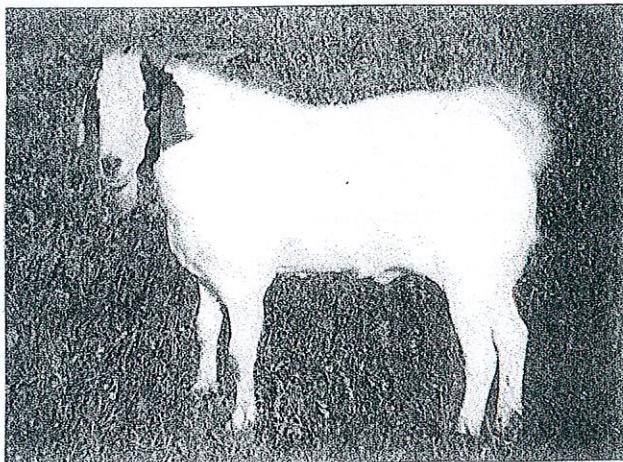


Fresno County 4-H

Meat Goat

Study Guide



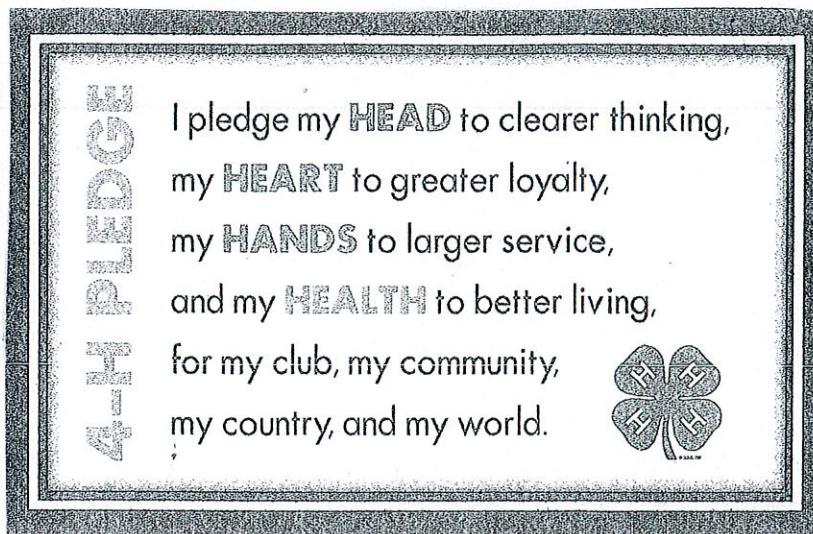
Fresno County 4-H Meat Goat Project Overview

The 4-H Meat Goat Project gives 4-H members an opportunity to participate in a relatively inexpensive and short-term animal project. This project goat may be shown at the local county shows which include Fresno Fair and at the end your goat may be sold at the Junior Livestock Auction. Members will receive funds from the sale of their goat.

The Fresno County 4-H Meat Goat Project starts with selection of your goat, usually a young wether goat born in early to late spring and concludes with the final show in the fall. Participating 4-H members will purchase the goat with the guidance of their Meat Goat Project Leader. Members should obtain the project study guide, which includes instructions for raising a healthy goat, necessary facilities, nutrition, goat health, terminology and other useful information about this project. At year end members will be required to complete a 4-H Record Book.

The objectives of the 4-H Meat Goat Project are to learn basic principles of animal science by owning and caring for a project goat. Youth have the opportunity to learn and demonstrate knowledge of feeding and management practices, identify types and grades of animals, lean about marketing methods, will identify quality in wholesale and retail cuts of animal products and understand their relationship to management practices. By participation in this project youth will develop integrity, sportsmanship, decision-making capability, and public speaking skills through participation in demonstrations, tours, judging and exhibits. Youth will learn the value of scientific research and its influence upon animals and the meat industry and will demonstrate budgeting and record keeping skills when they complete the 4-H Record Book.

Please contact your Fresno County 4-H Office or your local 4-H Club or Meat Goat Project Leaders for more information about this project.



Meat Goat Project Guide Basics

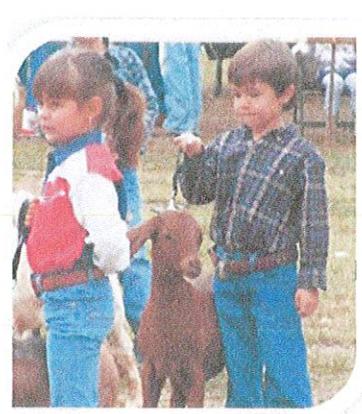
Wether Goats make good project animals for young people, since goats are small, easy to work with, relatively inexpensive, and may be kept in a small amount of space. Young goats are fun to work with and watch as they grow up. A **wether goat** is a **castrated male goat**. It is very common to castrate males that will not be used as a herd sire. Most wethers are raised for the purpose of meat production.

The purpose of this project is to teach young people how to responsibly care for a goat and keep records on the goat's progress. Records on income and expenses will also be kept to monitor profitability.

Goats typically grow fast while they are young. Under normal conditions, goats will gain around 2 pounds per week. Your wether may gain more during one week and less during another. You should weigh your goat on a regular basis to monitor weight gain. There is a chart in your data book to record your weights. Your goat may weigh over 100 pounds by the end of the project.

Not all goats in the project will gain to the same final weight. Remember that size does not make a good goat. There are good small goats and good large goats. The management program is the key.

Remember, the project is about having fun and learning about your goat. Relax, have fun and enjoy showing your wether goat.



Facilities and Equipment

One of the major advantages of a goat project is the expensive facilities are not needed. Goats will adapt well to most environments. However, there are a few essentials needed to properly care for your goat.

#1. A Barn or Shed is needed so goats can retreat from the sun and rain. The shed area should have at least 25 square feet of space for each goat. The shed should also be well drained and well ventilated so goats will remain cool during the summer months.

#2. A Pen with outside exposure is important. The outside pen needs to be at least 100 square feet per goat. Gates should have strong latches that a goat cannot open. Make sure the ground will not hold water, drainage is important. Pens need to be cleaned often. Make sure your pen is **goat proof** (a goat will eat things it shouldn't).

Goat proofing a pen is hard work. It's hard to think like a goat! Goats will also get their heads stuck and will get their legs caught. Keep an eye on your goat for a while once you get it home, just in case it out-thinks you

#3. Fencing is of course very important. Fence height should be at least 48 inches. Fences should also keep out predators. Good fences can keep out dogs. Dogs like to chase goats and may end up killing your goat. The most desirable pens are constructed from galvanized livestock panels that are 5 feet tall with 4 inch sq



#4 Feed Containers are essential. Self-feeders are often used in the feeding of goats. Self-feeders should be at least 6 inches off the ground. If goats are hand fed, use moveable troughs that hang on the fence at the appropriate height. Troughs should be hung at the same height as the top of the shoulder of the goat being fed. These movable troughs should be cleaned regularly. Likewise, hay and mineral feeders need to be raised off the ground. This will help reduce the spread of disease and parasites. It's also important to make sure that goats are not able to stand in their feed troughs because they will urinate or defecate on the feed.

#5. Water Containers are the most important of all. Fresh water is the most important ingredient in properly caring for your goats. Water should be checked daily. Water troughs should be small in size so they can be cleaned on a regular basis. Troughs should be located in the shade to keep the water cool and available. **Never let the water container go dry!**

#6. No hay bags or hay nets should be left with goats when they are alone. Your goat could get tangled and be hanged!

Useful equipment for Goat Care

- stiff brush to clean water troughs
- shovel, rake or pitch fork to clean pens
- scales or weigh tape to weigh goats
- syringes and needles for injections
- collars and leads for shows
- hoof trimmers
- small portable feed troughs or buckets
- soft brush for grooming
- water bucket

Feed Management

Obviously, how you manage your goat's feeding program will dictate a lot about your goat. You have a choice of feeding a commercially prepared ration, mixing your own, or feeding a ration that has been mixed by the local feed store. There are many complete commercial rations available. Goats are picky eaters; therefore, a pellet ration is recommended over a textured or loose ration. Select a balanced ration, learn how to feed it, and learn how your goat responds to it. It is recommended that you use a goat ration that contains a coccidiostat medication for coccidian parasite. Never feed your goats; chicken, dog, cow, horse, or pig feed.

At the time of purchase many young goats will not know how to eat pellet feed from a trough. These goats should be started on good, leafy hay that has a goat ration pellet sprinkled on top in the trough. After 3 or 4 days, the selected ration may be introduced slowly. Hay can be fed during the first part of the feeding program, but should be limited at the later stages to prevent goats from developing a large stomach.

As stated earlier, most goats can be self-fed for the entire feeding period. In a self-feeding program you should work to have feed for your goats at all times. This is called free choice. However, some goats will become fat and need to be hand fed. Fat deposition must be monitored throughout the feeding program. The feeding schedule can be adjusted to modify gain and body composition, but the goat must be continually monitored so changes can be made. Make changes gradually so your goat will stay on feed and continue to develop. Feeding is a daily responsibility.

The feeding program will dictate how your goat develops and matures. A good program cannot make up for the lack of superior genetics, but it will allow your goat to reach its genetic potential. To best monitor your results, weigh your goat on a regular basis. Know if your goat is gaining or losing weight and record this weight gain.

Measuring Your Success

Math can really help you figure out how well your project goat is growing. As you weigh your goat either with a scale or with a tape measure (at least every two weeks). You can compare this to others in the project or to the Growth Chart in the Appendix at the back of this book. Your goat should gain 1/3 to X pound per day over the project but may not gain very much at first. It will take some time to become adjusted to a new area and to new feed. If it gets really hot your goat may not gain also.

Examples of Math for the Data Book:

Let's say you have two weights on your record sheet. Calculate how many days there were between the weights and how much the goat gained. To calculate Average Daily Gain (ADG)

Starting Date Weight: June 11	351bs
Two week Weight: June 25	.
7/11 to 7/25 -7 14 days	421bs
42 lbs - 35 lbs = 7 lbs	

Daily Change: 7 lbs in 14 days

ADG: 71bs :- 14 days = 0.5 (1/2) lb/day

0.5lb ADG

You can also do the math to calculate how much feed it took to add weight on your goat.

Goat Nutrition

The goat is a member of the class of animals call ruminants. This means that they ruminate or chew their cud. The goat has four compartments to its stomach especially designed for digesting roughage or high fiber feed such as grasses, shrubs and hay. The four chambers of the stomach are called rumen, reticulum, omasum and the abomasum or true stomach.

A young goat's digestive system changes from drinking milk when very young, to eating forages as they get older. That is, the rumen gets larger and changes to a fermentation compartment as they grow. The rumen has many bacteria and protozoa which produce enzymes that help digest the high fiber feeds. The adult ruminant regurgitates the cud to continue digesting the feed at a later time. This is called "cud chewing". When the food particles are small enough they pass into the reticulum. Next the feed passes in the omasum where water is removed from the feed and nutrients, such as the volatile fatty acids, are absorbed through the wall of the omasum and become the energy source for the goat. The fermentation process continues in the abomasums or true stomach where the stomach acid, hydrochloric acid (HCl), continues the digestion before feed that passes into the small intestine.

You should study your goat and use all available information to make decisions on when feed changes should be made. Since goats do not deposit external fat as rapidly as other species of livestock, a self-feeding program can be effective. However, some goats will become too fat during the feeding period and should be hand fed twice daily to control the amount of feed consumed.

All livestock require five basic nutrients:

1. Water
2. Protein
3. Fats
4. Carbohydrates (or energy)
5. Minerals and vitamins

Water- Clean, fresh water is a daily necessity because water composes more than 70 of lean tissue and all body fluids must be replenished regularly. Never deprive your goat of water because water regulates the amount of feed a goat will consume. Also the more water a wether drinks the more he will urinate which will help keep down the chances of urinary calculi.

Protein - The primary constituent of the animals' body is protein. Dietary protein serves to maintain or replace protein in body tissues, provides for carriers of other nutrients and is a major component of various products such as meat, milk and fiber. Protein requirements of goats will vary according to their size, age and maturity. Young fast growing goat need higher protein diets to allow them to grow and develop their muscle potential. Rations that contain 16 to 18 protein are useful during this phase of the feeding program. It is very important to remember that meat goat receive goat feed, a ration this made especially for goats. Goats will perform much better on goat feed than on horse feed, for example, since goat feed is formulated nutritionally for the goat. Contact your local feed store for goat feed that includes a coccidiostat medicine in the feed.

Feed the goat the right amount. Do not over feed! Remember that goats have a daily requirement for protein. Try not to give more protein that is required since the extra is used for energy. Using protein as an energy source is

more expensive. When total feed intake is greatly reduced, protein supplementation may be necessary to provide adequate daily requirements for your goat. Make sure the feed you are feeding your wether is for ruminant animals. Never feed ruminants any feed that is labeled with this statement "do not feed to cattle or other ruminants". This is a violation of a federal law!

As a general rule of thumb, goats will consume 2 to 4 percent of their body weight on a dry matter basis in feed. The exact percentage varies according to the size (weight) of the animal, with smaller goats needing a higher intake (percentage-wise) to maintain their weight.

For example: Your goat weighs 35 lbs
 $35 \times 0.04 = 1.4$ lbs of dry matter/day

If the feed you buy is 90 dry matter (which is a common percentage) then you would feed your goat $1.4/.9 = 1.6$ total pounds of feed per day.

As your goat grows, offer him more each day. It may be best to hand feed your goat to keep him from getting too fat, giving $\frac{1}{2}$ of the feed in the morning and $\frac{1}{2}$ in the evening. Use a coffee can to measure the feed. You can add marking on the can at $\frac{1}{2}$ lb intervals to measure the feed and add more feed as he grows. The hand feeding also means you are able to check on your goat in the morning and the afternoons or evenings. Changing your goat's feed should be gradual. This can take several days. If you change the feed too quickly it can cause diarrhea. This will cause the microbes to die. Your goat needs these microbes; you can use Probiotics to replace these microbes.

Hay or Pasture - Goats are natural browsers. They will eat grass but actually prefer broad leaf weeds such as honeysuckle, privet hedge and blackberry briars. Some plants in SC are

poisonous and toxic to your goat. Some will only make the goat sick if he doesn't eat too much, others will kill him. Here is a list of some poisonous plants: Japanese yew, poison hemlock, water hemlock, oleander, rhododendrons, azaleas, locoweed, boxwoods, tansy and wild cherry trees. Please make sure your goat pen is clear of these plants. If your goat escapes your pen he may decide to eat something that is not good for him. Hay that has any mold should not be fed to goats, this can kill them.

If you can provide a "safe pasture" for your goat, then grazing your goat is a good choice. A safe pasture means a pasture that your goat cannot escape from and is free from your family dog, your neighbor's dog or wild dogs and coyotes. Remember dogs are often a vicious enemy of goats. If you do not have a safe pasture available you can feed good quality grass hay. To prevent goats from wasting hay you can make a hay rack to keep the hay off the ground and keep goats from walking all over the hay as long as the hay rack is goat proof.

Carbohydrates and Fats - The most common limiting nutrient in goat rations are energy producing carbohydrates and fats. (Grains and protein supplements are high in energy). An adequate supply of energy is necessary for efficient nutrient utilization. Inadequate energy intake will result in slow growth and weight loss. However, in goat rations, too much energy intake can be just as bad as not enough.

Minerals - The minerals of major importance in goat rations are salt (sodium and chlorine), calcium and phosphorus. Minerals are necessary and very important for proper growth of your wether and all goats. Make sure your minerals are for goats. Provide salt in a free

choice form or sprinkle 1 Tablespoon of table salt over goat rations at each feeding. Calcium and phosphorus are necessary for proper growth and development, and should be fed in a ratio of two parts of calcium to one part of phosphorus. Rations that contain high levels of phosphorus in relation to calcium may cause urinary calculi. Urinary Calculi are stones that form in the urinary tract and are very painful and could cause your animal to die. This is found in mostly wethers and bucks. The additions of ammonium chloride at the rate of 10 to 15 pounds per ton of feed or the addition of 2 tablespoons of Acid Pac per 5 gallons of drinking water can help prevent urinary calculi. Some rations list ammonium chloride on the feed tag.

Some points to remember are:

- Roughage is generally high in calcium and low in phosphorus
- Grains are generally low in calcium with moderate levels of phosphorus
- Most protein supplements are high in phosphorus with moderate levels of calcium

Vitamins - Vitamins are essential for proper body function and are required by goats in very small amount. Only Vitamin A is likely to be deficient. If you think this is a problem add a small amount of Alfalfa hay or Alfalfa pellets. Too much Alfalfa can cause Urinary Calculi. It is good practice to occasionally inoculate goats with B complex Vitamin. This promotes good health and helps them to eat well.

Care of the Goat

Hoof Trimming - A goat's hooves will grow long if they are not naturally worn down by walking over rough terrain. Hooves should be trimmed about every 6 weeks. Always trim

hooves 1 to 2 weeks before a show in case you accidentally cut into the quick and temporarily cripple the goat. This will allow the goat time to heal before the show.



If foot rot develops, (foot smells really bad) have your parent treat it by trimming the hoof closely and placing the foot in a zinc sulfate foot-bath and be careful.

Dehorning or tipping for SAFETY - Your project goat will most likely have horns. You need to work carefully with your goat so that you do not get hurt by the horns. Horns can be sharp and the goats will jump when you try to catch them. You can either tip the horn, which means cutting the tips off and rounding the ends, or tape something over the horns (tennis balls work great). Tipping can be done easily without causing much stress to the goat. Horns should be tipped 4-6 weeks prior to the show to allow the horns to heal properly. Dehorning is more expensive and needs to be done by a vet or someone who is very experienced in this procedure. You can actually lose a goat from dehorning at the age of 4 months old.

Dehorning or tipping rules are made for the safety of the exhibitor.



GOAT HEALTH

The key to a healthy goat is the development of a preventive health program. Most goats purchased for the project are on a health maintenance program and have had vaccinations. Project goats have had the clostridium C & D and a tetanus vaccine. Vaccinations and treatment for internal parasites are recommended. Use a veterinarian for health and medical advice and always follow label directions for any medication or dewormer. Withdrawal time means the number of day needed for the medicine to clear the body. Remember these are meat goats! Disclosures and disclaimers; remember we are not veterinarians, if you have any problem with your goats' health call your vet. They will diagnosis and treat your goat. This book is only to help you with your goat.

Enterotoxemia - A major cause of death in goats is enterotoxemia or overeating disease.

Cause: Goats that have their feeding schedule abruptly changed or consume large amounts of grain.

Symptoms: not any to say of;

Treatment: None by the time you have found out what is wrong the goat is already dead.

Urinary Calculi - This is the number one killer of wether goats! This is stones in the kidneys and in the urinary tract. This will block the urine from leaving the body and will kill your goat! If not treated quickly the goat will not make it. Prevention is the best: add $\frac{1}{2}$ cup of Apple Cider Vinegar to water each day. You will have to dump out the old and make new each day.

Or add 1 tablespoons of Acid Pac to 2 gallons of water (this should be done at least twice a week). Make sure your goat is drinking water. The more water they drink the less chance the stones will form. One way to make sure he is drinking is to add 1 tablespoon of table salt to each daily feed ration. Do not feed your goat CORN of any type. Make sure your feed is for goats and is 2:1 on Calcium to Phosphorus. Too much Alfalfa hay can also cause this problem. Plain and simple: if you have to call your vet this will be very expensive. Prevention is easier, less expensive and better for you and your goat.

Symptoms: Standing with feet apart trying to urinate and cannot. Also kicking at belly and hollering. Not eating or drinking.

Treatment: Drenching goat with Apple Cider Vinegar and water (20 cc ACV to 10 cc water every hour). Acid Pac if you have one. Call vet and or your advisor.

Your goat must have plenty of fresh water at all times!!

Coccidiosis - Coccidia are intestinal protozoa that live in the lining of the intestine and destroy these cells. This is very contagious to your herd. Most commercial goat rations are medicated with a coccidiostat that should help control coccidiosis.

Symptoms: Goats have a sticky black diarrhea, dehydrated and may have weight loss and be weak.

Treatment: Treat water with corrid, you may use this with all your goats. Any sick goat should be separated from herd and treated.

Internal Parasites - Are stomach or round worms (nematodes), flukes (flat worms), Protozoa, Lungworms, Pinworms and Tapeworms. The most serious are the stomach worms and these will kill your goat if not treated quickly. Prevention is having feed off the ground and cleaning the pen area of your goat. Also keeping your goat pen free of manure and cleaning any feed that has fallen on the ground. Rotation of your goat pen every month and keeping the pen dry.

Symptoms of Internal Parasites: Rough coat, gum and eyelids are pale. Your goat may look bloated and depressed. Goat is not gaining weight.

Treatment: Dewormer as soon as possible. We will be selling these goats at the end of the show season. Therefore you will have to watch the withdrawal time on the dewormer you use. If you have any questions please ask your vet or your county advisor.

External Parasites - Are ticks, fleas, flies, lice, ear mites and bots.

Symptoms: Missing hair, rough coat

Treatment: Some dewormers will treat both internal and external parasites. You can also find sprays at the feed stores that will help.

Acidosis - Low rumen and body pH usually caused by too many carbohydrates such as grain and molasses.

Symptoms: Goats quit eating feed, quit chewing their cud and are depressed and can

be bloated, some may have diarrhea. Some will founder and die if not treated.

Treatment: Give lots of hay and probiotics and also baking soda. After the goat improves start back with a rationed feed little at first until the goat is much better.

Soremouth- Also known as Contagious Ecchyma is a viral disease. This virus can affect humans, so be careful when handling an infected goat.

Symptoms: formation of scabs on the lips and mouth area.

Treatment: Softening ointments or dilute iodine may be rubbed into lesions to help the healing. Once a goat has this it will not have it again.

Ringworm - Is a contagious fungus. Goats can pass it one to another and can also pass it to you. It can be rubbed on skin or equipment.

Symptoms: a red ring area that itches.

Treatment: You will have to see a doctor if you get it. An antibiotic from your vet will be needed for your goat.

A good sanitation program is necessary to control the spread. * Novasan -3 ounces per gallon of water or a 10 bleach solution may be sprayed on affected equipment and premises.

Pinkeye - This is a contagious disease. It can be passed to other animals and humans. Goats are susceptible to pinkeye especially after they have been transported to a new location. Dry, dusty pens and constant exposure to sunlight can be contributing factors.

Symptoms: Excessive watering of the eye and clouding over the pupil.

Treatment: There are several medications on the market for pinkeye. Penicillin is used most. If you do not notice

6.

improvement within a few days after treatment, contact your vet.

Pneumonia is an infection of the lungs.

Symptoms: Snotty, runny nose, stands around with head down, sounds congested, elevated temperature and coughs and breathes rapidly or with difficulty.

Treatment: call your vet they have several antibiotics that work quickly.

Pneumonia will kill a goat if not treated quickly!

Illegal Drugs - State and federal laws have regulations concerning the use of drugs for livestock and are established to protect human and animal health. These instructions and restrictions on product labels must be strictly followed. The labels state the species or class of livestock for which the drug is to be used, the recommended ways to treat the animal with the drug, the approved dosage rate and the specific conditions to be treated. Therefore, when treating animals with drugs, you should always follow label instructions and consult your veterinarian for proper health care.



Controlling Parasites

Your goat will grow and gain weight best when he is kept free of both internal and external parasites. Parasites, while stealing nutrition from your goat, cause severe stress. Goats with parasites spend more time trying to rid themselves of their discomfort than they do eating and growing. It is essential that your wether goat is monitored closely for parasites and treated appropriately for him to be healthy. The most common parasite problems in goats include stomach worms, coccidia and lice.

"Wormy" goats will eat continually and still lose weight, because all the nutrients are going to feed the worms. Soft stool is common and diarrhea and "bottlejaw" (sagging skin under the chin) can result when an animal is seriously "wormy". If not treated immediately when you find bottlejaw you will lose your goat. Your goat's coat may also look dull and unthrifty.

A veterinarian can perform a fecal test to determine worm infestation. However, you can use a fairly reliable field test to check for worms yourself. Pull the lower eyelid down. The inside of the lower eyelid should be red to bright pink in color if the goat is healthy. Wormy goats have inside lower eyelids that are light pink, and severely infected goats (who are probably on the verge of dying) display white eye linings. It is very difficult to bring an extremely anemic goat back to health.

If you believe your goat has worms, you should treat him by drenching (giving oral de-wormer medicine) to him immediately. The following are a few of the de-wormers available at your local feed store, and their dosages. You must dose your animal as instructed based on their current weight. Improper dosing will result in a poor kill of the parasites and may lead to resistance to the de-wormer.

Ivermectin (Ivomec) ... an injectable product for use in cattle and swine. Given orally at the dosage of 1cc per 50 pounds of body weight. Example: a 60 pound wether will need 1.25 ccs by mouth. This de-wormer will also help with external parasites

Cydectin (Moxidectin) ... this is a purple pour-on for cattle. The dosage for goats is 1 cc per 15 pounds of body weight given orally. **Do not pour on your goat!** Example: a 60 pound goat would need 4 ccs. This de-wormer is a favorite

of many goat producers and results in a quick and efficient kill of most parasites.

Safeguard (panacur)...one of the "white" dewormers. To be given orally at the dose of 2 ccs per 50 pounds of body weight. This amount can be doubled without fear of overdose to treat tapeworms. (If you are seeing worms in your goat's droppings, it is tapeworms). Example: a 50 pound goat would receive 2ccs orally normally, or 4 ccs orally if you were treating for tapeworms.

WARNING: Many parasites common to goats have developed a resistance to a particular dewormer. If your dewomer does not seem to be working for you, change immediately to a different dewormer. If your goat continues to be "wormy", consult a veterinarian for a fecal test.

Lice can also cause major health problems for goats. Lice come in two basic varieties: blood-sucking and non-blood-sucking. Viewing the parasite under a microscope is the only way to determine the difference. Blood sucking lice can cause anemia and death.

Many times you may think your goat is "wormy" then you treat for worms and still have ragged-looking animals. Their coats are rough and they continue to lose weight. At this point, TREAT FOR LICE. Don't worry which type they are (blood-sucking or not); just treat for them. Synergized DeUce is a product which is inexpensive, can be bought over the counter in gallon bottles, and is easy to apply. A squeeze bottle with a small applicator tip is desirable. An old mustard bottle will work wonderfully. Only a small amount of Delice (approx 1-2 ccs for a goat under 100 pounds) is required and is applied along the back of the goat from the base of the neck to base of tail. Results should

be visible within seven days. Goats should be treated for lice every 4 weeks.

Another parasitic threat to your goat comes in the form of coccidian. Coccidia is the most common cause of diarrhea in kids between three weeks and five months of age. Coccidia can be found everywhere in the environment and otherwise healthy goats do not show clinical signs when exposed to it. However, coccidian is opportunistic. It affects goats that are under stress or have otherwise weak immune systems. Goats kept in crowded, dirty conditions, who are sick, or who are not properly fed and watered are susceptible to coccidiosis. You should suspect coccidiosis if you kids show poor growth rates, weight loss or abnormal stools. Coccidia destroys the lining of the gut. The sign of coccidian are colic (belly ache) and diarrhea. These result from destruction and inflammation of the intestinal lining (mucosa). Massive infections can lead to bloody diarrhea and death from blood loss. If the kid survives, the damage to the gut can be so severe it leaves you a "runty" kid. This "ill thrift" results when the damage to the gut prevents proper absorption of nutrition. It is important that you feed a goat ration that is medicated with a "coccidiostat" to help prevent a coccidian infection. However, if you suspect coccidian, the following is the preferred treatment method by goat producers.

Albon concentrated Solution 12.5 or Or-Methox Concentrated Solution 12.5 straight from the bottle; do not mix with water. Given Orally- Administer straight into the mouth using a syringe (remove the needle). Do not just add it to the kid's water because you will not know if he receives the correct dose.

Five day treatment -you must treat for the full five days.

Day one: 1 cc per 5 pounds - given orally.
Example 60 pound goat will need 12 ccs.
Day 2-5: 1cc per 10 pounds
Example 60 pound goat will need 6 ccs,



Training and Preparing to Show

Exercise can be very beneficial to your goat and to your success in the show ring. Goats are very active animals. If given enough room, they will exercise themselves. Have objects like big rocks or wooden spools in your pen for climbing and jumping. This will provide your goat with an excellent opportunity to exercise itself. A goat that exercises will handle harder and firmer, and will give you an advantage in the show ring.

Washing and Grooming - It is not always necessary to wash your goat, but it can be beneficial. Use a mild soap sparingly, rinse the animal thoroughly and dry the goat

completely. Then, brush your goat with a brush on a regular basis. Brushing removes all the dead hair and dirt. Grooming also can enhance the look of your goat in the show ring. Grooming refers to trimming uneven lengths of hair and generally cleaning up the overall appearance of your goat. Most youth that shows will cut the hair of the goat and the tail.

Halter breaking is an excellent way to start the gentling process. Collars, chains or inexpensive rope halters can be made or purchased from feed and livestock supply stores. Goats should be caught, and worked with on a regular basis. Once your goat begins to calm down and becomes gentler you can start teaching him to lead. Have someone assist you by pushing the goat from behind whenever it stops. Teach the goat to lead with its front shoulder even with your leg. The goat's head should be in front of your body and should be held high.

Training Your Goat to Show- Some people are natural showmen, but all exhibitors can learn techniques to improve their showmanship skills. Pre-show preparation is the amount of time required to train a goat for showing. Pre-show preparation depends on the goat, the physical size and experience of the exhibitor, and the intensity of training. Some goats are gentle and easy to train for showing; and other goats are more difficult or nearly impossible to train. Most goats can be trained if enough time and effort is spent with them. Don't give up!

Setting up Your Goat - The next step in the training process is to lead the goat and properly set it up. Setting up refers to the way the goat stands in the show ring. Set the legs up square under the goat. First, set up the front legs, then place the hind legs, keeping the body and neck straight and the head in a high, proud position with the halter, chain or collar. You

should stand next to your goat at all times. After the training is complete, you may wish to practice showing. Set up your goat and show it while someone else handles it. You must make sure the goat looks good at all times. If the goat responds properly, return it to the pen and do not overwork it. If the goat does not show properly when the judge handles it, you may get overlooked. Most of the judges will touch your goats' legs and back, it takes lots of practice for a goat to get used to that.



Sportsmanship

We all want to win the blue ribbon for 1st place. However, there can only be one.

Good Sportsmanship doesn't start in the ring. It starts when you get out of the truck or car and will last until you get back into the truck or car. Everyone will not remember the number of blue ribbons you win, but they will remember your sportsmanship and character.

Good Sportsman

- Follow all rules
- Be ethical and honest
- Do not cheat
- Treat your goat with kindness
- Treat others with kindness, courtesy and respect

Accept the ruling of a judge without complaining

Exhibit your own work

Ethics will be a part of your entire life. Don't let your desire to win outlast your ethics. There are ways to make your goat better than it really is. Some of these are unethical and not what we want you to do. Remember you and your family are being watched by others. There are groups who do not want us to show goats and are waiting for someone to treat a goat unethically so they can use it to end goat shows. If you always act as if someone is using a camera to record what you are doing maybe you will think before you act. And try this, are you doing something that you would not want others to know, if the answer is yes then maybe you shouldn't do it. So please treat your goat and others the way they should be treated.

Show Time

Your planning, feeding, fitting, training and grooming have brought you and your goat this far - **to the show ring.** Now, your skill in exhibiting your goat- showmanship- cannot be emphasized too strongly.

You should be mentally and physically ready to enter the show ring for competitions. By completing the pre-show activities, you should have confidence that you can do an effective job showing your goat. You should be neat in appearance, but not overdressed. Do not wear a hat or cap, sunglasses or open toed shoes.

Before the show begins, become familiar with the show ring. When the judging begins, watch to see how the judge works the goats. You will feel more comfortable and confident if you know what the judge will want you to do. Each judge is different and does things differently.

When the appropriate class is called, take your goat to the show ring. If the ring stewards do not line up the goats, find a place where your goat will look its best. Avoid corners of the ring and leave plenty of space between your goat and others. Set your goat up, making sure the legs are set properly, and keep the body, neck and head in a straight line with the goat's head up and alert.

A good showman must be alert and know where the judge is at all times. Remember to keep your eye on the judge, keep your goat under control, and **do not stand between your goat and the judge!**

Set up your goat and be ready before the judge gets to you. Be careful not to cover your goat with your body and block the judge's view. In large classes, it may take 20 minutes before the judge handles your goat. After handling your goat, the judge usually will step back and look at it. Be sure to keep the goat's head up and body, neck and head in a straight line. **Also it is very important to watch the judge and your goat at all times while in the show ring.** It is your responsibility to watch the judge so you will not miss any of his or her directions. If your goat is not pulled the first time, keep trying.

If your goat is pulled, circle it out of the line and follow the directions of the ring steward while continuing to keep an eye on the judge. Move your goat with style and at a steady, moderate pace. Remember to keep show at all times, because a class is not over until the ribbons are distributed.

In the showmanship class a judge will ask you questions. The older you are the harder the questions will be. Read all you can about goats, in this book and others. Look up websites that have goat health. Here are a two that will be helpful:

Jackmauldin.com Tennesseemeatgoats.com

Be courteous to fellow exhibitors. A good showman will emphasize strong points and minimize weak points of a goat. Be alert at all times and always display a pleasant facial expression (smile). Remember to use good manners and always remember to:

Be a good sport, a graceful loser, a humble winner and have fun. Also, be courteous to the judge and the other exhibitors at all times

Show Goat Qualities

The following are important qualities in show goats:

- Structural Correctness**
- Muscle**
- Volume and Capacity**
- Style and Balance**
- Growth Potential**

Structural Correctness refers to the skeletal system of bone structure of an animal. A goat should hold its head up and the neck should extend out of the top of the shoulders. A goat should travel and stand wide and straight on both front and rear legs with the legs placed squarely under the body. A goat should have a strong, level back, and a long rump with slight slope from hooks to pins. Your goat should be heavy boned and strong on its pasterns. Open shouldered, weak-backed, weak-pasterned, steep-rumped goats should be avoided.

Generally, a goat that walks and stands wide is going to be heavier muscled. The goat should have deep, heavily **muscled** legs and

rump. When viewed from behind, the widest part of the leg should be the stifle area. The goat should have a broad, thick back and loin that is naturally firm and hard handling. A good goat should be wide through its chest floor, with bold shoulders and prominent forearm muscle. The chest and forearm are the best indicators of muscling in thin goats.

Volume and Capacity refers to the relationship of body length to body depth and body width. Goats should be long-bodied, with adequate depth and spring of rib. A goat that is short-bodied, shallow-bodied, narrow-based and/or flat-ribbed show lack of volume and capacity.

Style and Balance refers to the way all of the body parts blend together. This means how the neck blends into the shoulders, the shoulders blend into the ribcage, the ribcage into the loin, the loin into the rump, and the overall "eye appeal" of a goat. When viewed from the side a goat should have a smooth shoulder, level back, trim middle and straight legs. A goat that is balanced and holds its head up will be the first on you notice when you walk in the pen.

The **Growth Potential** refers to the ability of the animal to grow rapidly. Growth potential of an animal is very important. Generally, a large framed goat that shows a long head, neck, cannon bone and body, will grow faster, be larger and be more competitive in the show ring.



Early Preparations for a goat show.

Send in registration papers to fairground by due date!

Keep dates and times for shows and directions for fairgrounds

Train your goat for showing

Practice good showmanship techniques

Study questions judges may ask

Having a way to transport your goat to and from show

Preparing for a goat show in near future

Trim feet of your goat

Groom your goat (wash, trim, etc.)

Check on health papers (only needed for Orangeburg show)

Take only the amount of feed you think you will need or a little extra

Bring hay if you think your goat will eat it

Take water for your goat (some fairs have city water, goat won't drink)

Bring extra clothes for showing and for cleaning your goat.

Check your show box and see if you need to replace or add anything

Bring feed and water buckets (make sure your name is on them)

LEAVE IN PLENTY OF TIME, THE SHOW WILL NOT WAIT ON YOU

These are meat goats. At the end of this project you will need to try to have a buyer there to purchase your goat. To be able to sell your wethers you will have to remember to keep it healthy and free from chemical residues (Dewormer and other medications). All medicines have a withdrawal date and you must follow it to be able to sell your goat.

Is your goat Happy and Healthy or Sick and Puny?

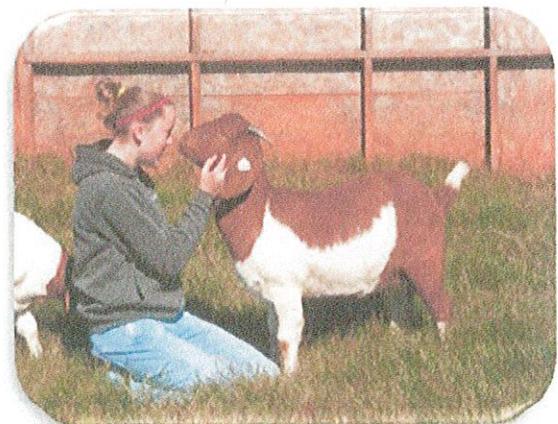
	Happy and Healthy	Sick and Puny
Appearance	Bright, Active, Alert, Playful, Shiny Coat	Dull, Depressed, Standing Alone, lying Down, Dull & Rough Coat, Head Down
Eyes	Bright and Moist	Dull, Sunken, Runny, Glazed
Nose	Dry	Watery, Snotty
Stomach	Normal Shape	Bloated or Sunken In
Feet and legs	Normal Shape Walking Good	Iame, Swollen, Smelly Hooves, Hard to Walk

Goats Medical Chart:

Heart Rate: 70-90 beats per minute (a young kid can be doubled)

Respiration Rate: 10-30 breaths per minute (kid 20-40)

Temperature: 101.5- 104



PLEASE PRINT OR TYPE

LAST NAME _____ FIRST NAME _____ MIDDLE INITIAL _____

LEVEL I & II
LIVESTOCK ENTRY FORM _____
JUNIOR DEPARTMENT _____ GRADE _____
BIRTH DATE _____

E
AG

ADDRESS _____

CITY ZIPCODE PHONE

SIGNATURE OF LEGAL PARENT OR GUARDIAN

CONSULT PREMIUM BOOK FOR DIVISION AND CLASS NUMBERS, ENTRY FEES, AND ENTRY CLOSING DATES

TOTAL ENTRY FEES

Amount Enclosed

PENS REQUIRED _____
CHAPTER OR CLUB _____

LEADER/INSTRUCTOR TELEPHONE NUMBER _____

Appendix B

Growth Chart: Determination of Goat Weight Utilizing a Weigh Tape

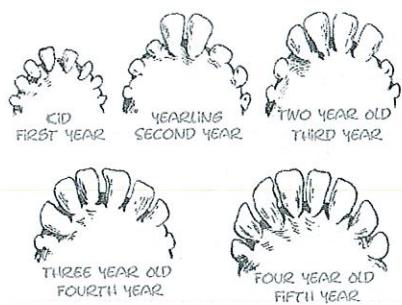
Hearth Girth (inches)	Goat Weight (pounds)	Hearth Girth (inches)	Goat Weight (pounds)
17 $\frac{3}{4}$	21	25 $\frac{1}{4}$	57
18 $\frac{1}{4}$	23	25 $\frac{3}{4}$	60
18 $\frac{3}{4}$	25	26 $\frac{1}{4}$	63
19 $\frac{1}{4}$	27	26 $\frac{3}{4}$	66
19 $\frac{3}{4}$	29	27 $\frac{1}{4}$	69
20 $\frac{1}{4}$	31	27 $\frac{3}{4}$	72
20 $\frac{3}{4}$	33	28 $\frac{1}{4}$	75
21 $\frac{1}{4}$	35	28 $\frac{3}{4}$	78
21 $\frac{3}{4}$	37	29 $\frac{1}{4}$	81
22 $\frac{1}{4}$	39	29 $\frac{3}{4}$	84
22 $\frac{3}{4}$	42	30 $\frac{1}{4}$	87
23 $\frac{1}{4}$	45	30 $\frac{3}{4}$	90
23 $\frac{3}{4}$	48	31 $\frac{1}{4}$	93
24 $\frac{1}{4}$	51	31 $\frac{3}{4}$	97
24 $\frac{3}{4}$	54	32 $\frac{1}{4}$	101

Chart your Wethers Goat's Growth

Beginning Weight ____ lbs Final Weight ____ lbs Final ADG: ____ lbs/day

Appendix C

Weighing goat before a show



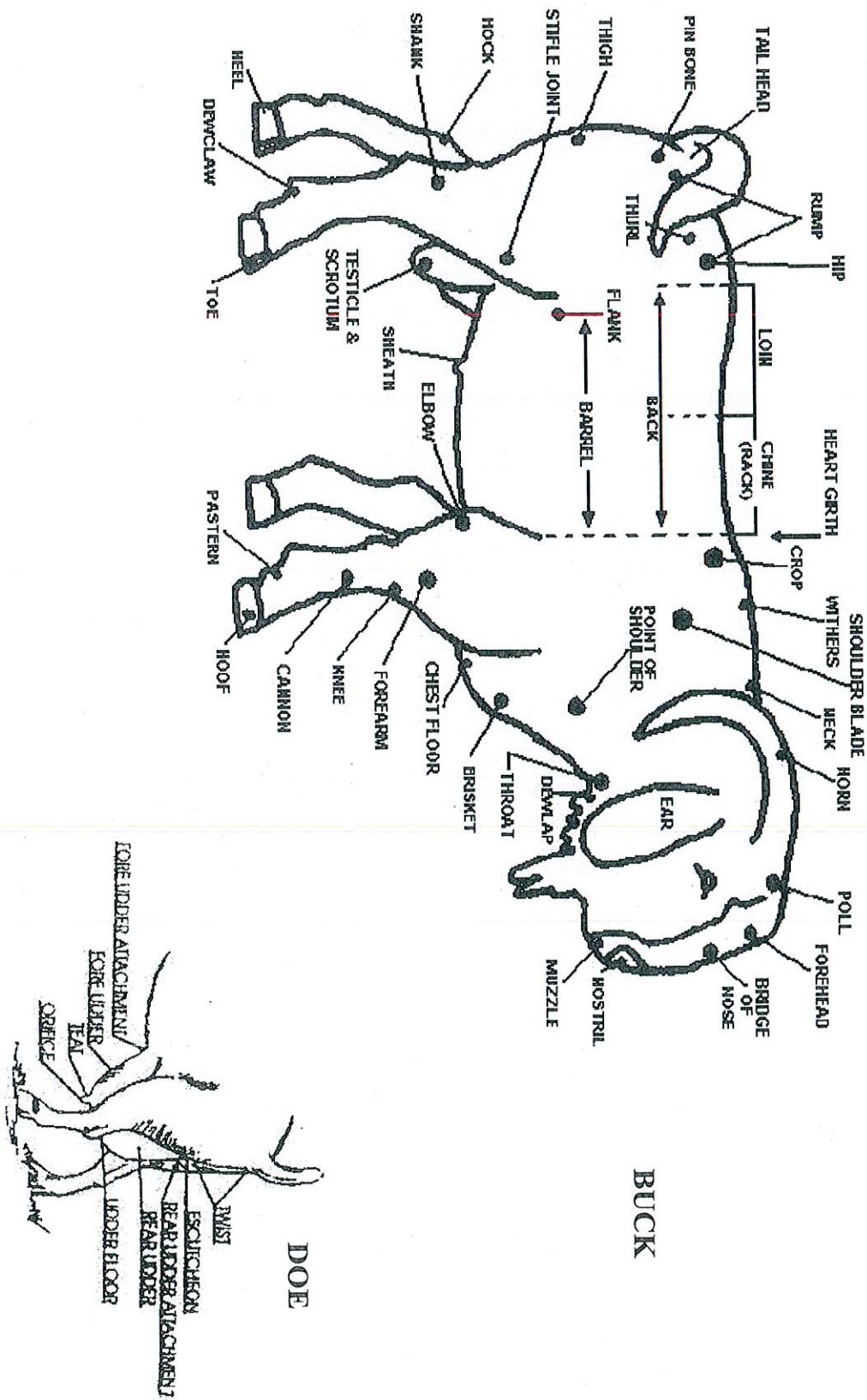
Appendix D

Judging a Goats Age by its Teeth

Baby Teeth		Permanent Teeth	
1 st pair incisors	at birth	1 st pair incisors	15 month
2 nd pair incisors	at birth	2 nd pair incisors	21 months
3 rd pair incisors	at birth	3 rd pair incisors	27 months
4 th pair incisors	at birth	4 th pair incisors	36 months
Premolars	3 months	Premolars	17-20 months
		1 st molar	5-6 months
		2 nd molar	8-10 months

LEVELS I AND II

BOER MEAT GOAT BODY PARTS



Judges Score Sheet
Meat Goat: Levels I & II

Name	Club
------	------

MEAT GOAT EQUIPMENT & SUPPLY ID

Alcohol		Hoof Plane
Balling Gun, Metal or Plastic		Iodine (Betadine)
Bearing Retainer		Kid Holding Box
Blood Stop Powder		Kid Nursing Bottle
Breeding Service Memo		Leg Snare, OB Kid Puller
Brush, Plastic Stiff Bristles		Liquid Soap
Burdizzo		Mineral Oil
Caprine Bucket		Neck Chain, Metal
Clipper Blade, Bottom		Neck Chain, Plastic
Clipper Blade, Top		Needle, Disposable
Clipper, Electric Hair		Nipple, Pritchard Flutter
Clipper Oil		Rope Halter
Connecting Ring, Metal or Plastic		Registration Form
Disbudder		Scalpel
Ear Tag Applicator		Surgical Gloves, OB
Ear Tag, Plastic or Metal		Syringe, Automatic
Elastrator		Syringe, Disposable
Elastrator Band		Tattoo Applicator
Electrolytes		Tattoo Ink
Extension Cord		Tattoo Number/Letter
Feeder, Fence-line		Teat Spray
Goat Fitting Stand		Thermometer
Hair Coat Dressing		Tie-Out Chain, Ringside
Heat Lamp		Vet Wrap
Hoof Trimmer		Wether Tube

Study Guide Level I & II

MEAT GOAT EQUIPMENT & SUPPLY ID

LEVEL I EQUIPMENT ID

Balling gun (plastic or metal)
Brush, Plastic Stiff Bristles
Caprine Bucket
Clipper Blade, Bottom
Clipper Blade, Top
Clipper, Electric Hair
Clipper Oil
Connecting Ring (Metal or Plastic)
Disbudder
Extension Cord
Feeder, Fence-line
Goat Fitting Stand
Heat Lamp
Hoof Trimmer
Kid Holding Box
Kid Nursing Bottle
Liquid Soap
Neck Chain, Metal
Neck Chain, Plastic
Needle, Disposable
Nipple, Pritchard Flutter
Rope Halter
Syringe, Disposable
Teat Spray
Thermometer

LEVEL II EQUIPMENT ID

Alcohol
Bearing Retainer
Blood Stop Powder
Breeding Service Memo
Burdizzo
Ear Tag Applicator
Ear Tag (Plastic or Metal)
Elastrator
Elastrator Band
Electrolytes
Hair Coat Dressing
Hoof Plane
Iodine (betadine)
Leg Snare, OB Kid Puller
Mineral Oil
Registration Form
Scalpel
Surgical Gloves, OB
Syringe, Automatic
Tattoo Applicator
Tattoo Ink
Tattoo Number/Letter
Tie-Out Chain, Ringside
Vet Wrap
Wether Tube

MEAT GOAT TERMS - LEVEL I & II

ABGA	American Boer Goat Association
AMGA	American Meat Goat Association
Anemia	Deficiency of Red Blood Cells and or a quantity of pigment known as hemoglobin. The eyelids and gums can be very light, grey or white. Often a sign of parasitism and a need for deworming.
Bloat	Excessive gas build up in the rumen. May result from sudden overeating of grain.
Bred Doe	A pregnant doe.
Buck	A male goat.
Buckling	A male goat usually between six months to one year.
Butterfat	The fat content or cream of the milk. Often expressed in percent of milk.
Butting	Method of fighting among goats in which they hit each other with their heads.
Capriculture	Goat husbandry
Castrated	Removal of testes of male goat.
Chevon	Meat goat.
Chewing cud	As with all ruminants, digestion is accomplished by a long process in which food is subjected to bacterial action and then is regurgitated for more chewing.
Creep feeding	A feeding area which allows goat kids to eat and not adult goats.
Cull	Animal taken out of herd because of below herd standards.
Dam	Mother goat.
Dehorn or disbudding	Removing of horns.
Dental pad	Part of the gums on the upper jaw. It is basically a substitute for top front teeth.
Doe	Female goat.
Doeling	A female goat usually between six months to one year.
Dry goat	Not in milk.
Fill	Amount of water and feed in a animal.
Groom	Hair properly groomed, hide soft and pliable.
IBGA	International Boer Goat Association
Kid	Young goat under six month of age.
Nurse goat	Goat nursing kids other than its own.
Polled	Goat born without horn buds.
Ration	Total feed given during 24 hours
Scours	Diarrhea or loose manure.
Scrub	An animal of unknown or unproven ancestry.
Scurs	Incomplete horn growth resulting from inadequate removing of the horns. Usually these are just short pieces, but sometimes have to be removed if they begin to grow into the goat's skull.
Sire	Father goat.
Wattles	Hair-covered appendages of flesh hanging from the throat area. Sometimes there are "misplaced" wattles on other parts of the body. They serve no real function.
Wean	Kid taken away from its mother.
Wether	A buck that has been castrated or neutered.
Yearling	A buck or doe 12 months or more.