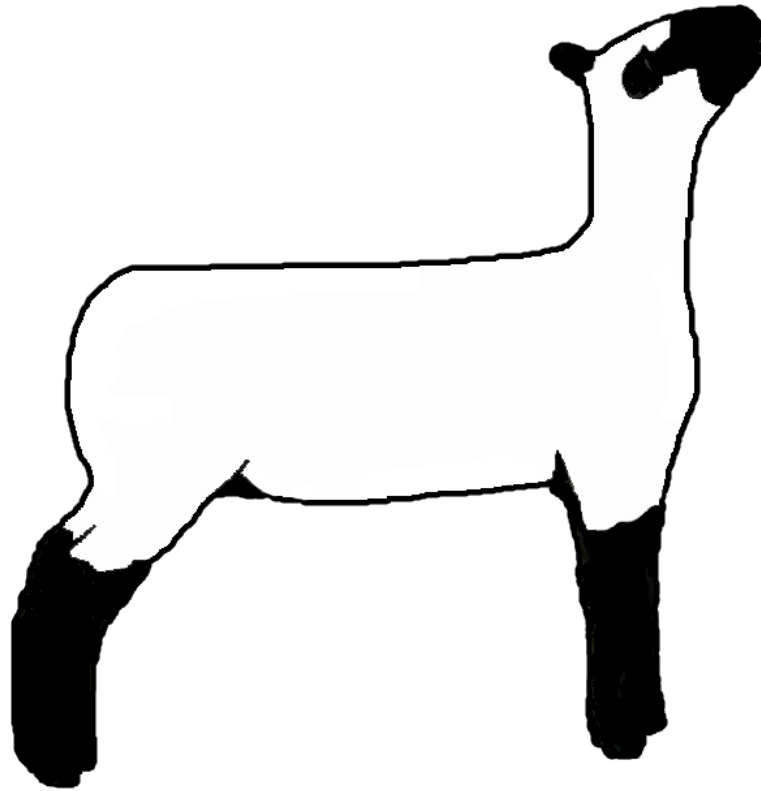


K-State Sheep Project Guide



**Kansas State University
Youth Livestock Program**

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Other Useful Information:

- Market Lamb Showmanship materials can be found at
<http://www.ksre.ksu.edu/library/lvstk2/mf2828.pdf>

Contributions

Thank you to these individuals for helping put this information together.

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Selecting Your Youth Sheep Project

When participating in a junior livestock program it is good practice to develop a relationship with a breeder. After establishing a relationship, they can serve you better with questions you have, managerial advice, or any problems that might arise throughout the duration of your project.

Select a Breed

Generally, the larger breeds at livestock shows are black faced, Hampshire, Suffolk, and Crossbred. The white faced breeds: Southdown, Dorset and Speckle are more prominent in other areas of the United States; however, in the Midwest, the numbers seem to accumulate in the black faced breeds. If you are starting a sheep project for the first time with a young, inexperienced showman, starting out in the smaller breed may prove beneficial; however, is not a rule.

Determine Your Goals

Before entering any competition, one must establish goals they wish to accomplish with their project. When you have something to shoot for, your work ethic will reflect it. You may want to win your county fair, the state fair, or continue on nationally. Whichever level you plan to achieve, design your program to fit that achievement.

Visiting Breeders and Seeing Sheep

In Kansas, state livestock show season is in the fall, therefore a lamb born between December and March of the same year would be the appropriate age to buy. Considering the competitive market weight of 135-145 pounds, it's common to select a lamb born in January. If you buy a December born lamb, you may have to hold them slightly and February born lambs may require a push to get them to a competitive weight.

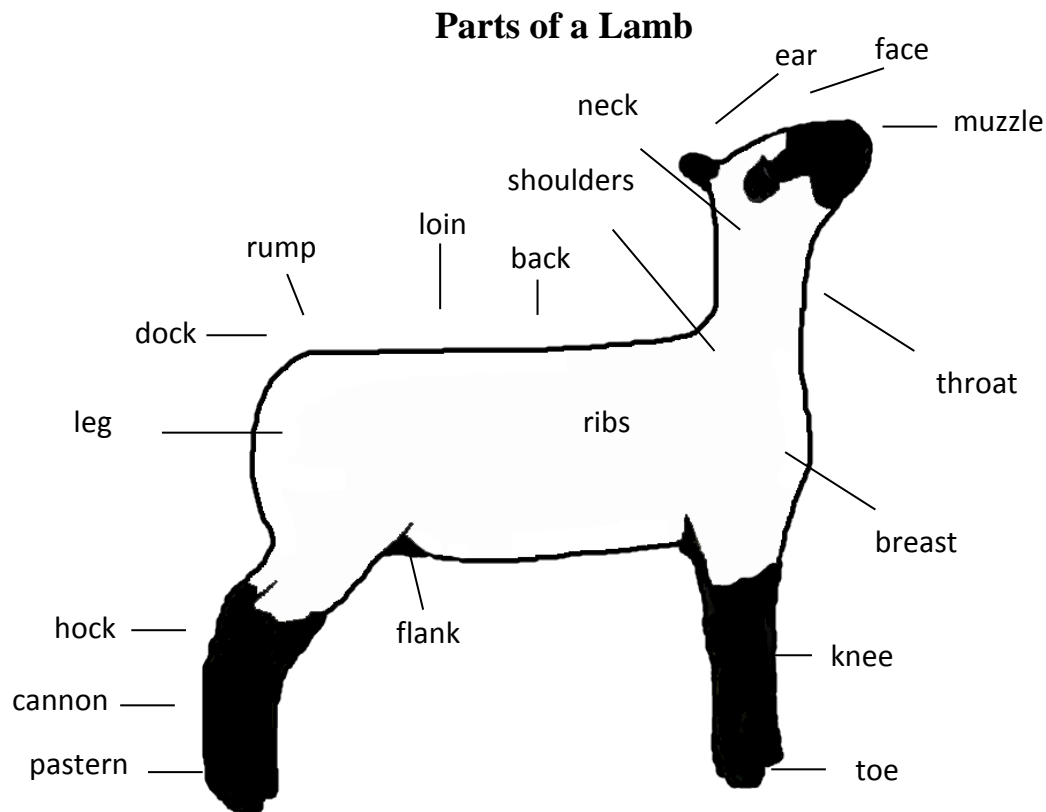
It is good practice to visit breeders and see lambs as they are born from December through mid-February. New lambs aren't going to be fat and developed so you have to study their skeleton at 10 to 20 days of age. Bone doesn't change with age, so select a lamb that is long and neat fronted, wide chested, and wide and level hiped. Power and muscle can come later with correct feeding and exercise. You should pay attention to birth dates and justify whether the lamb is the size he should be at his age, anything other than proportional suggests accelerated growth or one that is too quick patterned. The most important priority in selecting babies is to study their pedigree. A lamb will more often than not take after his mother, fathers will enhance traits that are already there, but the dam side would be the best representative of what your lamb will look like at maturity.

Selection Criteria

Much like other species, market sheep should represent the current industry trends. Lambs should be big footed, heavy boned and offer an abundance of base width. Lambs should reflect this same advantage over their top with muscle shape and dimension over their rack, loin and hip. Muscle shape should be prominent on both side of their spine with depth and a three-

dimension feel to their loin edge. When standing behind them they should be wide in their pins and offer a deep twist with flair and curvature to their stifle.

Along with muscle shape, their skeleton should function with flex and comfort in their joints. When traveling, lambs should take long strides, accurately placing all four feet forward correctly.



Fat range is widely accepted in the industry at .2-.3 inches of back fat. Lambs should handle over their rib and top like a football, versus a tabletop. Lambs that handle too hard are typically thin finished or stale. Determine when your show is and feed accordingly to achieve the ideal market weight. The ideal market weight for a lamb to reach his maximum endpoint at roughly 5-6 months of age would be 135-145 pounds with .2-.3 inches of back fat.

Breeding Sheep

Speaking from a breeding sheep standpoint, all of the above should be taken into consideration; however, more emphasis should be placed in their skeleton. We like our sheep to be thick and heavy muscled; however, in breeding sheep we need to pay more attention to their skeletal design. Females should represent a maternal look, being wide and deep in her rib cage, indicating internal dimension during pregnancy. In addition, they should be wide hipped and present width in their pins for easier passage during the birthing process.

Breeds of Sheep

Cheviot

- Developed in Scotland
- Highly adaptable to a variety of climates
- White-faced with bare heads and legs
- Moderately prolific



Photo courtesy of American Cheviot Sheep Society.

Columbia

- Developed in the United States from a Lincoln ram and Rambouillet ewe
- Wool producing
- Large, white-faced, polled, has wool on its legs



Photo courtesy of K-State Sheep and Meat Goat Unit.

Corriedale

- Developed in New Zealand from a Lincoln ram and Leicester/Merino ewe cross
- Prolific and maternal
- White-faced
- Medium-wool fleece with good staple length

Dorset

- Originated in Southern England
- Can be polled, scurred, or horned
- Known for breeding out of season, heavy milking, and producing more than one lamb crop per year



Photo courtesy of Riverwood Farms.

Finn Sheep

- Developed in Finland
- Strong maternal instinct and very prolific
- Produce two to four lambs each lambing

Hampshire

- Developed in Southern England
- Large with wool caps, black faces and medium wool fleece
- Good milking, growth and carcass cutability



Photo courtesy of K-State Sheep and Meat Goat Unit

Merino

- Basis for all wool breeds
- White-faced with wool on their head and legs

Montadale

- Originated in the United States from a Cheviot and Columbia cross
- White-faced, bareheaded and bare-legged
- Polled, hardy and prolific

Oxford

- Cross between a Hampshire and Cotswold
- Dark brown to grey face and polled
- Wool cap, wool on ears and legs
- Good milkers, prolific and fast growth rate



Photo courtesy of Winning Ways Farm.

Polypay

- Developed in the United States at the Sheep Experiment Station in Dubois, Idaho
- Targhee/Dorset Ram and Rambouillet/Finn Sheep ewe cross
- Medium-sized, white-faced, prolific and breeds out of season

Rambouillet

- Developed in France
- Breeds out of season and has fine wool in fiber diameter
- Large, white-faced, with wool on the head and legs
- Can be polled or horned



Photo courtesy of K-State Sheep and Meat Goat Unit.

Shropshire

- Originated in England
- Dark-faced, polled, with wool on it's head and face
- Prolific, early maturing, milks well, heavy muscled



Photo courtesy of Buckham Farms.

Southdown

- Oldest breed originating from England
- Small to medium sized, produces meaty carcasses
- Polled, with grey to mouse-brown face and wool on the legs.



Photo courtesy of K-State Sheep and Meat Goat Unit.

Suffolk

- Polled, with black head and legs
- Large numbers in the United States
- Known for meatiness and high carcass yield



Photo courtesy of Lost River Livestock.

Targhee

- Cross of Rambouillet/Columbia and Rambouillet/Corriedale
- Large-sized, white-faced with wool on the legs



Photo courtesy of U.S. Targhee Sheep Association.

Facilities and General Care

Facilities for the youth sheep project should be like other species, functional. It is much easier to get by with less of a facility for sheep because they are much smaller animals; however, they need a facility that is functional and safe.

You should think about the number of animals you will be housing, keeping in mind you may have more family members showing in the next 5-10 years. Also, all livestock need shelter from the heat and cold, access to clean, fresh water, a place to exercise, washing area and an area for clipping and vaccinating. You may also want to have an area to turn the animals out in during the night where they have more space. Some of these spaces can be double duty but these should all be things to think about before starting your youth sheep project.

Many times, other activities get you behind in your chores so you would need electricity for lighting early in the morning and at night. In addition, having adequate lighting is necessary for proper shearing. You may also need to use fans during the heat of the summer.

Storing feed, hay, and show equipment should be done in an area free of harsh weather. You don't want your equipment to get grungy and you need to keep your feed and hay dry.

General care often involves frequent observation of your animals for health problems, interaction with other animals, and to make sure they are eating and drinking. Observing your animal while they are eating, resting and exercising is important for positive results.

When you bring your animal home for the first time, they will be scared, stressed and uneasy. If possible, obtain a small amount of the ration the sheep were on to start feeding. Gradually change the ration to the one you will feed. Don't start halter breaking until the lambs have adapted to their new environment.

In terms of management, it's never a good idea to feed one lamb alone. Lambs need social interaction with other lambs, and will often become nervous alone, and may lose their appetite. Some juniors will purchase one top quality lamb, and then buy or raise a less expensive "buddy" to feed along with the other lamb. It's best if the "buddy" goes along to the shows, as familiar animals will help minimize the stress of unfamiliar surroundings.

Contact and maintain a relationship with your local veterinarian once you begin in the youth sheep project. It is inevitable that you will have to call upon a veterinarian at some point and it is best to make that relationship before you ever need anything.

If lambs are kept in an area with soft soil, you may need to trim their hooves. Having areas in their pens that have small rocks and/or limestone will help decrease the need for trimming hooves as often. If you have never done this before, ask around and you will find someone that can show you how to properly trim hooves.

Lastly, it is important to get your animal out and go to a show. Getting them used to the environment will lessen the risk of the animal getting stressed or sick at your final destination. This also helps the exhibitor get used to working with their animal in an environment other than the place they are most comfortable. You will also get to meet new friends that enjoy the same industry you have become a part of.

Dr. Dan Moser said it best: Perhaps the biggest key to success in the project is building relationships with those that can provide advice and support. Fellow exhibitors are usually more than willing to help those that are new to the project, and breeders and extension staff can provide information and guidance. If you are planning to build facilities, take the time to visit other farms to get ideas. Ask lots of questions, and you'll be well on your way to a successful project.

Health

We have outlined common health issues, what they are caused by, what to watch for, and when to call the veterinarian. Remember to always consult your extension agent or agriculture science teacher to determine if a veterinarian should be called before administering any medications.

Health Problem	Causes	What to Watch For	When to Call the Vet
Ringworm	Fungus	Loss of wool in small, circular areas	As soon as it is noticed if you are planning on attending a show in the next few weeks. The sooner appropriate treatment begins, the more likely you will be able to show the animal.
Foot Rot	Wet conditions, untrimmed feet	Bad odor from hoof	If the condition does not resolve with treatment in 3 days. This can very quickly become an infection of deeper structures that can be costly and even irreversible.
Scours	Changing feeds or stress	Diarrhea	As soon as possible to intervene with appropriate fluid therapy. Scours in young animals are often caused by a virus, and antibiotics are not helpful. An appropriate diagnosis is necessary for good response and control of spread.
Coccidiosis	Parasite	Scours that don't go away, blood in stool, lamb is eating but loses weight	As soon as possible to intervene with appropriate fluid therapy. Feeder age animals may be dealing with Coccidiosis, which is also not responsive to antibiotics. An appropriate diagnosis is necessary for good response and control of spread.
Urinary Calculi	Rations high in phosphorus	Straining to pass urine, kicking at belly	Immediately upon noticing any castrated male that is not acting right. The signs of a blocked animal are often very subtle and if left unaddressed can result in a ruptured bladder or urethra, minimizing options for that animal.

Exercising and Training

Exercise

You must exercise your lambs for both structural soundness and to define muscle. The use of a dog is helpful as long as the dog is obedient and well-trained. Create a circular or oval shaped track or a square track with rounded corners – this prevents sheep from stopping in corners. The track should be 5-7 feet in width and at least 4 feet high and lined with sand or fresh dirt.

When building a track it's imperative you construct it with no sharp edges, covering the corners with blankets or tarps. If you had access to a track dog, typically adolescent ones are more aggressive and must be muzzled. Also, the dog is usually placed on the inside of the oval and not directly in the track with nothing between the dog and the sheep. If the lambs decide to change direction you risk injury to your lambs as well as your dog. Typically, families run their lambs themselves around the track. Damage to your lamb or lamb's hide will not be very well received in the show ring, so be careful while tracking. If it is nice weather, it is very good for lambs to be turned out in a dry lot (with no access to free grass) to run off steam in the evenings.

When exercising, it is best to do early in the morning or late in the evenings at the coolest part of the day. Start slow, working lambs for 5 or 10 minutes working the lambs up to 20 minutes. When lambs nostrils are flaring, but not panting they have had a good workout. This usually occurs at 20 minutes or 4-5 laps, depending on how fast they run. One common mistake is that some exhibitors have not worked their lambs in both directions, make sure you even distribute work among all parts of the lamb. If they only run the same direction every time, your lambs muscle will typically look lopsided. Exercise should take place the last 45 days prior to show day, anything earlier would not allow the lamb to achieve the correct fat content or growth and later would have no effect. The idea is to get him handling just a fraction soft in his fat deposition, then utilize the exercise to burn it off. At this point they should be receiving their finishing diet with a top dress.

Training

When your lamb first arrives at its new home it will be very stressed and scared, this is the time when you should calmly gain your animals trust. In order to gain its trust and gentle the lamb you must interact with the lamb. By getting in the pen, catching, haltering and rubbing on the animal it will slowly begin to trust you more and more. Some animals may take more time to acclimate to a new surrounding and to have people working with them on a daily basis. Once you have halter broke your lamb and it is gentle, you should start teaching your animal to set up for the show ring.

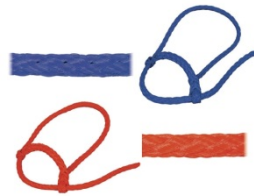
Training is the single most effective key to success. There is no maximum amount of time to train your lamb but successful showmen would tell you they typically spend at the very least an hour a day practicing with their project. Sheep learn by repetition, constantly walking, setting, showing and bracing will train your lamb to show so that in the ring they know exactly what to do and there will be no mistakes. Judges are always impressed with a showman that does little work to get their lamb presented. It's important to work with your lambs individually, where they can't see or hear your other lambs. This allows them to gain your trust further and become more independent, ultimately this pays off in the ring with your lamb being calm and used to the intimidating atmosphere. Again, get them in a routine; you should work with them after feeding,

or before exercise. Directly before feeding or after exercise would be the least desirable times. Constantly working showmanship on your lamb will ensure you the most success in the end.

Training your animal to brace takes time and is hard work. In addition, some animals naturally brace more than others. Those that you have a hard time teaching may be taught easier by backing your animal off a small edge or into a wall. This will give them the idea that they are going to fall and will automatically push back against you.

What's in your showbox?

- Clippers
- Clipper Blades
- Clipper Oil
- Blow Dryer
- Water Hose
- Soap (liquid dish soap works well)
- Towels
- Halters
- Blankets and/or Socks
- Drench Gun
- Muzzles
- Safety Pins
- Hoof Trimmers
- Brushes
- Feeders
- Buckets
- Feed
- Hay
- Zip Ties
- Wire
- Pliers
- Extension Cords
- Fan(s)
- Blocking Table
- Notepad/Pen/Pencils
- Wool card
- Water Bucket



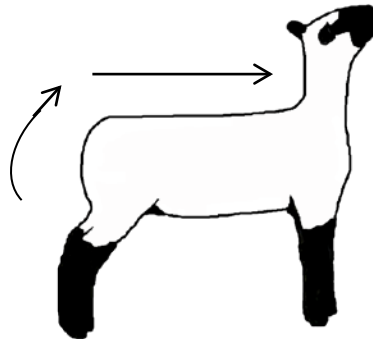
Photos courtesy of Sullivan Supply Company.

Shearing and Fitting

Shearing your lamb for the show normally happens at home because most state livestock shows do not allow you to clip at their facilities. Read your shows rule book before you begin shearing as most shows have restrictions on how long wool should be and your animal can be disqualified if not within the specified range.

Shearing

1. Wash and shear your lamb as close to show day as possible.
2. Wash prior to shearing, removing all of the soap. If a lamb is in long fleece, washing is not necessary as the fleece keeps dirt and debris from getting to the skin and it will not affect the clipper blades.
 - Liquid dish soap is a good, mild soap that works well with wool.
3. Use a blow dryer or towel to dry your lamb; however, you want the lamb to be damp for shearing.
4. Run the clippers parallel to the length of the body and up and around the hind legs.
 - We recommend Lister's clippers with a Fine Tooth blade to achieve a smooth, eye-appealing look.



5. Be sure to leave the wool below the knees and hocks, you can card and blend this leg wool to make for a more eye-appealing look
6. Immediately after shearing, cover each lamb with a lamb sock or blanket and put them in a clean well-bedded pen.

Fitting

Here are a few tips to remember when getting your sheep ready on show day.

- Wash and dry your animal, card out the leg wool and blanket the lamb to let them rest before the show.
- Pay attention to your shows rules as some shows do not allow any product to be on an animal and could be cause for disqualification.
- If you are allowed to use paint, do not use it excessively.

Nutritional Basics for Market Lambs

Dr. Brian R. Faris
Extension Sheep & Meat Goat Specialist
Kansas State University Department of Animal Sciences & Industry

Feeding an animal to meet its daily needs probably seems like a rather simple concept with the availability of numerous commercial feeds. However, a 4-H or FFA lamb project could be compared to training athletes. Lambs should be treated as individuals in regards to diet and exercise.

Elaborate facilities and complicated feeding/exercise programs using a variety of feeds, supplements, and exercise equipment are not required to have a successful project. If you are aware of the specific needs of the animal and how to address those needs, it may be done rather easily. The first step is learning the basics.



Water

The most important nutrient for any animal is clean, fresh water. Water makes up approximately 70% of muscle tissue. For an animal to perform at its peak, it must have access to a quality water source. Exhibitors should consider themselves when thinking about water for their animals. If water does not appear clean enough for a human to drink, the water container needs to be cleaned. Be aware of water temperature. Most lamb projects begin in April and continue through the fall and winter. The lamb is experiencing a critical growing period through the summer, and the summer also brings the highest temperatures. In order to encourage maximum water consumption, keep water shaded and use light colored buckets (draws minimal heat from the sun). If automatic waterers are used, choose a small container with high water exchange rather than a large container with minimal water exchange. This will help keep water fresh and cool. Always strive to keep animals hydrated at home and stock shows.

Enterotoxemia or “Overeating Disease”

Granted the following is a more health related statement, it is directly related to nutritional performance of lambs. When lambs are purchased, ask the seller how many overeating or enterotoxemia vaccinations have been given to the lamb. Lambs should have at least three vaccinations within the first four months of their life. Depending on when the lamb is purchased, the new owner may need to give additional vaccination boosters. In most cases, lambs will be accustomed to grain and have had at least a couple of vaccinations at purchase. If they have not received the appropriate vaccinations and are not started on feed, start your lambs on forage and gradually increase their exposure and access to grain. This adjustment period will allow the lamb’s stomach to grow accustomed to the new diet and reduce the risk of creating an upset digestive system and possibly death.

Feeding Lambs

Numerous feeds are available on the market. Feeds can be pelleted or a textured grain blend. Animals on self-feeders should be fed pelleted feeds to reduce sorting, but hand-fed animals can be fed either type, and most prefer the textured blend for this purpose. Textured feeds allow the flexibility of “wet” feeding (mixing water with feed) without creating an unpalatable mash created by mixing water with pellets. Textured feeds should be kept fresh. Only purchase the amount of feed lambs can consume in two weeks. Textured feeds have a high moisture content and can easily mold. Do not feed molded feed to lambs.

Nutritional needs by the lamb will vary from the time it is purchased to the time the animal is shown. Lambs purchased weighing less than 75 to 80 pounds still require a great deal of muscle and skeletal growth and should be offered as much as they can eat (ad libitum) of a 17-20% crude protein feed. When reading a feed tag, the crude fiber gives an indication of energy content in the feed. A high fiber feed (ex: 15%) is much lower in energy than a lower fiber feed (ex: 8%). Younger lambs should receive a higher crude fiber diet to maximize growth. Crude fat is also a measure of energy. Fat is nutrient dense and can be fed at 2 to 4% of the diet. If the diet exceeds 5% fat, consumption may be reduced. You can expect these lighter weighing lambs to gain 0.5 to 1.0 pound per day. As they grow closer to maturity, average daily gain should decrease.

Show Lamb Sample Feed Tag

MEDICATED

For the prevention of coccidiosis caused by *Eimeria ovina*, *E. crandallis*, *E. ovinoidalis*, (*E. ninakohlyakimovae*), *E. parva* and *E. italicata* in sheep maintained in confinement.

ACTIVE DRUG INGREDIENT

Cocciostatat.....XX g/ton

GUARANTEED ANALYSIS

Crude Protein, Min 18.0%
(This includes not more than 1.0% equivalent crude protein from non-protein nitrogen)

Crude Fat, Min 3.0%

Crude Fiber, Max 12.0%

Calcium (Ca), Min 0.7% Max 1.2%

Phosphorus (P), Min 0.4%

Salt (NaCl), Min 0.4% Max 1.0%

Selenium (Se), Min 0.3 ppm

Vitamin A, Min 8,000 IU per pound

INGREDIENTS

Grain Products, Processed Grain By-Products, Plant Protein Products, Forage Products, Molasses Products, Soybean Oil, Dried Whey, Calcium Carbonate, Salt, Ammonium Chloride, Vitamin A Acetate, Thiamine, Cobalt Carbonate, Zinc Oxide.

FEEDING DIRECTIONS

Feed continuously as the sole ration at the rate of 1 to 4 lb to provide not less than XX mg or more than XX mg of cocciostat per head per day depending on body weight.

Manufactured By:
Feed Company and Mill, Inc.
 PO Box 1; Socrates, Plato 23456

As most medium to large framed lambs begin weighing 130 pounds or more they will start to mature. Reduce the protein and increase the energy in feed to maintain the appropriate fat or condition level of the lamb. Lambs only need approximately 2% of the body weight in feed to maintain themselves. Some exhibitors will switch feeds at this time. A feed with 10 to 12% crude protein and 8% crude fiber may be used. If you are going to change feeds, then do so over 3 to 5 days.

Weighing lambs is a critical part of the 4-H/ FFA lamb project. If possible, weigh lambs once/week to monitor growth. Charting growth allows you to make informed feeding decisions.

Feed lambs a “medicated” feed containing a cocciostat to prevent coccidiosis which is characterized by severe diarrhea, rapid weight loss and even death. Ammonium chloride can also be fed to help prevent urolithiasis or kidney stones.

Exercising Lambs

Only as the lamb begins to mature should you consider an exercise program. Starting a lamb on an exercise program too early can be more detrimental than advantageous to the animal’s future.

Exercise programs can be very elaborate or quite simple. Some people choose a “track” and dog to exercise lambs the desired distance. Others use a treadmill to exercise their animals. Exercise helps manage fat or condition on the animal along with muscle shape and tone. Walking lambs is better than no exercise, but it will not achieve the same results of a track or treadmill.

This is a basic overview of what is involved in feeding a market lamb project. Generally, feeding 2 to 4 pounds of feed per lamb, depending on weight and condition, will provide the necessary nutrients for a lamb. There is no perfect feed or feed program. You have to learn how to evaluate lambs and make dietary changes to gain the expected results. Good luck.

How to Collect DNA Hair Samples



3720 GATTIS SCHOOL ROAD • SUITE 800, No. 217 • ROUND ROCK, TX 78664
PHONE 512-567-1977 • WWW.WEDNAID.COM

SHEEP & GOAT HAIR SAMPLE COLLECTION INSTRUCTIONS

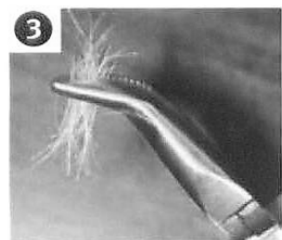


1 Check the ear tag number of the animal, and record it on the hair sample envelope. Clean the sample area to remove dirt or other contaminants.

Use bent nose, long nose or needle nose pliers to collect the sample.



2 Pull a tuft of hair from the leg, just above the toes. Pull the hair directly away from the skin, NOT at an angle. This will allow the root to come out with the hair. Take at least three pulls.



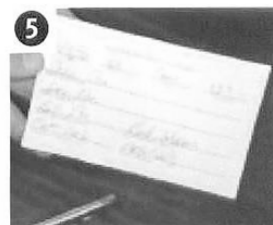
3 Inspect the hairs sample to ensure at least 40 hair follicles or roots. The roots are easy to see in goats (like human hairs with a bulb at the end), but difficult in sheep. In sheep, you may notice a color variation which indicates that the root is intact.

Note: Do NOT cut the hair from the animal. The hair MUST CONTAIN ROOTS for DNA testing. Avoid touching the roots and make sure the hair is dry

Place the sample in the hair sample envelope, and then seal the envelope in the presence of the exhibitor and parent/supervisor. Do not put hairs in a plastic bag.



Fill out the remaining information lines on the envelope, and have the witnesses sign.



REMEMBER: Cleanse hands and pliers between animal samples to ensure that hairs from different animals are not mixed.



SHEEP & GOAT SAMPLE CHECKLIST

- ✓ Select collection area - we suggest above toes
- ✓ Record ear tag number on the envelope
- ✓ Obtain at least 40 hairs with follicles
- ✓ Take at least 3 pulls
- ✓ Inspect for follicles – do not touch follicles
- ✓ Obtain exhibitor signature & seal envelope
- ✓ Clean pliers and hands between animals

Sheep & Goat Instructions.pdf (Rev 05/10)

Notes