

FEEDING and SHOWING 4-H Market Goats

Jerry Woodard, PAS Livestock Feeding Specialist Premier Feeds

INTRODUCTION

The purpose of this guide is to provide information to leaders, parents, and club goat feeders for the development of successful club goat projects. 4-H club goat projects for youngsters are growing in popularity every year; consequently, the competition is becoming greater every year.

Since goats are small, easy to work with, and demand a relatively small amount of space, many 4-Hers have discovered goats are an excellent choice as a club project. Goats provide a meaningful livestock experience in a relatively short time.

GENERAL

Once a 4-H member has decided to have a club goat project, there are several questions that must be answered before he/she begins. It is the responsibility of each exhibitor to read the general rules and regulations, as well as special rules, governing the shows they will attend. This will tell you the number of goats you can enter, weight limits, ownership dates, and entry deadlines.

The date of the show is extremely important because they determine the age and size or weight of the goats and at what time of year they should be purchased. Most shows require that goats have their milk teeth at show time. Goats will usually hold their milk teeth until they are 10 to 12 months of age. After this time, you are taking a risk that a goat will lose his baby teeth thus making him ineligible.

Under normal conditions goats will gain approximately 2-2.5 pounds per week. There are differences in frame size and not all goats can be fed to the same final weight. Large frame goats may be correctly finished at 120 pounds, while small farm goats may be correctly finished at 80 pounds. One must learn to look at indicators of frame size and growth (length of head, neck, and cannon bone) and determine at what weight a goat will be correctly finished. At the time of purchase, if you know approximately what your goat weighs and how long it is until show time, then you can calculate if a goat will have to be fed light, moderate, or heavy to meet the weight limit requirements of the show that you want to enter. Remember that size does not make a good goat. There are good small goats and good big goats. Your management program is the key.

FACILITIES AND EQUIPMENT

One of the major advantages of a club goat project is that young people can raise goats without having expensive facilities. A barn or shed where goats can retreat from cold, wet conditions and a pen with outside exposure is all that is necessary. The following outline will discuss the facilities and equipment needed for a club goat project. It should be understood that a young person that has a couple of goats for a local or county show would not necessarily need all of the equipment listed below.

Barns and/or Sheds

Goats need a combination arrangement: access to a shed and an area where they can get outside in the sunshine. The shed area should have at least 15 square feet of space for each goat. The outside pen needs to be as big as possible to allow the goat to exercise himself. The shed should be well drained so water does not accumulate under the barn. Sheds or barns should open to the east or south. Barn temperature is critical. Structures should be well ventilated, so goats will remain cool and continue to grow during the summer months.

Pen Fences

Fence height should be at least 42 inches tall to keep goats from attempting to jump and should be predator proof. If you are using net wire fences, 12-inch mesh should be used rather than 6-inch mesh to keep goats from getting their heads hung. However, the most desirable pens are constructed from galvanized livestock panels that are 5 feet tall with 4-inch squares.

Feeders

Self-feeders are often used in the feeding of club goats. Self-feeders should be blocked up at least 6 inches off the ground. Hand feeding goats should be done in movable troughs which hang on the fence at the appropriate height. Troughs should be hung at the same height as the top of the shoulder of the goats being fed. These movable troughs need to be taken down and cleaned regularly. Likewise, hay and mineral feeders need to be raised off the ground. This will help to reduce the spread of disease. It is also important to make sure that goats are unable to stand in their feed trough as they will urinate or defecate on the feed.

Water Containers

Clean water is the most important ingredient in feeding club goats. Water troughs should be small so they can be drained and cleaned on a regular basis. Remember that water troughs should be checked on a daily basis. Water troughs should be located in the shade to keep water cool. However, in the hot summer months, some goats tend to drink too much water and appear "full". Water should never be totally removed for the goat, but rationing water prior to the show will help remove the belly from the goat and increase ones chances in the show ring. Remember, do not dehydrate your goat. The proper amount of fluids is vital to the feel and condition of your goat.

Necessary Equipment

The following list of equipment is considered necessary for feeding and exhibiting club goats.

1. Shovel to clean pens occasionally
2. Scales to weight goats
3. Trimming table with the following dimensions: 45" x 20" x 18" tall.
4. Electric clippers with 20 and 23 tooth combs and cutters, all purpose blade (close to the skin) and plucking blade (leaves 3/8"). Small animal grooming clippers with detachable blades work well, also.
5. Syringes and needles
6. Goat blankets and/or socks

7. Halters, collars and/or show chains

Optional Equipment

The following additional equipment is often acquired by those families which feed several goats and exhibit goats at several major shows:

1. Showbox to hold equipment
2. Hot air blower or dryer
3. Portable livestock scales
4. Extension cords
5. Electric fans

SELECTION

The selection of a goat for a project is one of the most important decisions made by a feeder. The type of goat you select at the beginning of the project will have a major influence on the results at the end of the project. However, one must remember that a winning goat is a combination of good selection, good nutritional management, proper grooming, and outstanding showmanship.

People differ in their ability to select prospective animals. Some have a natural eye for selecting young animals, while others never develop this ability. Do not hesitate to take advantage of a person with these skills. It may be your county agent, FFA instructor, parents, or another leader in the county. Also, many breeders are willing to assist you in your selection program.

When selecting young goats one must be conscious of age and fat thickness. Young goats that are bloomy and fat always look good, while young goats that are thin do not look as good. Learn to look past fat and recognize muscle so that you can pick those goats that are genetically superior.

Anytime you purchase goats, it is important to know a little about the producer you are buying from. Do not hesitate to ask questions about their goat's bloodlines and the age of the goats in question.

When selecting goats there are five major areas of emphasis that need to be considered. They are structural correctness, muscle, volume and capacity, style and balance, and growth potential.

Structural Correctness

Structural correctness refers to the skeletal system or bone structure of an animal. Goats should be up-headed, with the neck extending out of the top of the shoulders. Goats should travel and stand wide and straight on both their front and rear legs, and their legs should be placed squarely under the body. They should have a strong level top, and a long rump with a slight slope from their hooks to their pins. Goats should be heavy boned and be strong on their pasterns. Open shouldered, weak pasterned, steep rumped goats should be avoided.

Muscle

Generally, goats that walk and stand wide are going to be heavier muscled. Goats should have a deep, heavily muscled leg and rump, with the widest part of the leg being the stifle area, when

viewed from behind. They should have a broad, thick back and loin that is naturally firm and hard handling. Goats should be wide through their chest floor, with bold shoulders and a prominent forearm muscle. The chest and forearm of a goat are the best indicators of muscling in thin goats.

Volume and Capacity

Volume and capacity refers to the relationship of length of body with depth of body and width of body. Goats should be long bodied, with adequate depth and spring of rib. Try to avoid selecting goats that are short bodied, narrow based, and flat ribbed.

Style and Balance

Style and balance refers to the way all body parts blend together, how the shoulder blends into the rib cage, the rib cage to the loin, the loin to the rump, and how eye-appealing a goat is. When viewed from the side, a goat should be smooth shouldered, level topped, trim middled, and straight legged. A goat that is balanced, pretty, and holds his head up, is the first one you notice when you walk in the pen.

Growth Potential

The ability of an animal to grow rapidly is very important. Generally, the larger framed goats, as indicated by a long head, neck, cannon-bone, and body, will grow faster, be larger, and more competitive in the show ring.

NUTRITION

A good feeding program is one which uses all of the current information on nutritional requirements, yet allows the feeder to make judgments on when changes should be made as to the amounts to feed. Since most goats do not deposit external fat as quickly as other species of livestock, a self-feeding program can be used effectively. However, there are some goats that will become too fat during the feeding period. These goats need to be hand fed twice a day to control the amount of feed they consume.

Nutrients. There are five basic nutrients that are required by all livestock. They are water, protein, energy, minerals, and vitamins.

Water. Water is one of the most critical nutrients in a feeding program as it regulates the amount of feed a goat will consume. Clean, fresh water is necessary on a daily basis. Water is an important component of the body as lean tissue consists of nearly 70% water and all body fluids depend on water from the system. Reduced water intake can aid feeders at certain periods during the program to reduce feed intake and reduce the size of the rumen.

Protein. The primary constituent of the animal body is protein. Dietary protein serves to maintain or replace protein in body tissues, proves for carriers of other nutrients, and is a major component of various products such as meat, milk, and fiber. Protein requirements for goats varies according to their size, age, and maturity. Young, fast-growing goats need higher protein diets (18 % - 22%) to allow them to grow and develop their muscle potential. Rations which contain 16 - 18% protein are useful during many phases of the club goat feeding program, but rations lower than 16% tend to lead to fat deposition too quickly and should be avoided. Feeders

need to remember that goats have a daily requirement for protein. If more protein is fed than the goat requires, the excess is used for energy. Using protein as an energy source is very expensive, but much better than diets that are deficient in protein. During periods when total feed intake is greatly reduced, protein supplementation with a high quality topdress may be necessary to provide the adequate daily requirements for your goat.

Energy. The most common limiting nutrient in goat rations is energy. Inadequate energy intake will result in a slowing of growth and loss of weight. An adequate supply of energy is necessary for efficient utilization of nutrients. Grain and protein supplements are high in energy. However, in goat rations, too much energy intake can be just as detrimental as not enough. Monitoring the body condition of your goat will assure proper energy levels are being fed.

Minerals. The minerals of major concern in a goat rations are salt, calcium, and phosphorous. Calcium and phosphorous are necessary for proper growth and development. They are of concern if the ratio or proportion of these two minerals in the ration become out of balance. The ratio in the ration should be at least two parts calcium to one part phosphorous. Rations which contain high levels of phosphorous in relation to calcium may cause urinary calculi. The addition of ammonium chloride at the rate of 10 - 15 pounds per ton of feed will help prevent urinary calculi. Roughages are generally high in calcium and low in phosphorous. Grains are generally low in calcium and intermediate in phosphorous. Most protein supplements are high in phosphorous and intermediate in calcium. Check with your feed dealer if you have questions about mineral levels in your feed.

Vitamins. Vitamins are essential for proper body function and are required by goats in very small amounts. Of all vitamins, only vitamin A is likely to ever be deficient. If goats are receiving a high quality show ration, then most vitamin levels should not be a problem. It is a good practice to supplement your goats with B complex from time to time to keep them feeling and eating good.

HEALTH

A healthy goat is important to the success of a club goat project. Sick goats are slow growing and never reach their genetic potential. The key to a healthy goat is the development of a preventative health program. Goats that are purchased for a club goat project should have been on some type of health program and have had a variety of vaccinations. These treatments would include:

Enterotoxemia or Overeating Disease

A major cause of death in club goats is from enterotoxemia or overeating disease. Enterotoxemia generally results in death and seldom exhibits symptoms. This disease is caused by a clostridial organism which is normally present in the intestine of most goats. Goats which have their feeding schedule abruptly changed or consume large amounts of grain are the most subject to enterotoxemia. There are two types of enterotoxemia--type C and type D. Most often type D causes the disease. There are vaccines available for type D and for combination of the type C and D. All club goats should be vaccinated with the combination (C and D) vaccine. At least two booster vaccinations are recommended following the first vaccination. The first vaccination should be given immediately after purchase or just prior to purchase by the breeder. A good vaccination program should eliminate losses from overeating.

Internal Parasites

Internal parasites are a continuous problem in club goats. Newly purchased goats should be drenched immediately for internal parasites and a second drenching should follow about three weeks later. There are not many drenches approved for internal parasites in goats. Local veterinarians have the best information on what drench will be most effective in your area. Internal parasites build up a resistance to a drench if it is used over a long period of time. Rotating dewormers may be effective in helping to eliminate internal parasite problems. Dry fed dewormers work best for follow-up every 30 days after the first deworming.

Urinary Calculi

Urinary calculi is a metabolic disease of male goats and is characterized by the formation of calculi (stones) within the urinary tract. The first sign of calculi is the goats inability to pass urine without great discomfort. The goat will exhibit signs of restlessness, kicking at the belly, stretching and attempting to urinate. The most common cause for calculi formation in wether goats is rations with high phosphorous levels. Grains are high in phosphorous and low in calcium; therefore, high concentrate rations, unless properly balanced, tend to cause urinary calculi. The most successful form of prevention is to provide at least a 2:1 calcium to phosphorous ratio in the total ration. As a preventative measure, adding 10 - 15 pounds of ammonium chloride per ton of feed is very successful. Clean fresh water will increase consumption and help prevent urinary calculi.

Soremouth

Soremouth is a contagious disease which causes the formation of scabs on the lips and around the mouth of the goat. This is a virus that can affect humans, so care should be exercised when handling goats with soremouth. Iodine can be rubbed into lesions aft the scabs are removed and this will help to dry up the area and reduce the infection. There is a vaccine which contains many strains of the organism and will help to prevent goats from having soremouth. As this is a live virus vaccine, extreme caution should be taken when administering the product.

Ringworms

Ringworms have become a serious problem in the club lamb industry. Since most of the club goats are shown in the same barns and show rings, it is highly likely that ringworm will become a problem. Ringworms are very contagious and can be transmitted from goat to goat to human to goat, or from contaminated equipment to goat. Since ringworms are generally brought back from a show, a good preventative program is a must. The following products have been used with variable results:

Fulvicin powder given as a bolus or used as a top dress.

Sannox II 10% solution used to spray goats, equipment, and premises

Captan 3 teaspoons/gallon of water, used to spray goats, equipment, and premises

Novasan 3 ounces/gallon of water, used to spray goats, equipment, and premises

Chlorox 10% solution used to spray goats, equipment, and premises

Pinkeye

Pinkeye is a contagious disease that is characterized by excessive watering and a clouding over of the pupil. Goats are very susceptible to pinkeye, especially after they have been transported and moved to a new location. Dry, dusty pens and constant exposure to sunlight can be contributing factors. There are several medications on the market for pinkeye. If improvement is not seen within a few days after treatment, contact your local veterinarian.

Hoof Trimming

When goats stay in small pens with no rocks their hooves grow long and need to be trimmed. Hooves should be trimmed about every six weeks. Always trim hooves one or two weeks before a show in case you accidentally cut into the quick and temporarily lame the goat. This will allow the goat time to get well before the show. If foot rot becomes a problem, it can be treated by placing your goats foot in a zinc sulfate foot bath (10% solution).

Dehorning or Tipping

Some shows demand that your club goat be dehorned in order to be eligible to show. If you plan to dehorn it is preferred to "disbud" goats at 10 - 14 days of age. The older the goat is and the larger the horn, the more stressful it will be on you goat. Other shows simply imply that the goats horns be tipped in order to be eligible to show. This can be easily done and without causing much stress to your goat. However, do not wait until the week before the show to tip your goats horns. The horns should be tipped 4 - 6 weeks prior to the show to allow the horns to heal properly. The main reason these rules are in place is for the safety of the exhibitor.

MANAGEMENT AND FEEDING

In feeding goats you have a choice of feeding a specifically prepared ration, mixing your own, or feeding a ration that has been mixed by the local feed store. Since goats are picky eaters a pelleted ration may be preferred over a textured or loose ration. The most important thing to remember is that there is no such thing as a "magic" ration. Find a balanced ration, learn how to feed it, and learn how your goats respond to it.

When goats are purchased it is essential that they be treated for internal parasites and overeating disease. Many goats will not know how to eat the feed you have purchased. These goats should be started on good, leafy alfalfa hay that is top dressed with the purchased feed. After 3 or 4 days you can slowly change these goats to the ration that you have chosen to feed in your program by decreasing the hay. Hay can be fed during the first part of the feeding program, but should be eliminated at the later stages to prevent goats from getting a large stomach.

Most club goats can be self fed for the entire feeding period. However, some goats will become fat and need to be hand fed. Fat deposition must be closely monitored throughout the feeding program. The feeding schedule can be adjusted to modify gain and body composition, but the feeder must continually watch the goats and check their progress so changes can be made. Rations which are not producing enough finish, or goats that are not putting on enough finish, can be bolstered by the addition of high energy feed, such as corn, during the late stages of the feeding program. Remember, never make abrupt changes in your feeding program. Gradual changes are more desirable so that your goat will stay on feed and continue to develop.

The feeding program for your club goats will dictate how they develop and mature. A feeding program cannot make up for a lack of superior genetics, but will allow your goats to reach their genetic potential. Feeding is a daily responsibility and one which can be continually changed to maximize your results. To best monitor your results, goats should be weighed on a regular basis. Know whether your goats are gaining or losing and how much.

Exercising your goats can be very beneficial to your success in the show ring. Goats are very active animals; and, if given enough room, will exercise themselves. Having objects in your pen for your goats to jump and play on (i.e. big rocks, wooden spools, etc.) will provide your goat with an excellent opportunity to exercise themselves. Goats that have been exercised will handle harder and firmer, which will give you an advantage in the show ring since most judges do not want the exhibitors to brace their goats.

FITTING

Many major shows have a shearing rule for club goats. However, there are some differences in the hair length that is allowable at the time of show. Therefore, it is very important to read the show rules prior to clipping your goat for a particular show.

Washing your goat is not always necessary, but it can be beneficial. If washing is done, use a mild soap sparingly, rinse the animal thoroughly, and dry the goat completely. Brushing with a stiff brush on a regular basis is usually all that is needed on clean goats. The brushing action removes all of the dead hair and dirt on the goat.

Once the goat is clean it is time to shear your goat. Shearing must be done to match show rules, and should be done a week to ten days prior to the show to allow clipper tracks to even out and the pink skin to become less apparent. A pair of electric clippers equipped with either a 20 or 23 tooth comb and 4 point cutter should be used. There are many different combs and cutters available; however, it is felt that the equipment mentioned in this guide provides a smoother more attractive goat. While shearing, the clippers should run parallel to the length of the body rather than making vertical motions. Hair below the knees and hocks should not be shorn, and the hair on the end of the tail should be bobbed. Small animal clippers may be needed to clip closely around the eyes, ears, pasterns, or delicate areas on the goat.

If you are shearing in the colder winter months, you should cover your goat with a lamb sock or blanket immediately after shearing. A clean, well-bedded pen should be provided for the goat to keep him clean and dry.

SHOWING

Like any other activity, some people are natural showmen. All exhibitors can learn techniques and improve their showmanship skills. Showmanship can be broken down into two parts: pre-show preparation and show ring.

Pre-Show Preparation

The amount of time required to train a goat to show depends on several things: the goat, physical size and experience, and the intensity of training. Some goats are easy to gentle and learn how to show, while other goats are more difficult and nearly impossible to train. However, most goats

can be trained provided enough time and effort is spent. Unlike lambs, goats are shown with a halter or some type of collar. It is the authors opinions that a collar works best.

Halter breaking is an excellent way to start the gentling process, especially if an exhibitor has several goats. Collars or inexpensive rope halters can be made or purchased from certain feed and livestock supply stores. Goats should be caught, haltered or collared and tied to the fence. If using a collar, you can snap the goat's collar to the fence. Care should be taken not to tie them where they can hurt themselves. ***It is very important that tied goats not be left unattended.*** After the goat begins to gentle down, the exhibitor can start teaching him to lead. Use the collar or halter to keep the goats head up while you teach him to lead. It is important that you have someone to assist you by pushing the goat from behind whenever he stops. Teach the goat to lead with its front shoulder even with your leg. The goats head should be out in front of your body.

The next step in the training process is for the exhibitor to lead the goat and properly set him up. Set the front legs up first, then place the hind legs, keeping the body and neck straight and the head in a high, proud position by using the halter or collar. The exhibitor should remain standing at all times. Do not squat or kneel.

After the training is complete, the exhibitor may wish to practice showing his or her goat. The exhibitor can set up his or her goat and show him while someone else handles the goat, making sure the goat looks good. If the goat responds properly, return him to the pen and do not overwork him. Exhibitors need to realize that they may have only 15-20 seconds to actually show their goat in a show. If the goat does not show properly when the judge handles him, you may get overlooked.

Show Ring

Assuming that prior planning, selecting, feeding, fitting, training, and grooming have been done, showing is one of the most important ingredients. Showmanship can't be emphasized too strongly! It is often the difference between winning and losing.

The exhibitor should be mentally and physically ready to enter the show ring for competition. By completing the pre-show activities exhibitors should have confidence that they can do an effective job showing their goat. They should be neat in appearance but not overdressed. Exhibitors should not wear hats or caps in the show ring.

Before the show begins, exhibitors should go look at the show ring and become familiar with it. Once the judge begins, if the exhibitor is not in the first class, he or she should watch the judge and see how he works the goats in the show ring.

When the appropriate class is called, exhibitors should take their goats to the show ring. They should be courteous to fellow exhibitors at all times. If the ring stewards do not line up the goats, the exhibitors should find a good place where their goats will look their 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 with alert. Always show with both hands. Do not put your free hand behind your back, use your free hand to keep the goat's head and body straight.

A good showmen must be alert and know where the judge is at all times. Always remember to

keep your eye on the judge! Remain calm and concentrate on showing. In large classes it may be 10 minutes or longer before the judge handles your goat so you must be patient and let your goat relax.

Set your goat up and be ready before the judge gets to you. Be careful not to cover your goat up with your body and block the judge's view. ***Always keep your goat between you and the judge.***

After the judge handles your goat, he will usually step back and look at him. Be sure to keep his head up and body, neck, and head in a straight line. Keep one eye on the judge and one eye on the goat. It is your responsibility to watch the judge and not miss a decision.

If your goat does not get pulled for class placing the first time, don't give up. Continue to keep him set up, remain alert, and keep one eye on the judge. If your goat gets pulled, circle him out of the line and follow the directions of the ring steward, making sure to continue to keep an eye on the judge. Move your goat with style and at a steady, moderate pace.

Remember to keep showing at all times. The class is not over until the ribbons are passed out. Always be a good sport and shake the hand of the class winner. Hopefully it will be you. Be a humble winner and a graceful loser.

Thanks to excerpts from Texas Club Goat Association for help with these guidelines and recommendations.

This article was written by Jerry Woodard, a livestock feeding specialist for Premier Feeds.