Chapter 10
General Herd Management

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This chapter includes a discussion of the following general management practices of a meat goat operation.

- animal identification
- breeding seasons
- castration
- disbudding
- hoof trimming
- herd management calendar
- body condition score

Some of these practices are mentioned in other chapters, but this chapter will present them in greater detail.

Animal Identification

Each goat in an operation should have some method of being identified. Animal identification allows a producer to keep and maintain production records such as kidding percentages, weaning percentages, health schedules and problems and management practices. Several identification systems are available. The system used depends on the size of the herd, environmental conditions, and the primary purpose for identifying the individual animals.

Ear Tags

The most common method to identify an animal is to use an ear tag. Ear tags come in a multitude of colors, shapes and sizes. Ear tags can come either pre-numbered or blank. The type of ear tag used depends on the individual producer's preference and the primary reason for using the ear tag.

The ear tag comes in two parts (Figure 10-1):

- A flat part (where the number goes) with a female end.
- A round button part with a steel sharpened shank.

This shank is used to pierce the ear and then lock into the female portion of the flat part of the tag. These tags are semi-permanent. They are meant to stay in until the producer wishes to cut them out. Sometimes these tags will get accidentally ripped or cut out. Some producers use two ear tags for this reason. For a demonstration of how to place an ear tag into the ear of the animal visit OSU's Meat Goat YouTube Channel (youtube.com/user/OSUMeatGoat) for an instructional video.

Figure 10-1. Ear tags and tagging pliers.

Scrapie Tagging

The USDA Scrapies program was developed to help eradicate scrapies from U.S. sheep and goat herds. Scrapie is a degenerative and eventually fatal disease that affects the central nervous systems of sheep and goats. Because of this program, goat producers must identify their goats with a scrapie ear tag to sell their goats (Figure 10-2). These tags also can be used for a producer's animal identification program.

Who may identify sheep and goats?

- producers

Figure 10-2. Official Oklahoma Scrapie ear tag.

- licensed livestock dealers
- approved livestock markets

What animals must be identified?

All sexually intact sheep and goats of any age being moved for any of the following reasons:

- sale
- exhibitions
- slaughter
- change of ownership

Unidentified animals arriving at livestock auctions and special sales must be identified before the animal can sell. Typically, a livestock auction will place a scrapie tag in the goat's ear and charge the producer for the service.

Each of the following items qualifies as official scrapie identification:

An Official USDA Tag

- How are official USDA ear tags obtained?
- Tag request forms can be obtained from the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF) at 405-522-6131.
- The tag request form must be completed and signed. Incomplete forms will not be processed.
- The form is returned to ODAFF, Animal Industry Services. The address is on the form.
- Tagging pliers are provided with the first order; any additional pliers can be purchased from ODAFF.
- Producers also can order scrapie tags from ear tag manufactures such as Premier and AllFlex. This would allow producers to use only one tag for both identification and scrapie.


Figure 10-3. Tattooing pliers and ink.

Legible Official Dairy Goat Registry Tattoo

- Tattooing is another method of individually identifying animals. Tattooing involves using a set of tattooing pliers and ink, shown in Figure 10-3, to permanently place an alpha-numeric number in the goat's ear. The tattoo ink is forced into ear by the sharp needle-like pens of the tattoo pliers. If done correctly, this process is permanent, but the goat must be caught for the number to be seen. Some breed associations require tattooing as part of the registration process (only if the animal is accompanied by a registration certificate).

Legible Flank or Tail-web Tattoo

- For animals not suitable for ear tagging, a legible flank or tail-web tattoo containing the premise ID and the individual animal number. **NOTE:** Illegible tattoos are considered the same as no identification.

Scrapie Flock Certification Program Tag

- The Scrapie Flock Certification Program is a voluntary five-year certification program for those producers who want to certify their flocks/herds are free of scrapie. The owner pays for the tags used for this program. They

may request a scrapie tag on the tag request form or call the Oklahoma USDA office 405-427-9413 for information about this program.
- Do animals have to be tested for scrapie? No official live animal test for scrapie exists at this time. Many owners have blood samples collected for genetic testing in their sheep to help them with selective breeding for resistance against scrapie. This genetic testing is paid for by the owner and is highly recommended for breeding flocks.

Breeding Seasons

A breeding season is the time of the year that the male goat (buck) is placed with the female goats (does) to impregnate them. The time of year selected for breeding depends on when the producers want to sell their goats. For example, if producers want to sell goats for the Easter market, they must breed their does to have kids in November. The gestation period of a goat is 150 days, or five months. For November kids, the does must be bred in June. Therefore, the buck needs to be placed with the does around June 1.

The length of the breeding season also depends on the producers' production goals. By having pre-defined breeding seasons, producers can target marketing opportunities, select nutrition programs that fit the plane of nutrition needed, and make it easier to maintain routine management practices. Some producers allow the buck to run with the does year round. This type of breeding season limits producers' marketing and planning options because the kids are being born yearround. Also, a 12-month breeding season makes it more difficult to determine kidding percentages and other vital performance records. By using a limited breeding season, producers can plan kidding, weaning and marketing times, plus easily identify problem production animals not breeding on a regular basis.

Table 10-1 is a gestation table that has the corresponding dates between the date bred and the expected kidding date.

Weaning

Weaning is the act of removing the kids from the does. Most kids are weaned at 60 to 90 days of age. In some cases, the doe will wean her kid(s) before this time if she is under unusual stress. Before weaning though, producers need to prepare the does for slowing down their milk production:

- Several days before weaning, stop grain feeding the does.
- Beginning on the day the kids are weaned, withhold water from the does for 24 hours to help stop milk production
- Watch the does carefully for several days for signs of redness on their udders or for does obviously suffering pain from full udders. In some cases, the pressure on the udder can be relieved by milking out a small amount of milk. However, the doe should not be milked dry, since that will cause her to continue producing milk.
- Feed does a low-quality, dry hay until they have completely dried off.

Kids may continue to eat from a creep feeder for a few days after weaning. After that point, they can be hand fed twice a day. Kids should receive a high-quality hay to go with their grain.

Shortly after weaning, producers may want to sort buck kids from doe kids and feed them accordingly. This procedure will prevent any early maturing doe kids from getting bred and help prevent smaller does from being pushed away from the feeder by larger bucks.

Castration

The decision to castrate, which is the removal of a male goat's (buck) testicles, depends on the producer's operation and marketing opportunities. Only top-quality bucks should be kept for breeding purposes. If a producer is not keeping a buck for reproduction purposes, the decision to keep the buck kids intact should be based on the producer's available markets. In some markets, buck kids are preferred over castrated males (wether kids), but in general, wethers are preferred.

Advantages

The advantage of castrating buck kids is that goats can reach sexual maturity at three months of age. By castrating, the producer eliminates the possibility of unwanted pregnancies. Also, wether goats are easier to handle. Young bucks can be very troublesome and difficult to handle.

Table 10-1. Gestation table.

Breeding Date	Due Date	Breeding Date	Due Date	Breeding Date	Due Date	Breeding Date	Due Date	Breeding Date	Due Date	Breeding Date	Due Date
Jan 1	May 31	Mar 3	Jul 31	May 3	Sep 30	Jul 3	Nov 30	Sep 2	Jan 30	Nov 2	Apr 1
Jan 2	Jun 1	Mar 4	Aug 1	May 4	Oct 1	Jul 4	Dec 1	Sep 3	Jan 31	Nov 3	Apr 2
Jan 3	Jun 2	Mar 5	Aug 2	May 5	Oct 2	Jul 5	Dec 2	Sep 4	Feb 1	Nov 4	Apr 3
Jan 4	Jun 3	Mar 6	Aug 3	May 6	Oct 3	Jul 6	Dec 3	Sep 5	Feb 2	Nov 5	Apr 4
Jan 5	Jun 4	Mar 7	Aug 4	May 7	Oct 4	Jul 7	Dec 4	Sep 6	Feb 3	Nov 6	Apr 5
Jan 6	Jun 5	Mar 8	Aug 5	May 8	Oct 5	Jul 8	Dec 5	Sep 7	Feb 4	Nov 7	Apr 6
Jan 7	Jun 6	Mar 9	Aug 6	May 9	Oct 6	Jul 9	Dec 6	Sep 8	Feb 5	Nov 8	Apr 7
Jan 8	Jun 7	Mar 10	Aug 7	May 10	Oct 7	Jul 10	Dec 7	Sep 9	Feb 6	Nov 9	Apr 8
Jan 9	Jun 8	Mar 11	Aug 8	May 11	Oct 8	Jul 11	Dec 8	Sep 10	Feb 7	Nov 10	Apr 9
Jan 10	Jun 9	Mar 12	Aug 9	May 12	Oct 9	Jul 12	Dec 9	Sep 11	Feb 8	Nov 11	Apr 10
Jan 11	Jun 10	Mar 13	Aug 10	May 13	Oct 10	Jul 13	Dec 10	Sep 12	Feb 9	Nov 12	Apr 11
Jan 12	Jun 11	Mar 14	Aug 11	May 14	Oct 11	Jul 14	Dec 11	Sep 13	Feb 10	Nov 13	Apr 12
Jan 13	Jun 12	Mar 15	Aug 12	May 15	Oct 12	Jul 15	Dec 12	Sep 14	Feb 11	Nov 14	Apr 13
Jan 14	Jun 13	Mar 16	Aug 13	May 16	Oct 13	Jul 16	Dec 13	Sep 15	Feb 12	Nov 15	Apr 14
Jan 15	Jun 14	Mar 17	Aug 14	May 17	Oct 14	Jul 17	Dec 14	Sep 16	Feb 13	Nov 16	Apr 15
Jan 16	Jun 15	Mar 18	Aug 15	May 18	Oct 15	Jul 18	Dec 15	Sep 17	Feb 14	Nov 17	Apr 16
Jan 17	Jun 16	Mar 19	Aug 16	May 19	Oct 16	Jul 19	Dec 16	Sep 18	Feb 15	Nov 18	Apr 17
Jan 18	Jun 17	Mar 20	Aug 17	May20	Oct 17	Jul 20	Dec 17	Sep 19	Feb 16	Nov 19	Apr 18
Jan 19	Jun 18	Mar 21	Aug 18	May 21	Oct 18	Jul 21	Dec 18	Sep 20	Feb 17	Nov 20	Apr 19
Jan 20	Jun 19	Mar 22	Aug 19	May 22	Oct 19	Jul 22	Dec 19	Sep 21	Feb 18	Nov 21	Apr 20
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Jan 26	Jun 25	Mar 28	Aug 25	May 28	Oct 25	Jul 28	Dec 25	Sep 27	Feb 24	Nov 27	Apr 26
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Mar 1	Jul 29	May 1	Sep 28	Jul 1	Nov 28	Aug 31	Jan 28	Oct 31	Mar 30	Dec 31	May 30
Mar 2	Jul 30	May 2	Sep 29	Jul 2	Nov 29	Sep 1	Jan 29	Nov 1	Mar 31		

Disadvantages

The disadvantage to castrating is that buck kids will grow faster than wether kids. Also, once the buck is castrated, the process can not be reversed.

Timing and Methods

Castration should take place at the youngest age possible, since the stress of castration can adversely affect growth in older animals and the chances of complications increase. Buck kids can be castrated as soon as the testicles descend into the scrotum (Figure 10-4). Three methods of castrating bucks are available: knife castration, the elastrator method (banding) or the emasculatome method.

Knife Method

The knife method is the surest method of castration. Items needed for knife castration include: a sharp knife or scalpel, soap and water, disinfectant, antiseptic and tetanus antitoxin.

The knife method involves the following steps:

1. Have an assistant hold the kid, roll it over onto its back and hold the back legs.
2. Make sure the scalpel or knife is clean by washing it in soap and water and then disinfectant.
3. Wash the scrotum with soapy water and disinfectant.
4. Push the testes up into the scrotum and cut the bottom one-third of the scrotum off. The testes should now fall below the bottom of the scrotum.
5. Grab one of the testes and pull downward. The testes will be slick and somewhat difficult to hold onto, so grab firmly. Pull downward until the spermatic cord breaks. If the kid is older than 6 weeks, this cord may have to be cut.
6. If any of the spermatic cord is hanging below the scrotum, it must be removed. This could be a source of infection if left alone.
7. Apply the antiseptic to the scrotum.
8. Administer the tetanus antitoxin.

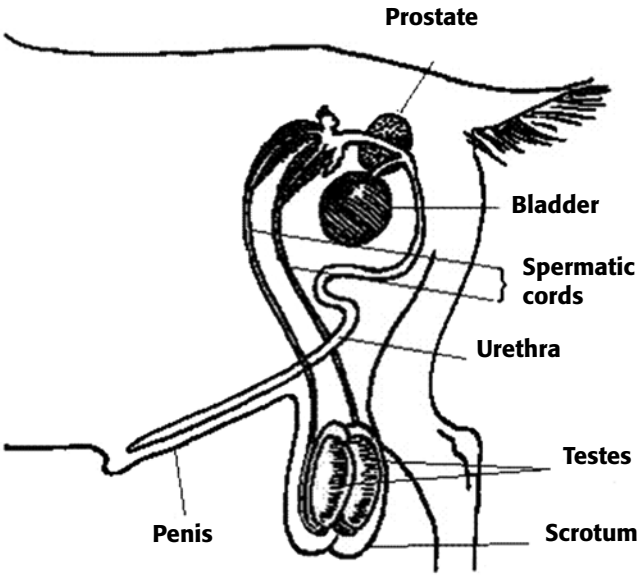


Figure 10-4. Goat buck reproductive organs.

Elastrator Method (Banding)

Another method of castrating buck kids is the elastrator method or banding. This involves putting a special rubber band around the base of the scrotum. This band will cut off the blood supply to the scrotum and testes causing them to slough off in 10 to 14 days. This method is more effective and less stressful to younger kids whose scrotal tissue is not well developed. The equipment needed is an elastrator (instrument used to apply the bands) and castrating bands. **NOTE:** Do not use household rubber bands.

The elastrator method involves these steps:

1. Have the assistant put the buck kid's head between their legs and then bend over and grab the back legs and lift up. This puts the testicles of the goat at a reasonable height and allows the goat to be restrained fairly easily.
2. Place the castrating band onto the prongs of the elastrator, shown in Figure 10-5. Turn the elastrator so that the prongs face the body of the goat. Squeeze the handle of the elastrator, expanding the castrating band, and place the band over the scrotum. The band will need to be placed at the base of the scrotum. Make sure the rudimentary teats are not caught in the band.
3. Work the scrotum so that both testes are below the castrating band. Do not place the band around only one testicle. The other testicle will remain in the body and the buck kid will be able to impregnate does. Once both testes are below the band, release the handle of the elastrator

Figure 10-5. Elastrator.

causing the band to constrict. Then pull the elastrator away from the goat. The band should stay in place. IMPORTANT: Make sure that both testes are below the band. If they are not, cut the band off and try again.

4. Administer the tetanus antitoxin.

For a video demonstration of how to castrate a buck kid using an elastrator (banding method), visit OSU's Meat Goat YouTube channel.

Emasculatome Method

The emasculatome method involves using a Burdizzo instrument to crush the spermatic cord and cut off the blood supply to the testes. This procedure causes the testes to atrophy (die), but the scrotum remains intact. The emasculatome method is known as the bloodless method since no cutting is required, and when done properly, the skin is not even broken. However, care must be taken to be sure that both cords are properly crushed.

The emasculatome method involves the following steps:

1. Have the assistant roll the buck kid onto its back and hold the back legs.
2. Wash the upper portion of the scrotum and disinfect it.
3. Grab the scrotum and work the testes down into the scrotum and the spermatic cord between your fingers. Place the jaws of the burdizzo on the upper scrotum, just below where it attaches to the body. Position the jaws so about two-thirds of the scrotum is crushed. Leave the burdizzo closed for 15 to 20 seconds. Open the jaws and move the burdizzo 1/2-inch lower and crush the other side of the scrotum. IMPORTANT: Make sure that the spermatic cords are between the jaws of the Burdizzo both before and after the jaws are closed.

Disbudding

Disbudding is the practice of removing the goat's horns. By removing the horns, the goats are less likely to get their heads caught in fences. It also makes it safer for children and older producers to work around the goats. If the goat kids are going to be show animals, some shows require the horns on wether goats be removed.

Disadvantages

The disadvantages to removing the horns is now the goats have no handles to grab when trying to catch them and some purebred associations require horns be left intact. By removing the horns, a producer is removing the goats' defense against predators. To disbud or not is a decision the producer will have to make.

The equipment needed to disbud a goat includes the following items:

- A disbudding box (shown in Figure 10-6).
- A disbudding iron.
- Leather gloves.
- Some type of metal accessory holder to hold the disbudding iron when not working on a goat is recommended. A holder helps conserve heat and reduces the risk of burning someone, other items being used or the dehorning iron's cord.

Disbudding Box

A disbudding box can be made or purchased. The diagram in Figure 10-6 shows the dimensions of the box. The box should be made from 3/8-inch plywood and the lid from a 1 by 8 inch board. The headpiece can be purchased at a local farm sup-

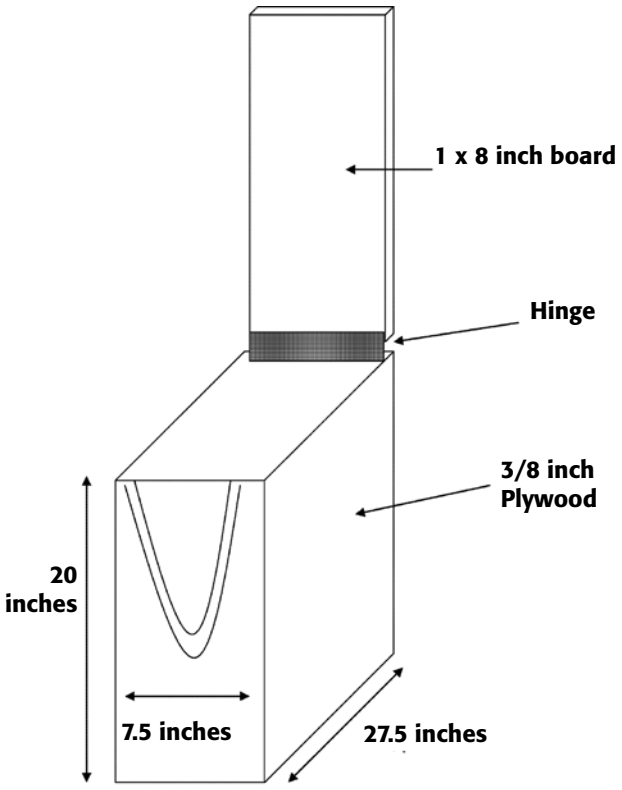


Figure 10-6. Disbudding box.

ply store or on the Internet. Not shown is the belly block that is inside the box. The belly block should be located 9 inches from the front of the box and 9 inches from the top of the box. This block keeps the goat kid from lying down in the box.

Disbudding Irons

A number of disbudding irons are available, and producers should always read the instructions. Some irons take longer to heat up and do not retain their heat as well as others. These irons work fine as long as the operator is patient.

Timing and Procedure

The best time to disbud goats is between two to four weeks of age or just as the horn is breaking through the skin. Once the horn becomes much bigger, it is more difficult to remove.

Disbudding includes the following steps:

1. Place the kid into the disbudding box.
2. Hold the goat's head across the rigid part of the nose.
3. Apply hot iron with medium pressure until a ring the color of copper encircles the horn – usually not more than 15 seconds. A risk of causing brain damage exists if the iron is left on the horn bud too long.
4. Repeat step 3 on the other horn.
5. Use the disbudding iron to remove the horns. Usually a scraping motion is most effective. If the horns are burned appropriately, the buds can be removed with very little effort.
6. Reapply the hot iron until the exposed bone is slightly yellow in color. Typically, four to six seconds is sufficient
7. Use the edge of the iron to cauterize any small bleeders.
8. Repeat steps 5 through 7 on the other horn bud.
9. Optional: Apply a topical antibiotic spray such as Furox®, Scarlet Oil®, or AluShield®, which will help repel flies and prevent infection.

For an instructional video demonstrating how to disbud a goat visit OSU's Meat Goat YouTube channel.

Hoof Trimming

Hoof trimming can be an important management task when raising goats. This task is often overlooked or not done in a consistent manner. Goats that do not have their hooves trimmed in a timely manner can experience a myriad of foot and leg problems. Goats that cannot walk cannot forage for food.

The amount of time between trimmings depends on many factors such as type of terrain, the goat's age, level of activity, nutritional level, and breed. Goats raised in confinement situations and fed relatively high amounts of concentrates require more frequent trimmings. Goats raised in hilly, rocky terrain and large acreages require less trimmings. Therefore, a goat's hoof should be trimmed on an as-needed basis.

After becoming familiar with how a hoof is supposed to look, producers will know when a goat's hooves need to be trimmed (Figure 10-7). Some producers time the hoof trimming with other activities such as vaccinations, deworming or kidding.

The easiest time to trim a hoof is after a rain or heavy dew. The hoof wall is much softer, therefore easier to cut. The idea behind trimming hooves is to correct the overgrown hoof and allow the goat to walk without any discomfort. A goat hoof wall should be parallel with the coronary band (Figure 10-8).

Hoof Shears

A set of sharp hoof shears (Figure 10-9) is needed for hoof trimming. These shears can be purchased at most farm supply stores or catalogs. Several types of shears are available, but the shears must be made specifically for hoof trimming. Any

Figure 10-7. Overgrown hooves.

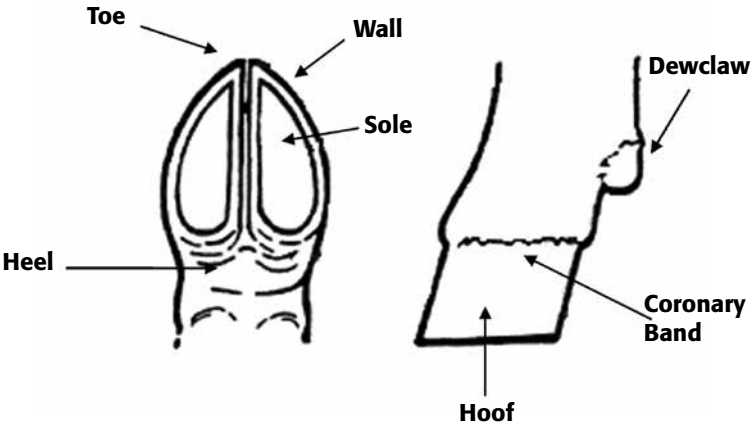


Figure 10-8. Parts of a goat hoof.

Figure 10-9. Hoof trimming shears.

other type of shears will not work. The best set is one that can be re-sharpened.

Optional equipment can include a rasp and hoof knife. Producers also may want to have some iodine, copper sulfate or turpentine available in case of hoof injury.

Procedure

1. Immobilize the goat.
   - Immobilization can be done in several different ways. One way is to have a goat squeeze chute. These chutes catch the goat's head and squeeze the goat so it cannot move easily. Most of these chutes also rotate, which allows the producer to have the goat hooves at a level that does not require bending. Having a squeeze chute allows the trimming to be performed by one person.
   - If a squeeze chute is not available, a milking or blocking stand can be used. Using a stand requires lifting the goat onto the stand.
   - Another method is to tie the goat's head to a fence or panel and the producer can squeeze the goat between themselves and the fence or panel. The producer can then bend over and grab the foot for trimming.
2. After immobilizing the goat, the hooves need to have all of the dirt cleaned from the sole and between the toes. This makes it easier to see what needs to be trimmed and the shears will not be dulled as badly while trimming.
3. Trim the hoof wall (Figure 10-10). The hoof wall may be folded over the sole of the hoof. Carefully pry it away from the sole and cut it off. Do not get in a hurry. By taking it slow and easy the producer runs less risk of cutting to deep and causing the hoof to bleed. Next, trim between the hooves where the heels meet. The heels are softer than the hoof walls. If some time has elapsed since the last trimming, the toes may need to be trimmed back. If producers have a question of how the hooves should look, they should compare the clipped hooves to those of a very young kid.

If the hoof is terribly overgrown, one trimming may not correct it. The hoof should be trimmed until the sole turns pink. Then, the producer should come back to that animal in one or two weeks and continue to trim in stages until a proper hoof shape can be obtained (Figure 10-11).

By keeping the goat's hooves properly trimmed, producers are able to minimize feet and leg problems and keep their goats looking and feeling healthier.

For an instructional video demonstrating how to trim hooves visit OSU's Meat Goat YouTube channel.

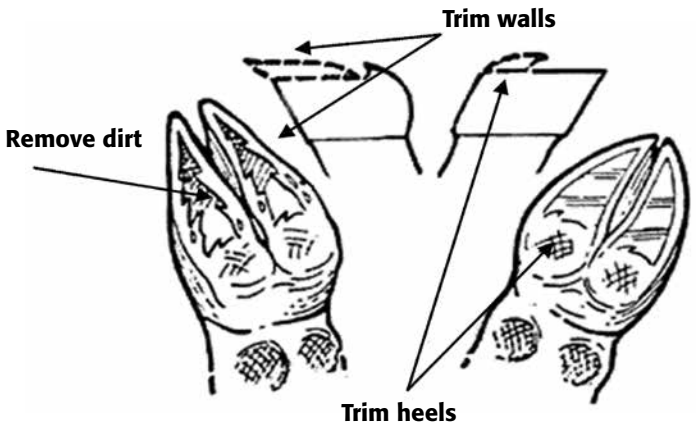


Figure 10-10. Remove all dirt from the sole and between the toes before trimming.

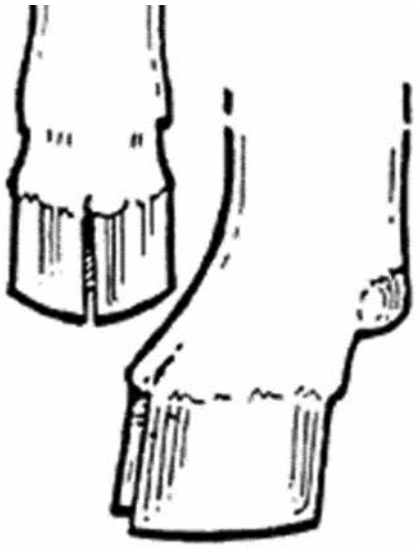


Figure 10-10. A Properly trimmed hoof.

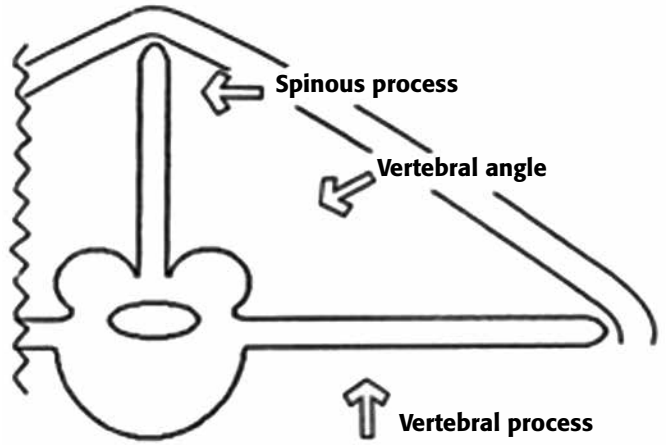


Figure 10-12. Parts of the loin. Spinous processes are the bones felt on top of the back. Vertebral processes are the ong bones horizontal to the sping. The vertebral angle is the triangle between the top of the spinous process, the edge of the vertebral process, and the skin. The muscle inside this angle is the longissimus or eye muscle, a roast, or part of a T-bone steak.

Body Condition Scoring

As the breeding season approaches, producers should be concerned with the body condition of their breeding does. Goats should not be allowed to become too thin or too fat. Failure in reproduction, low twinning rates, and low weaning rates will result if does are too thin. Overly fat does can suffer pregnancy toxemia.

Body Condition Scoring System

Figure 10-12 shows the loin structure of a goat, which is the region of the back between the ribs and hips. The descriptions tell what is felt on the loin with firm fingertip pressure. Also discussed are bones, or *tuber ischii*, the part of the pelvis located at either side of the vulva in does and the same location in bucks. Other versions of condition scoring describe fat padding on the chest floor and how it correlates with features included in this system.

Table 10-2 shows condition scores for the loin area with descriptions of the features, causes, problems, and solutions. Each of the five categories in Table 10-3 has a descriptive title and a score number. Padding over the ribs is never used to accurately judge body condition.

For an instructional video showing how to use the body condition scoring system visit OSU's Meat Goat YouTube channel.

References

Body Condition Scoring of Goats. Langston University. http://www2.luresext.edu/goats/research/bcshowto.html

Machen, R. Disbudding Kid Goats. PowerPoint presentation from Texas Cooperative Extension Service.

Machen, R. Hoof Trimming 101. PowerPoint presentation from Texas Cooperative Extension Service.

McKinney, T. Castrating Buck Kids. Langston University. http://ww2.luresext.edu/goats/library/fact_sheets/go4.htm

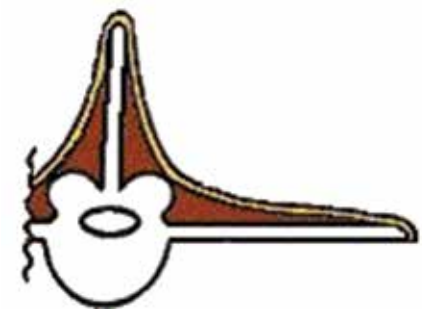
Stanton, T. All About Castrating and Urinary Calculi. 1999. Cornell University. http://www.ansci.cornell.edu/4H/meatgoats/meatgoatfs10.htm

USDA Scrapie Program. National Center for Animal Health Programs. http://www.aphis.usda.gov/vs/naphis/scrapie

Table 10-2. Body condition scores for the loin area.

Scores 1 through 3 represent muscle growth/expansion.
Muscle does not grow after score 3
Scores 4 and 5 represent fat accumulation.

1 POOR



- No muscle on edges of transverse process, bones very sharp, thin skin.
- The vertebral angle has little muscle and is very concave.
- Spinous processes are very prominent with no muscle in between.
- Sharp outline visible; no muscle between skin and bones.
- Very sharp. No padding.

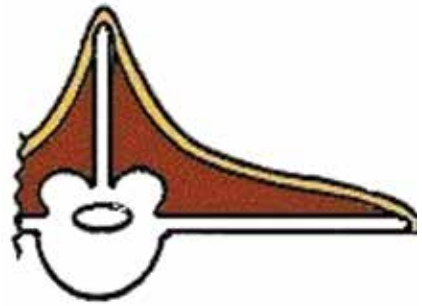
Features: The skeleton has little or no muscle. The hollows in the flanks below the loin are very concave.

Causes: Poor diet, disease, parasitism, lactation or any combination of these.

Problems: Slow growth rate in kids, stunting in growing animals, conception failure, weak or dead newborns, metabolic disease during pregnancy, very susceptible to disease.

Solutions: Better nutrition, management and herd health program; evaluate disease status.

2 THIN



- Muscle extends to the edges of transverse process; spacing can be felt between the vertebral processes, thin skin.
- Outline slightly contoured; light padding but bones still somewhat prominent and very easy to feel.
- Sharp, little padding.

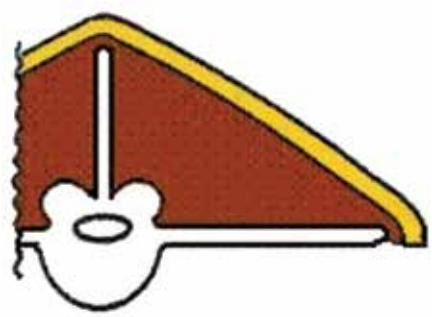
Features: The skeleton has some muscle. The hollows in the flanks below the loin are somewhat concave.

Causes: Poor diet, disease, parasitism, lactation or any combination of these.

Problems: Slow growth rate in kids and growing animals, metabolic disease, weak or dead newborns, susceptible to disease.

Solutions: Better nutrition, management and herd health program; evaluate disease status.

3 GOOD



Loin

Rump

Pins

- Muscle and subcutaneous fat covers edges of vertebral processes; individual bones are somewhat distinct.
- Smooth, without signs of fat; pelvic bones and spine are distinct.
- Slight pressure needed to feel the pin bones.

Features: Muscle over skeleton felt with gentle pressure. Firm pressure is not needed to feel bones. The hollows in the flanks are barely concave or are level with the surrounding area of the sides.

Problems: None. Maintain condition at 3 or slightly higher, depending on age and production status.

4 FAT

Loin

Rump

Pins

- Vertebral processes are indistinct and firm pressure is needed to feel them.
- The vertebral angle is rounded but not yet bulging over the spinous process.
- Spinous process spacing is difficult to detect; the spine is felt as a hard line.
- Heavily padded with fat; bones can only be felt with firm pressure.

Features: Very firm pressure needed to feel all bony structures.

Causes: Feeding in excess. Limited exercise.

Problems: Inhibited locomotion, easily tired, orthopedic abnormalities, dystocia and metabolic disease.

Solutions: Reduce plane of nutrition. Provide exercise.

5 OBESE

Loin

Rump

Pins

- Edge of the vertebral process and the spacing between is too fat to feel bones.
- The vertebral angle bulges over the level of the spinous process.
- The spine lies in the center of a groove of fat.
- Buried in fat the bones are very indistinct and hard to locate.

Features: The bones are covered with a thick layer of fat over the muscle and are very hard to feel.

Causes: Feeding in excess. Limited exercise.

Problems: Inhibited locomotion, easily tired, orthopedic abnormalities, dystocia and metabolic disease.

Solutions: Reduce plane of nutrition. Provide exercise.