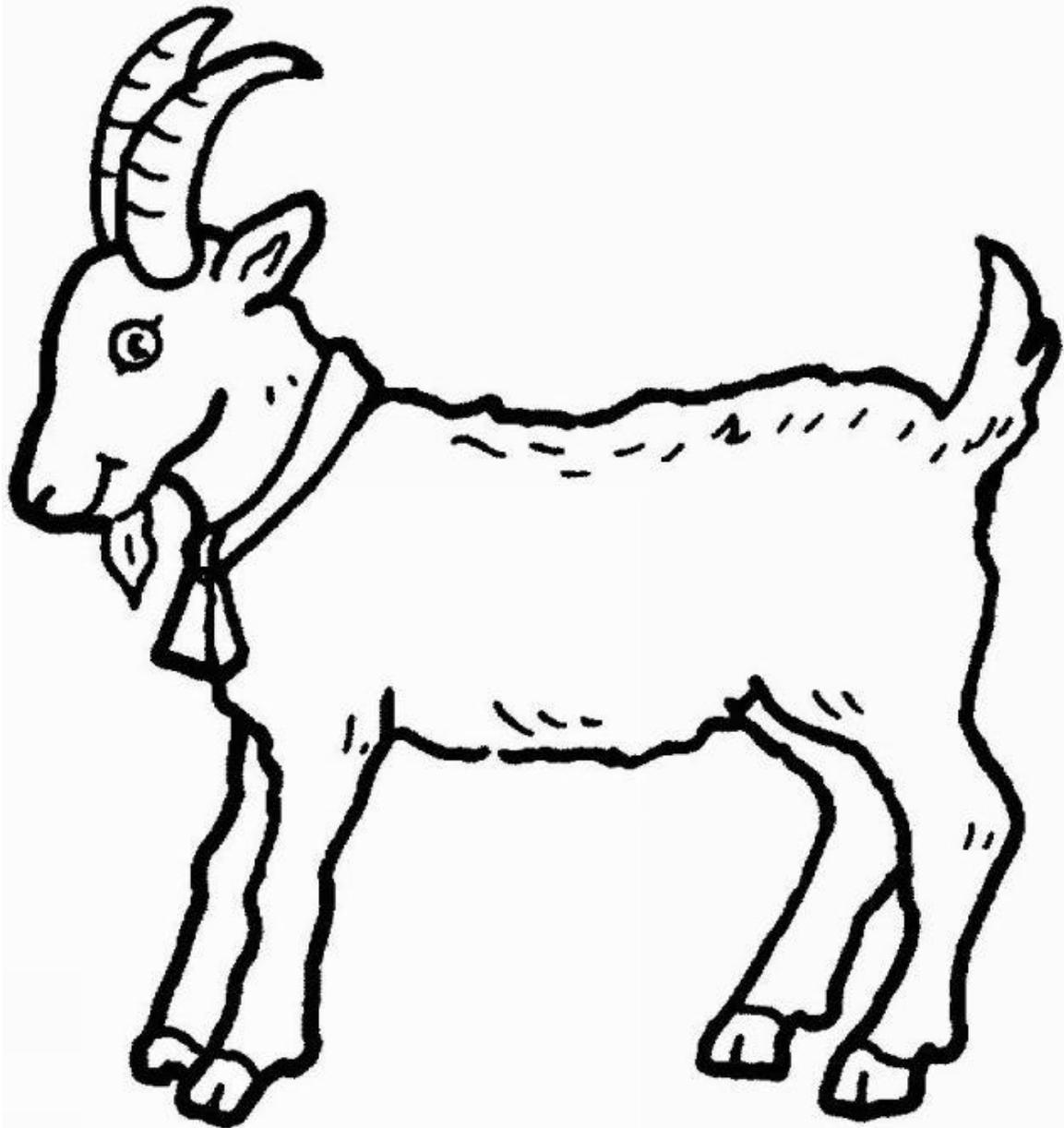


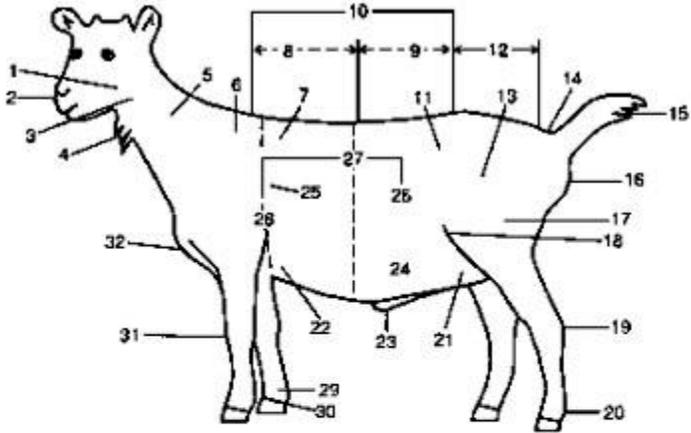
# 2012 AGBA Youth Conference



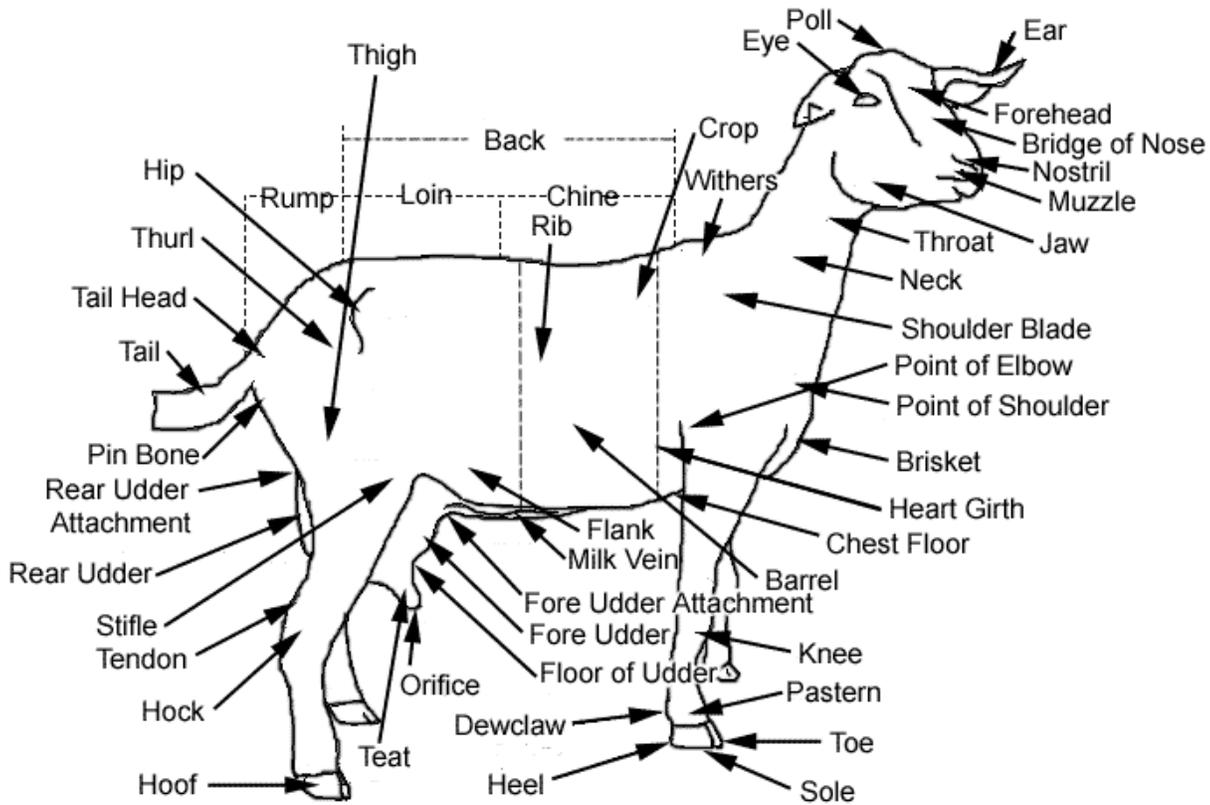
Saturday, Oct. 13, 2012

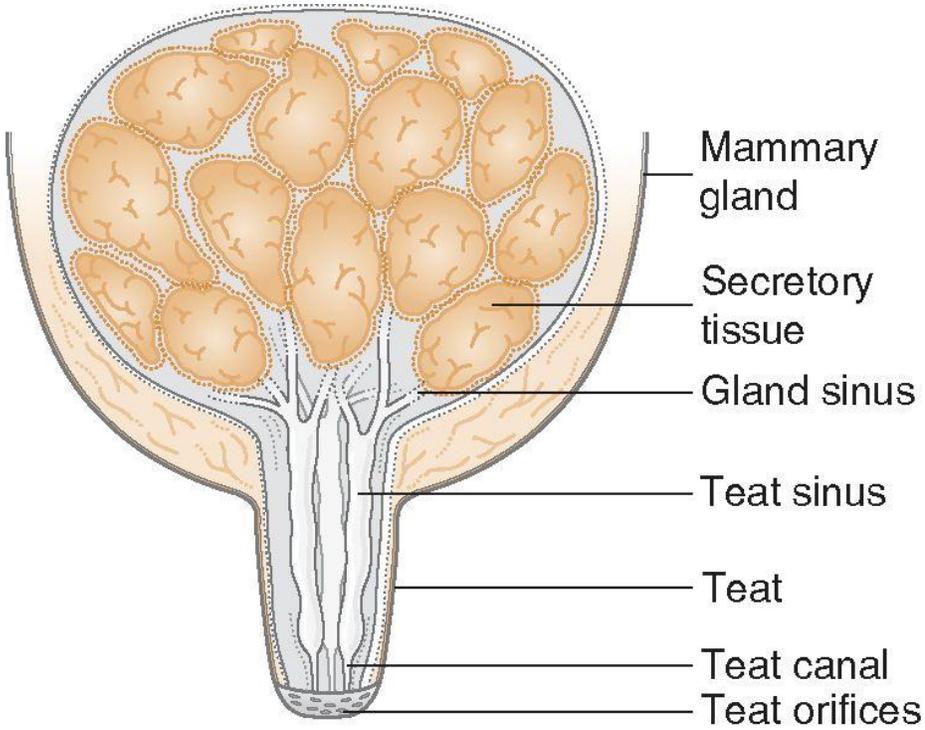
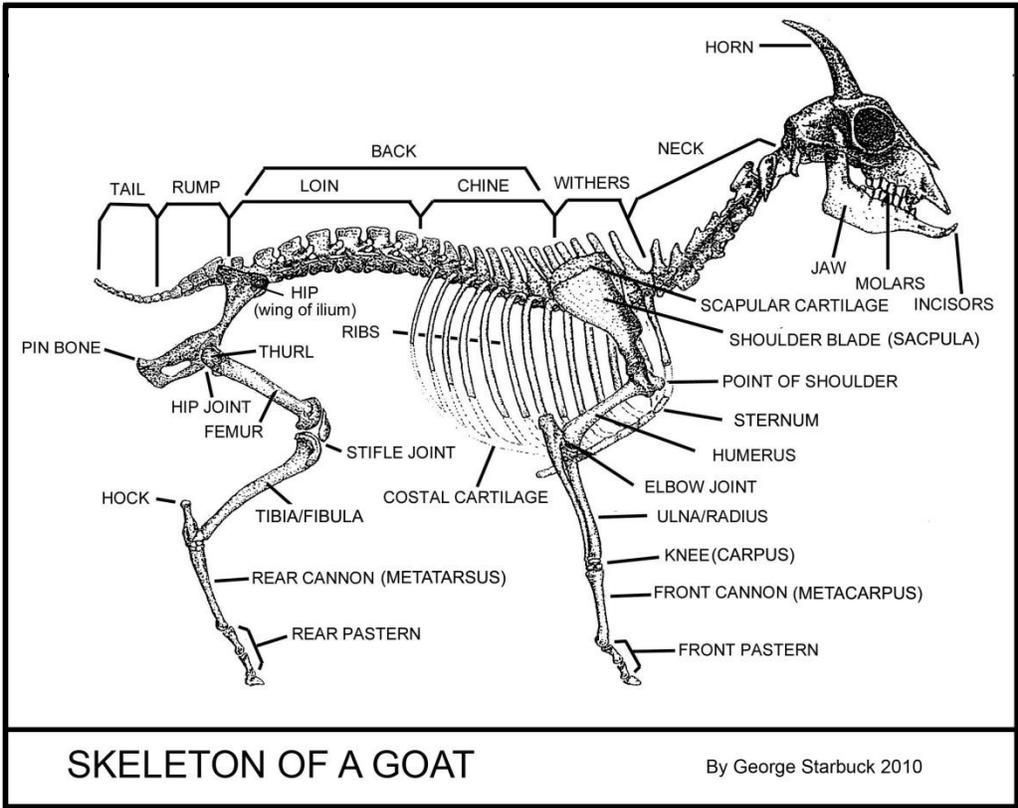
8:00- 9:00	Convention & Sale registration
9:00 - 9:10	Welcome & Introductions
9:10 - 10:00	Raising healthy kids & disease management: What to cull, what to control & what to manage - Dr. Dawn Magrath
10:00 - 10:10	Meet in show ring – find a spot to sit- make name tag, go over agenda
10:10 - 10:30	Goat Anatomy
10:30 – 11:00	Digestive System
11:00 - 11:15	Break
11:15 - 11:45	Showmanship and Grooming
11:45 - 12:00	Gestation Calculator
12:00 - 1:10	Lunch - soup/sandwiches
1:10 - 2:00	Be the Vet
2:00 - 2:40	Record Keeping
2:40 - 2:55	Break / viewing of sale animals
2:55 - 4:30	AGBA -- changing and growing, where we are going from here
4:35 - 5:00	Basic care - Hoof trimming demo, injection sites
5:00 - 6:00	Craft/Games
6:00 - 7:00	Visiting Time
7:00 - 8:00	Supper
8:00 – Bedtime	Social/Silent Auction

# Anatomy of a Goat



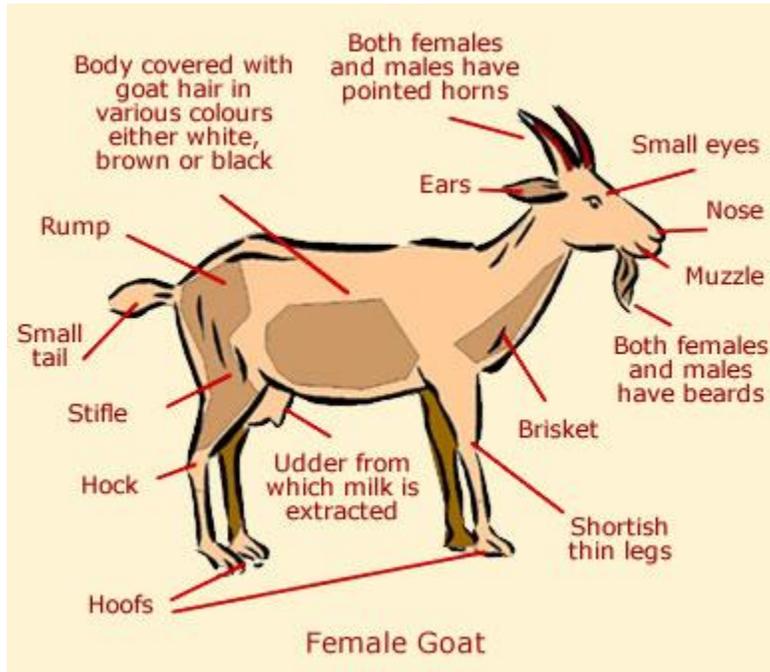
- |            |               |                |                 |
|------------|---------------|----------------|-----------------|
| 1. Jaw     | 9. Loin       | 17. Thigh      | 25. Fore Rib    |
| 2. Muzzle  | 10. Back      | 18. Stifle     | 26. Rear Rib    |
| 3. Throat  | 11. Hipbone   | 19. Hock       | 27. Barrel      |
| 4. Wattle  | 12. Rump      | 20. Dew Claw   | 28. Heart Girth |
| 5. Neck    | 13. Thurl     | 21. Rear Flank | 29. Pastern     |
| 6. Withers | 14. Tail Head | 22. Fore Flank | 30. Hoof        |
| 7. Crop    | 15. Tail      | 23. Sheath     | 31. Knee        |
| 8. Chine   | 16. Pin Bone  | 24. Belly      | 32. Chest       |





## Goat Anatomy

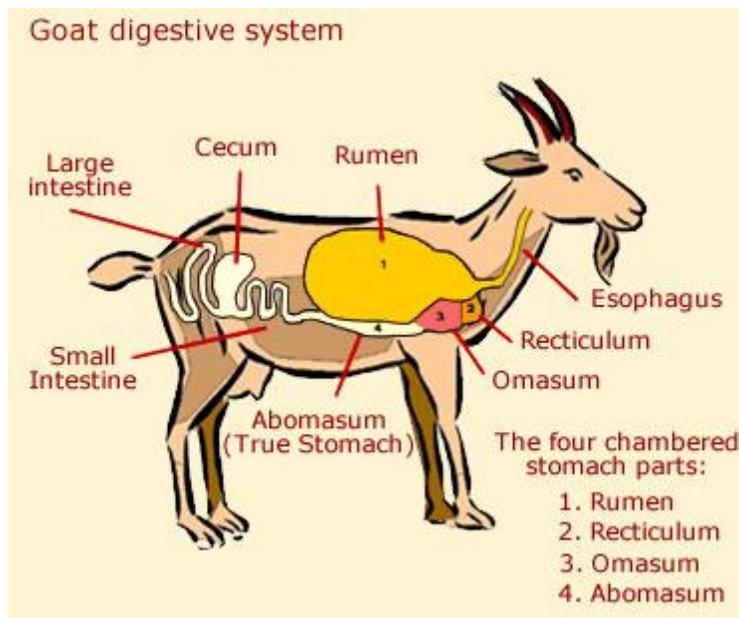
Below is an anatomy diagram of a typical **female goat**.



Goats are sure-footed animals who have a rough pad on the bottom of their two-toed hooves. Goats have a long, thick, furry coat that protects them from the cold. Goats range from about 17 to 42 inches (43 to 107 centimetres) tall at the shoulder. Both male and female wild goats have beards and pointed black horns.

Female goats have udders from which goats milk is extracted.

Below is a diagram of the internal digestive system of a goat. It shows the four stomach chambers and the intestines.



Mature goats are ruminant animals. Their digestive tracts, which are similar to those of cattle, sheep and deer, consist of the mouth, oesophagus, four stomach compartments, small intestine and large intestine.

Like other ruminant animals, goats have no upper incisor or canine teeth. Goats depend on the dental pad in front of the hard palate, lower incisor teeth, lips and tongue to take food into their mouths.

### **The Four Chambered Stomach Explained!**

**Rumen:** This is the largest of the four stomach compartments of ruminant animals. The capacity of the rumen of goats ranges from 3 to 6 gallons depending on the type of feed. This compartment, also known as the 'paunch', contains many microorganisms (bacteria and protozoa) that supply enzymes to breakdown fibre and other food that the goat eats.

The conversion of the cellulose of feeds to volatile fatty acids (acetic, propionic, and butyric acids) is the result of microbiological activities in the rumen. These volatile fatty acids are absorbed through the rumen wall and provide up to 80 percent of the total energy requirements of the animal. Microbial digestion in the rumen is the basic reason why ruminant animals effectively utilize fibrous feeds and are maintained primarily on roughages.

Rumen microorganisms also convert components of the feed to useful products such as the essential amino acids, the B complex vitamins, and vitamin K. Finally, the microorganisms themselves are digested further in the digestive tract.

**Reticulum:** This compartment, also known as the 'hardware stomach' or 'honeycomb', is located just below the entrance of the oesophagus into the stomach. The reticulum is part of the rumen separated only by an overflow connection, the 'rumino-reticular fold'. The capacity of the reticulum of goats ranges from 0.25 to 0.50 gallons.

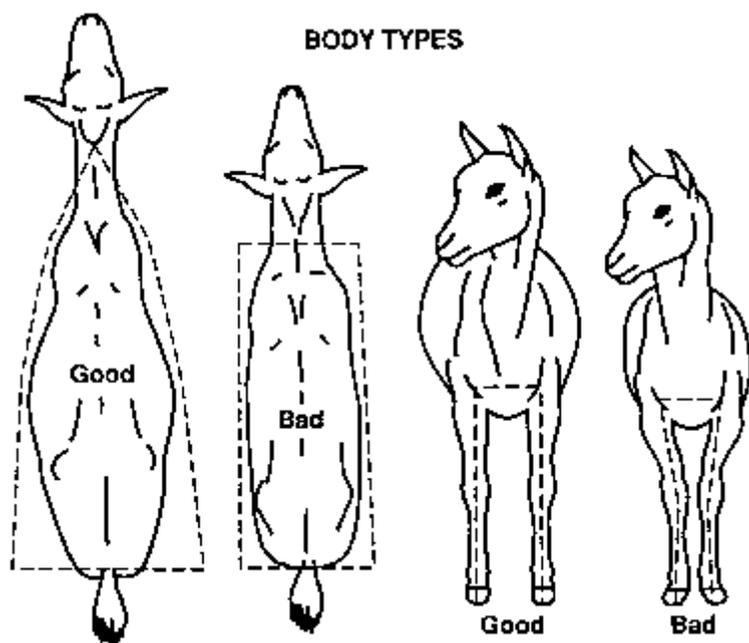
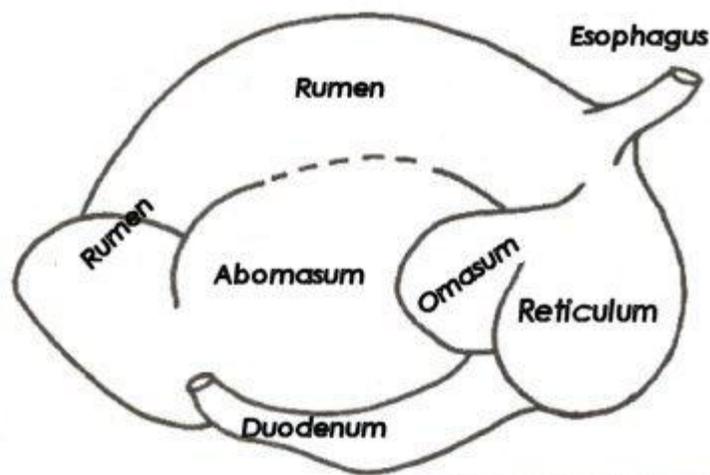
**Omasum:** This compartment, also known as the 'manyplies', consists of many folds or layers of tissue that grind up feed ingesta and remove some of the water from the feed. The capacity of the omasum in goats is approximately 0.25 gallons.

**Abomasum:** This compartment is more often considered the 'true stomach' of ruminant animals. It functions similarly to human stomachs. It contains hydrochloric acid and digestive enzymes that breakdown food particles before they enter the small intestine. The capacity of the abomasum of goats is approximately one gallon.

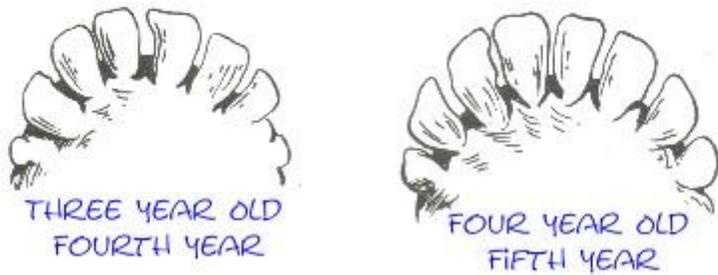
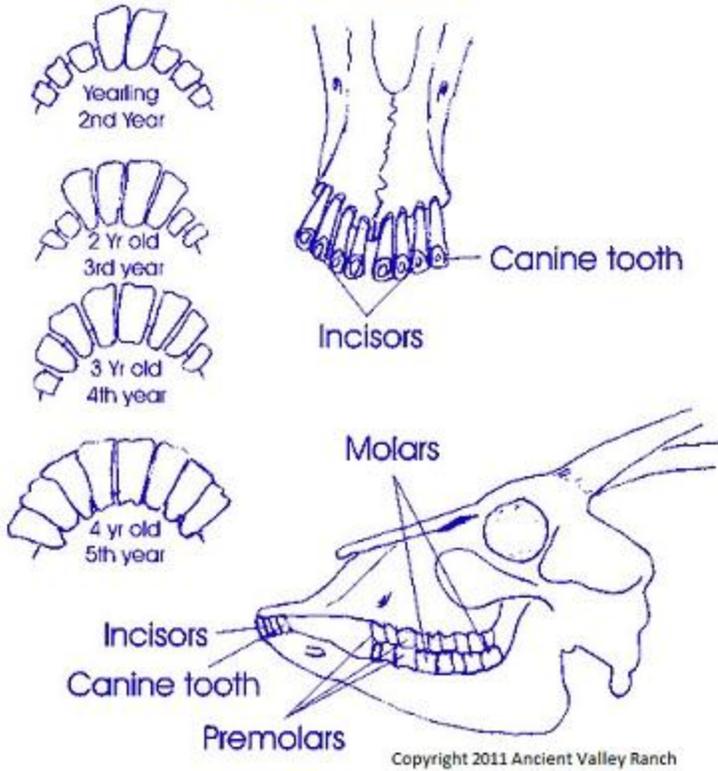
As partially digested feed enters the small intestine, enzymes produced and secreted by the pancreas and small intestinal mucosa further breakdown feed nutrients into simple compounds that are absorbed into the bloodstream. Undigested feed and unabsorbed nutrients leaving the small intestine pass into the large intestine. The functions of the large intestine include absorption of water and further digestion of feed materials by the microorganisms present in this area. The 100-foot-long intestinal canal of goats has a capacity to hold 3 gallons.

When a goat kid is born, the rumen is small and the abomasum is the largest of the four stomach compartments. The rumen of a goat kid represents about 30 percent of the total stomach area, while the abomasum represents about 70 percent. Hence, digestion in the goat kid is like that of a monogastric animal. In the suckling goat kid, closure of the oesophageal groove ensures that milk is channeled directly to the abomasum, instead of entering the rumen, reticulum, and omasum. When the suckling goat kid starts to eat vegetation (first or second week of life), the rumen, reticulum and omasum gradually develop in size and function.

Goats are very particular about what they eat, they will not consume food of poor quality or food that is dirty or has been trampled on. Goats require the best quality hay, green stuffs and concentrates (oats, barley, soya, linseed, etc. generally sold as a goat mix). However goats will eat a wide range of food, preferring more fibrous food to lush grass. Goats will eat young thistles and brambles, as well as twigs, they also like bark from trees. Goats are inquisitive and will nibble and investigate most items (including the proverbial washing off the line!), however, they are selective about what they actually eat.

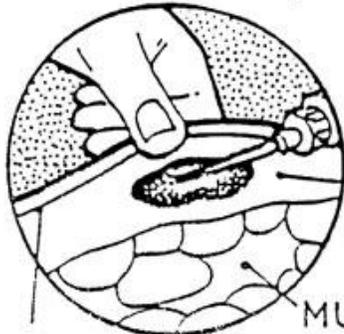


# GOAT TEETH



# INJECTION METHODS....

## SUB-Q SUBCUTANEOUS INJECTION

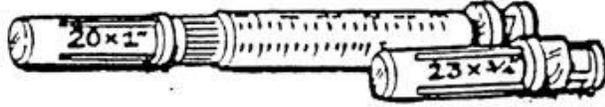


SKIN

SUB-Q TISSUE

MUSCLE

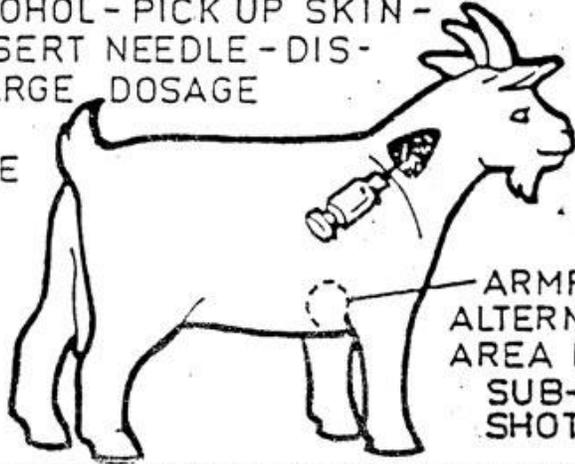
MADE IN LOOSE SKIN OVER SHOULDERS OR NECK



GOOD FOR TETANUS

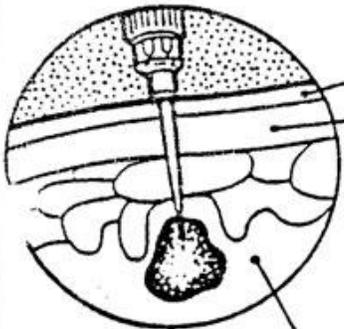
CLEAN SMALL AREA WITH ALCOHOL - PICK UP SKIN - INSERT NEEDLE - DISCHARGE DOSAGE

MASSAGE AREA AFTER SHOT



ARMPIT ALTERNATE AREA FOR SUB-Q SHOTS

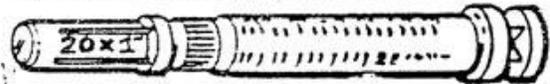
## IM INTERMUSCULAR INJECTION



SKIN  
SUB-Q TISSUE

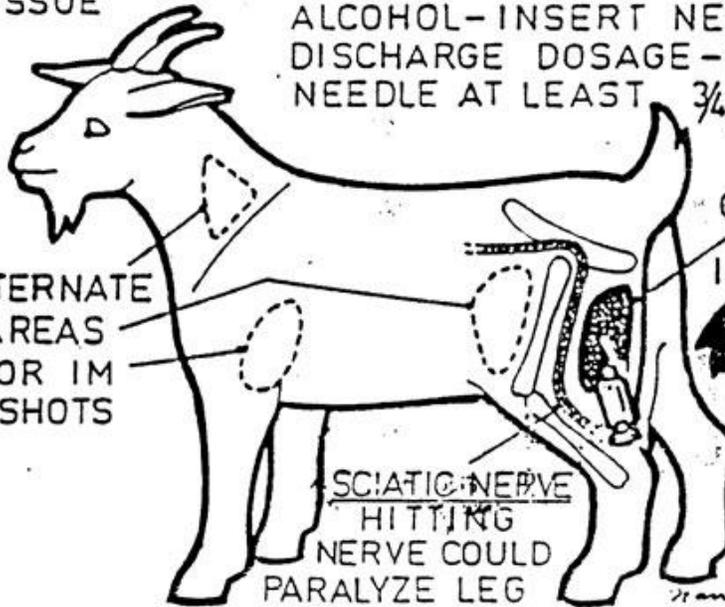
MUSCLE

MADE DEEPLY INTO LARGE THIGH MUSCLE



CLEANSE AN AREA WITH ALCOHOL - INSERT NEEDLE - DISCHARGE DOSAGE - USE NEEDLE AT LEAST 3/4"

ALTERNATE AREAS FOR IM SHOTS



SCIATIC NERVE HITTING NERVE COULD PARALYZE LEG

GIVE IM SHOT IN THIS AREA. AIM SYRINGE FROM SIDE. NOT REAR

Here are some basic grooming tasks:

- **Brushing:** Brushing removes dandruff and loose hair that some goats get and increases blood flow — improving the health of the skin and coat. It also gives you an opportunity to check for any signs of illness or disease, such as a lump, swelling, or other abnormality. At a minimum, brush goats in the late spring or early summer, when they're shedding or throwing off the undercoat that kept them warm in the winter. Use a firm-bristled grooming brush like you can get in any feed store or livestock supply catalog.

Brush in the direction of the coat starting at the neck, then down the back and down the sides. Make sure to brush the neck, chest, legs, and abdomen.

- **Bathing:** You don't have to bathe goats, but doing so helps remove the lice, makes clipping easier, and keeps your clipper blades sharp for a longer time. Goats prefer to be washed with warm water but will survive the inevitable cold water that is all most of us have available. Use a goat or animal shampoo.

You can use a collar to secure a baby goat or a goat that you can easily control. Secure other goats on a milk stand or by putting on a collar and attaching it to a fence. After the goat is secure, just wet it, lather up the shampoo, and rinse.

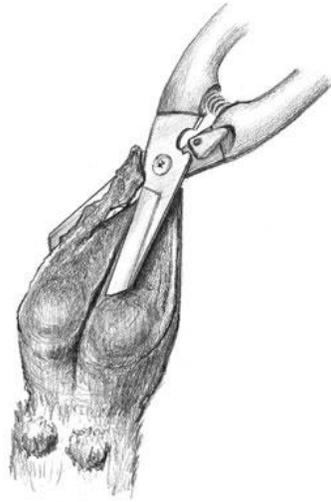
If you plan to clip the goat right away, blow-dry its hair. Otherwise, let the goat dry naturally.

- **Clipping:** An annual clipping is a good idea for all goats. Shorter hair helps goats stay cooler and allows sunlight to reach their skin, which drives away lice and other critters. Choose a day after the cold weather is expected to be over.

Two areas that most people clip more frequently are the tail area prior to [kidding](#) and the udder during milking season:

- **Tail to kid:** Before, during, and after kidding, blood and fluids stick to the goat's tail and the coat around the tail. Clip up the sides of the tail, across the end of the tail to make a short little brush, and around the vulva area and inside top of the back legs.
- **Udder:** Removing hair from the belly and udder makes the udder easier to clean before milking and prevents hairs from falling into the milk.
- **Trimming hooves:** Keeping a goat's hooves trimmed is one of the easiest, least expensive, and most important parts of goat care. Regular trimming takes very little time and cuts down on health care expenses in the long term.

# A Guide for Trimming Hooves

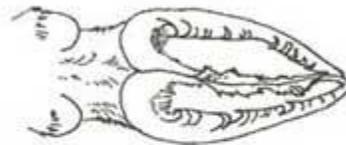


Hoof Trimming is an acquired skill that takes quite a bit of practice to perfect. The tools you will need include a good pair of hoof shears. Do not try to save money on this particular tool. My favorite is called a "sheep foot rot shear". Hoof trimming shears are available in any animal supply house and come in many shapes and designs. You will also need a hand held carpenter's plane, the kind that looks a little like a cheese grater.

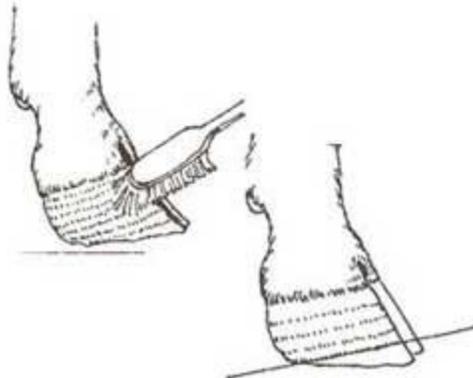
Hooves that are overgrown will turn under around the sides and may even grow out in front like elf shoes.



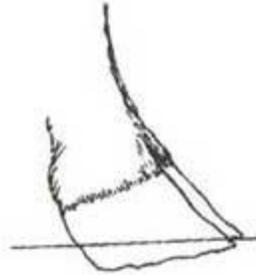
Start by cleaning the manure and crud out from the toes with a hoof pick or the point of your shears. Then trim off the overgrown sides down to the white sole.



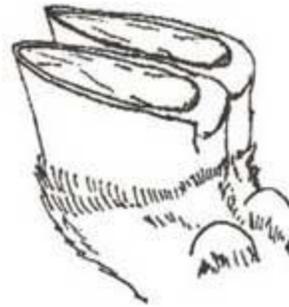
Now take a tooth brush and some water and scrub the sides of the hoof until you can see the little growth lines that are circling the hoof parallel with the hair at the top of the hoof. This is the correct angle for the trimmed hoof to end up.



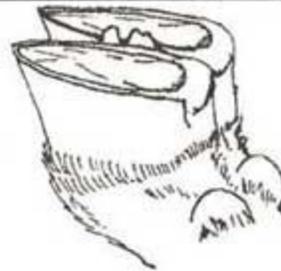
The toes of the hoof grow faster than the heel. Because of this, many people tend to trim at the wrong angle - like this -----> This will cause the foot to roll backwards, forcing the pasterns to break down.



Start trimming slices off the hard side nail and the soft, white center to level out the hoof. Trim down until you can see the white change to pink. Trim the heel only down until it is level with the growth ring that the toe is on. The toe and heel should be at the same level.



There may be some little flaps coming out of the middle, between the hooves, these will need to be snipped off.



Then, using your carpenter's plane, and holding both toes together, so they will come out level, plane off the entire bottom of the hoof (including the heel) until it is level. If the hoof oozes little pin-pricks of blood, don't worry,



but definitely stop trimming for today. (It is not a bad idea to brush a little iodine on it before you set it down in the manure.) ?

Sometimes, the heel is the part that seems to grow too fast, causing the goat to walk on the back of the hoof above the heel. In this case, be sure that you trim the hooves more often, and that you are not leaving the heel so long that the goat is walking on 'high heels'. If the hoof was drastically overgrown, and you didn't get it into the right shape, it is better to come back to it later than to make the goat lame, or risk serious bleeding and infection, by cutting too much at one time. Try again in one to three weeks. If it still isn't right, come back in another two or three weeks. Sometimes it takes a while to whip a goat's hooves into perfect shape.

Goat's hooves need to be trimmed regularly (and don't forget the bucks!). That will mean different

things depending on your ranch and conditions. If your goats have plenty of rocks to walk on, or are in a large herd that travels over many acres a day, you might be able to escape this chore for four to six months. Some people even build low platforms of rock and cement for the goats to play on to help them keep their hooves in shape. In most cases, when the goats are walking on grass or in pens, hooves should be trimmed every four to twelve weeks.

## HOOF TRIMMING

A badly overgrown hoof



1. Dig out dirt from toes



2. Trim away excess nail, try to trim parallel to lines of growth



3. Pare heels to the same level as soles of



toes.

4. Take away all the excess nail tissue, all around each toe.

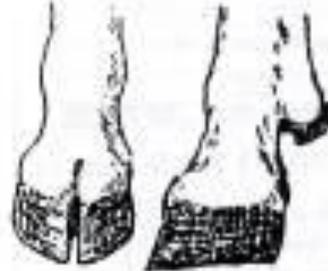


5. Finish the job by using a wood rasp or paring thin slices from sole of



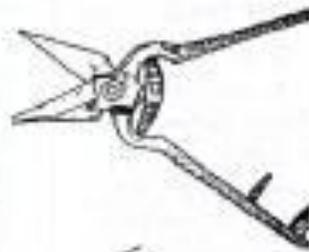
foot, make flat.

6. A good trim



Trim feet every six weeks or more often in wet weather.

## TOOLS



Be careful you do not trim too much off feet, when they look pink the blood is just below the surface, it is time to STOP.

## Showmanship Guide

- Showman must wear a plain white shirt, black pants, and proper shoes. Hats are not allowed. Wearing any clothing that could draw the judge's attention to that showman more than any other could result in disqualification. Hair should be pulled back and kept off their face.
- Goats should be lead with a collar and lead. If a showman must use a halter it will be looked at as less points but not a disqualification.
- Showman must wait for the Ring Steward to invite them into the ring. All participants must enter the ring in numerical order.
- Showman can talk to the Ring Steward at any time and can ask for help with their animal. The Showman may not talk to the judge unless answering a question posed to them by the judge. Participants should not talk to each other while in the show ring.
- When entering the show ring and while in the show ring, the animal should always be placed between the showman and the judge.
- The Judge will instruct the showman which direction to move, when to line up and where to stand in line. The Ring Steward may help the showman with directions but not with setting up animals.
- While moving around the ring, if an animal stops in line, showman behind should also stop. If the animal will not start moving again for more than 15 seconds then the showman behind may move around the animal and continue in line. Showman may not touch another animal at any time.
- Whenever the judge asks the showman to stop, the animal should be set up in show position. (Head up, front legs parallel, back legs stretched out slightly).
- When asked to change places in line, the showman will move in front of the line to move to the new spot. Then the showman will then enter the line again at the new spot, move through the line, turn and then set up in line again.
- When the Judge has made their decisions on placing, the showman will be asked to line up in order from first to last from left to right while looking from behind.
- When handed the ribbon, showman should say thank you no matter what the placing. Before leaving the ring, congratulating your fellow showmen shows good sportsmanship.
- Realizing that someone must be last and that the show is determined by one judge's opinion on that one day, don't show disappointment for your placing. It doesn't mean that your animal is not good. It shows maturity, grace, and humility to be able to be proud for any placing that you receive.

## Grooming Guide

- Animals should be washed the day before the show if weather will allow. Feet should be trimmed
- Hair around feet and horns should be trimmed
- Horns and feet can be polished with baby oil or polish.
- All tag should be removed from the tail.
- Show collars should be in good condition and be clean.



## Glossary of Terms

**Abomasum** The fourth or true digestive part of a ruminant's stomach that contains gastric juices and enzymes that begin the breakdown of complex materials.

**Abortifacients** A drug or other agent used to cause abortion. Other agents could be considered as toxins or poisons from plants, trees, etc.

**Abortion** Expulsion of the fetus (or fetuses) by a pregnant female before the normal end of a pregnancy.

**Acidosis** A condition when the rumen becomes too acid. Usually due to over-consumption of grain.

**ADF** Acid Detergent Fiber; an indicator of relative digestibility of forages.

**Aflatoxin** Toxin produced by the fungi *Aspergillus flavus* and *Aspergillus parasiticus*.

**Afterbirth** The fetal membranes that attach the fetus to the membranes of the pregnant female and which are normally expelled from the female within 3 to 6 h. after parturition.

**AI (Artificial Insemination)** The technique that involves breeding of females without the males being physically present.

**Ante-mortem** Before death.

**Anthelmintic** A compound that kills or expels internal parasites - such as worms.

**Antibiotic** Chemical compounds from living cells, that inhibit growth or kill microorganisms.

**Artificial Rearing** Raising a kid on milk or milk replacer.

**Atrophy** Wasting away or decreasing in size of cells, organs or entire body; due to disuse, disease or severe malnutrition.

**Banding** This involves the use of castration rings (bands) to remove the testicles.

**Body Condition Score** A value from 1-5 (thin to fat) used to estimate condition of an animal.

**Bolus** A large oval shaped pill containing antibiotics.

**Bots** Tiny larvae that crawl into nasal passages.

**Breeding Season** The period of time when the doe is showing estrus.

**Brood Doe** A doe kept for the purpose of continuing a desirable bloodline and genetics in her offspring.

**Browse** Broad-leafed woody plant, shrub or brush.

**Browsing** Goats moving from place to place as they eat various foliage and browse along the path.

**Brucellosis** Infection with bacteria of the Brucella group, frequently causing abortions in animals and remittent fever in man. Also called Undulant fever, Malta fever, or Mediterranean fever.

**Buck** Male goat.

**Buckling** Baby male goat.

**Burdizzo** Tool used to castrate bucks by severing the cord without breaking the skin of the scrotum.

**Butting** Method of fighting among goats (especially bucks) by the striking of the head and horns.

**CAE** Caprine Arthritic Encephalitis, a goat virus a lot like AIDS in humans.

**Calcium to Phosphorus Ratio** Relative amounts of calcium and phosphorus in the total ration. Usually recommended to be at least 2:1.

**Chevon** Goat meat.

**CC** Cubic Centimeter, same as ML; 3CC and 3ML are the same thing in shots.

**Chlamydia** Small organisms associated with pneumonia, abortion, diarrhea, conjunctivitis, arthritis and encephalitis.

**Chlamydiosis** Type of infectious abortion.

**CL** Caseous Lymphadenitis, an abscess disease of goats that is highly contagious.

**Cloning** The production of genes or individuals which are genetically the same as the donor.

**Clostridial Organisms** Anaerobic bacteria that produce spores under certain conditions.

**Cocci** An oocyst that destroys the lining of the small intestine causing diarrhea and death; (also known as coccidiosis)

**Coccidiosis** An oocyst that destroys the lining of the small intestine causing diarrhea and death; (also known as cocci)

**Colostrum** The first milk full of antibodies for the kids, essential to their life.

**Corpus luteum** A ductless gland developed within the ovary by the reorganization of a Graafian follicle following ovulation. Also known as an extract of this gland of the hog or cow, the chief principle of which is progesterone. plural = corpora lutea.

**Corticosteroids** Any of a class of steroids, as aldosterone, hydrocortisone, or cortisone, occurring in nature as a product of the adrenal cortex, or synthesized. Also called corticoid.

**Creep** An enclosure into which young (small) animals may enter but larger animals cannot. Any feeders in this area or in farrowing crates or parturition pen that are only accessible to the young are called creep feeders.

**Critical Temperature** Maximum or minimum environmental temperature tolerated by the animal before additional dietary energy is required to maintain normal body temperature.

**Crossbred** The offspring resulting from mating a buck and doe of different breeds.

**Crossbreeding** Mating plan involving two or more breeds.

**Cryptosporidiosis** An organism that proliferates in the small intestine.

**Culling** The process of removing animals that are below average in production, unsound or undesirable.

**Culls** Goats which are below a required standard.

**Custom Feeding** The practice of having livestock fed and managed for the livestock owner in another facility for a fee.

**Cut** To castrate.

**Cysticercosis** The condition where a larval form of a tapeworm has encysted or embedded itself in the tissue of its host.

**Dehydrate** The loss of body fluids by fever, virus or heat.

**Disbudding** The practice of removing the horns on a goat.

**Doe** Female goat.

**Doeling** Baby female goat.

**Drenching** The oral administration of medication.

**Drylot** A penned area for holding the herd for an extended period with or without housing.

**Dry Matter** (DM) The portion of feed that is not water.

**Elastrator** Instrument used to apply heavy rubber bands (elastrator rings/bands) to tail and scrotum for docking and castration. Some breeders also used this method for disbudding.

**Embryo Transfer** Recently fertilized eggs from donor doe are transferred to the uterus of a recipient doe, usually by surgically exposing the uterus of the recipient.

**Emaciation** To waste away physically.

**Encephalitis** Inflammation of the brain usually with severe signs such as fever, incoordination, and convulsions.

**Enteritis** An inflammation of the intestinal tract.

**Enterotoxemia** Actually misnamed "overeaters", it is a toxin in all healthy goats, that multiplies with a stressor to cause stomach cramps and death.

**Entropion** A heritable trait in which the lower eyelid is inverted, causing the eyelashes of the lower lid to brush against the eye.

**Esophageal Feeder** Tube placed down the esophagus of a goat to administer milk or other liquid.

**Estrogen** Hormone that causes regression of the corpus luteum and stimulates estrus.

**Estrous Cycle** The time period from beginning of one heat to the beginning of the next heat. Usually about 21 days.

**Estrus** The period of time when the female is sexually receptive to the male, Usually 24-36 hours, also known as "heat".

**External Parasite** Parasites that may be found on the hair, skin and in the nasal and ear passages.

**Fecundity** Efficiency of an individual in production of young. Animals that bring forth young frequently, regularly, and, in case of those that bear more than one offspring at a birth, in large numbers, are said to be fecund.

**Fertility** The ability to produce offspring.

**Fetus** The unborn young in the later stages of development.

**Flight Zone** Maximum zone of comfort or security of animals.

**Flushing** Management practice of improving a does's plan of nutrition just prior to mating to improve ovulation rate.

**Foot Bath** Chemical and water mixture, that goats stand in, used for the prevention and/or treatment of foot rot and foot scald.

**Forage** Fiber-containing feedstuffs such as silage, hay and pasture.

**Forcing Pen** Pen used to confine animals prior to moving them into treatment chutes.

**Freshen** To come into milk.

**Galatopoiesis** Stimulating milk production.

**Gambrel Restrainer** Restraining device that is a gambrel-shaped piece of plastic that is placed over the top of the animal's neck, with slots on either side to hold both front legs of the animal.

**Gastroenteritis** An inflammation of the stomach and intestines.

**Gestation Period** of pregnancy beginning at conception and ending with birth (142-152 days).

**Grafting** Fostering a kid onto a doe that is not its natural mother.

**Group Fed** Feeding system where all animals in a group are fed at one time.

**Guardian Dog** A dog that stays with the goats without harming them and aggressively repels predators.

**Heat** See estrus.

**Helminths** Parasitic worms.

**Herd** Goats are "herd" animals meaning that they will thrive better with one or more of their same kind in numbers.

**Hypocalcemia** Low levels of calcium in the blood.

**Hypomagnesemia** Low levels of magnesium in the blood.

**Hypothermia** Inability to keep warm often caused by cold or wet weather.

**IM Intramuscular** in the muscle shot.

**Immunity** Developing resistance to a specific pathogenic microorganism.

**Intermediate Host** An animal or other living body in which a parasite completes part of its life cycle and usually causes no damage.

**Internal Parasites** Parasites located in the stomach, lungs and intestines of goats.

**International Unit** (IU) Unit of measurement of vitamins and drugs.

**Iodine** Disinfectant used on navels of newborn goats that helps dry up the navel, thus closing the passageway into the body of the goat. Also applied to hooves of newborns by some breeders. Veterinary iodine contains 7% iodine while common iodine for humans contains 2% iodine.

**Jacobson's Organ** Also known as the vomeronasal organ, is mainly used to detect pheromones, chemical messengers that carry information between individuals of the same species, hence is sometimes referred to as the "sixth sense."

**Johnes** A wasting disease of ruminants, contagious in their fecal matter (poop).

**Keds** Bloodsucking ticks that pierce the skin causing serious damage to the pelts.

**Ketones** Compounds found in the blood of pregnant goats suffering from pregnancy toxemia.

**Known Carrier** An animal that has produced offspring with a genetic defect.

**Kid(s)** Baby goats, either sex.

**Kidding** Having babies.

**Lactation** The period of time when the doe is producing milk. Normally from birth of kid to weaning.

**Legumes** Family of plants bearing seeds in a pod. Alfalfa hay is an example of a legume.

**Leucocyte** (leukocyte) Usually referring to white blood cells.

**Liver Flukes** Small leaf-shaped organisms that roll up like a scroll in the bile ducts or liver tissue.

**Loading Chute** A chute used for loading animals into a truck or trailer.

**Lochia** The dark blood discharge a doe has for several weeks after kidding.

**Lungworms** Roundworms found in the respiratory tract and lung tissue.

**Mange Mites** Mites which infest and damage the skin and hair.

**Manure** Poop, nanny berries, fecal matter, excrement.

**Mastitis** Inflammation of the mammary gland caused by bacterial infection, resulting in reduced milk production.

**Metritis** An inflammation of the uterus.

**Milk Fever** Substantial reduction in plasma calcium which interferes with nerve transmission, causing partial or almost total paralysis occurring at or just giving birth and initiation of lactation.

**Milk Replacer** Artificial milk substitute fed to young goats.

**Mineral** Inorganic substance found naturally in all body cells, tissues and fluids.

**Mitigation** To make less harsh or severe; using goats to control brush or weeds is commonly referred to as mitigation.

**ML Milliliter**, same as CC; 3CC and 3ML are the same thing in shots.

**Monogastric** An animal with a single compartment stomach. Goats are not monogastric.

**Mycotoxin** Toxic compounds, produced by fungi, that contaminate plants.

**Natural Immunity** Inherited resistance to disease that varies between breeds, strains within breeds and individuals.

**Necropsy** Examination of a dead animal to determine cause of death.

**Nematode** Also called Roundworms, nematodes are among the most abundant animals, occurring as parasites in animals and plants or as free-living forms in soil, freshwater, marine environments, and even such unusual places as vinegar and beer malts.

**Nitrate Poisoning** Condition in which toxic levels of nitrates accumulate in plants.

**Nose Bots** Tiny larvae that crawl into nasal passages.

**Omasum** The third part of the ruminant stomach located between the reticulum and the abomasum.

**Oocyst** A stage in the life of coccidia (a protozoal parasite) that is shed in manure. Goats become infected by ingesting oocysts from contaminated pastures.

**Orifice** The hole in the end of a teat.

**Ovary** Primary female reproductive organ.

**Over the Counter Drugs** (OTC) Drugs that can be purchased directly by the producer.

**Palatability** This refers to how avidly a goat will choose from among several different choices of feed.

**Parasite** An organism that lives off of a host.

**Parous** Females that have produced young.

**Parturient Paresis** Substantial reduction in plasma calcium which interferes with nerve transmission, causing partial or almost total paralysis occurring at or just giving birth and initiation of lactation.

**Parturition** The act of bringing forth young; childbirth.

**Pinkeye** A highly contagious disease that affects the eyes of goats (also contagious to humans).

**Placenta** The big membrane that the doe expells after kidding.

**Post Mortem** After death.

**Postpartum** After birth.

**Prepartum** Before birth.

**Pregnancy Toxemia** A metabolic disease of pregnant does generally caused by diet deficient in energy during late pregnancy.

**Probiotic** Living organisms used to manipulate fermentation in the rumen.

**Progeny** Offspring.

**Prolificacy (fecundity)** The number of offspring actually produced by a female.

**Protein Nitrogen**-based essential nutrient, composed of chains of amino acids, that is present in all living things.

**Protein Supplement** Feedstuff that contain a high level of protein. Fed to animals in addition to their base diet.

**Ration** A mixture of feedstuffs fed to animals over a 24 hour period.

**Rehydrate** The addition of body fluids which have been lost from fever, illness, heat, etc.

**Rennet** Extracted from the fourth stomach, the enzyme component rennin is used to coagulate milk.

**Reticulo-Rumen** Section of the ruminant gastrointestinal tract consisting of the reticulum and the rumen that is the primary site for microbial fermentation of feedstuffs.

**Reticulum** The second compartment of the ruminant stomach, also known as the second stomach. The lining has a honeycombed appearance to increase the surface area for absorption.

**Rigor Mortis** The permanent contraction of skeletal muscle associated with death.

**Roughage** Coarse, bulky feed high in fiber such as hay, straw and silage.

**Rumen** The large first compartment of a ruminant's stomach containing microbial population that is capable of breaking down forages and roughages.

**Rumen-Reticulum** Pregastric fermentation chamber that host a large microbial population.

**Ruminant** A group of animals that chew their cud and characteristically have a four compartment stomach.

**Rumination** The process of regurgitating food to be rechewed.

**Scours** Diarrhea usually only associated with incorrect milk feeding.

**Shipping Fever** Respiratory disease usually accompanying transport.

**Silage** Green forage converted to a succulent feed of 30% - 40% dry matter for goats by storing without air (as in silo or air-tight bags).

**Sire** The father.

**Soremouth or Orf** A highly contagious (also to humans), viral infection that causes scabs around mouth, nostrils, eyes and may effect udders of lactating does.

**SubQ Subcutaneous**, under the skin shot (sometimes written as SQ or sq).

**Synchronization** A management practice used to cause the goats to cycle at the same time.

**Systemic Disease** A disease where more than one portion of the body is affected; often the whole body or one or more systems.

**Total Digestible Nutrients** (TDN) Standard system for expressing the energy value of feeds.

**Trace Minerals** (TM) Minerals that are required in very small amounts.

**Trip** a term that describes a small (or large) group of goats. By comparison, almost every species is given a specific group term; "flock" of geese, "pride" of lions, "pack" of dogs, "school" of fish...

**Urinary Calculi** Metabolic disease of male lambs characterized by the formation of stones within the urinary tract. It is caused primarily by an imbalance of dietary calcium and phosphorus.

**Uterus** Portion of the female reproductive tract where conceptuses develop prior to birth (womb).

**Vaccination** Injection, given to healthy animals, used to stimulate prolonged immunity to specific diseases.

**Vaginal Prolapse** Protrusion of the vagina in does in late pregnancy.

**Vitamins** Small organic compounds, necessary for proper metabolism, that are found in feed in minute amounts. Deficiencies result in distinct diseases or syndromes.

**Vomer nasal Organ** Also known as Jacobson's Organ, is mainly used to detect pheromones, chemical messengers that carry information between individuals of the same species, hence is sometimes referred to as the "sixth sense."

**Wether** Castrated male.

**White Muscle Disease** A disease caused by a deficiency of selenium, Vitamin E or both that causes degeneration of skeletal and cardiac muscles of goats.

**Withdrawal Period** (or time) The time when a drug must not be administered prior to marketing to insure that no drug residues remain in the meat or milk.

**Yearling** A one year old goat.

**Zoonosis** Diseases of animals that can be transmitted to humans.

**Zygote** The product of fertilization, ie. a cell formed from the union of an oocyte and a spermatozoan.