture management, supplemental feeding when needed and good internal parasite control measures.

Continuous grazing of a pasture by sheep or goats causes a buildup in the infestation of internal parasites. Rotation of pastures decreases the number of infective larvae present.

Careful observation of the animals is necessary to determine when treatment is needed. Phenothiazine and thibenzole are effective drenches for internal parasites. Thibenzole is especially effective in control of the hair worm or bankrupt worm while phenothiazine is especially effective in controlling the common stomach worm. Several other good anthelmintics are available, including copper sulfate, carbon tetrachloride and tetrachlorethylene.

Internal parasites can build up a resistance to certain anthelmintics, especially when fed at a low level in feed or salt. Change anthelmintics occasionally to prevent building up resistance.

Internal parasitism may be confused with spear and needle grass damage because the symptoms are similar.

Common symptoms of excessive stomach worm infestation include scouring and anemia, shown by paleness of the membranes around eyes and paleness of lips and gums. Bottle jaw or a swelling on the underside of the jaws may occur in advanced cases. Eating dirt or displaying a depraved appetite also may be evident.

. . . Pasture Management
For Mohair Production

Vegetable defect, in the form of needle and spear grass, grass burs, cockle burs, horehound and other vegetable contaminants, is one of the greatest drawbacks to mohair production. Much of this could be avoided by careful pasture management. Graze pastures containing one or more

Fig. 9. Spraying goats out of the shearing pen for external parasite control.
contaminants during the growing season and before seeds mature. Then move the goats to pastures containing few contaminating plants or to fields or temporary pastures.

Early kidding, accompanied by early shearing of kids, often keeps contaminants out of fleeces, helps kids develop and prevents spear and needle damage. In some cases changes in shearing dates of adult goats may cut down on vegetable contamination.

Undertake pasture improvement programs, including the control of noxious plants.

. . . Artificial Oiling

Some ranchmen apply oil within 30 days after shearing to control external parasites, giving ample time for it to work out of the fleece before the next shearing.

Oil can be used before shearing to increase clip weight. This causes buyers to discount or purchase mohair on a shrinkage basis. Mohair will shrink normally 12-15 percent in weight, but some artificially oiled mohair shrinks 30-50 percent. Artificially added oils are more difficult to scour from mohair than natural oils. Burned lubricating oil is particularly difficult to remove. It usually leaves mohair dark and dingy, and is harmful to the fiber luster. Do not use artificial oiling to increase fleece weight.

. . . Water

Angora goats thrive better with access to abundant clean water. They should never have to travel more than 1/2 mile to water. Goats prefer running water.

They require 1 quart to 1 gallon per head daily, depending on moisture content of pasture vegetation, weather conditions and amount of dew.

Because of their playful nature and love of climbing, kid goats may fall into low storage tanks or water troughs and drown. Place rocks in troughs so the animals can climb out. Or construct water troughs and storage tanks so animals cannot get into them.

. . . Shade

Angoras thrive better with access to shade during the heat of the day. Natural shade is preferable to a brush arbor or other type of shade.

Marketing Angora Goats

Young Angora wethers usually are in demand by ranchmen interested in controlling brush sprouts on chained, rootplowed or bulldozed land. They also are used in controlling the spread of shinnery.

When mohair production begins to decline on the aged wethers, ranchmen usually ship them to auction sales specializing in goat handling. San Antonio is the largest goat market in this country. Both San Antonio and San Angelo quote receipts and prices on goats.

Some auction sales specialize in handling goats for stocker and packer purposes, the largest being
in Goldthwaite, Uvalde, Junction and Lampasas. Other auction sales handle goats but do not specialize in them.

Most goats sold on the San Antonio market are processed locally. The meat finds a ready market among the Mexican population. Goat meat has been canned at San Antonio and prepared for shipment to foreign countries.

_Cabrito_ is meat from 5-to-6 months old kids weighing 30 to 40 pounds alive. It is regarded as a delicacy and highly prized for barbecuing in the Southwest.

Further information on marketing goats may be obtained from Texas Agricultural Experiment Station Bulletin 844, _MARKETING TEXAS GOATS_, available from the Texas A&M University Department of Agricultural Information.

**Marketing Mohair**

About 75 Texas warehouses handle wool and mohair. Some handle these products on consignment only while others buy on their own account and handle consignments. Handling charges vary but competition keeps them in line.

Several warehouses provide grading services so mohair may be sold on a graded basis. Producers with good-quality clips profit by selling mohair on a graded basis.

Grading also gives the producer valuable information about his clip, which he can use to improve his breeding program. Many warehouses handle livestock supplies, feed, salt and minerals, or serve as lending agencies and give advances on unsheared wool and mohair.

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San Angelo, Texas.
Suggested Reading


*Sheep and Goat Raiser, The Ranch Magazine*, San Angelo, Texas. Published monthly.
