

SO YOU WANT TO RAISE A FEW SHEEP What Are The Questions And Where Are The Answers?

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Maybe you have a few acres that are overgrown or that you are tired of mowing. Maybe you want sheep as a novelty or to maintain a minor breed. Maybe you like to eat lamb and are tired of paying more than \$5.00 per pound for a leg of lamb. Maybe you want livestock but do not have the room, equipment or the finances for cattle. Maybe you want to use sheep to teach your child responsibility. Maybe you just like sheep. Regardless of your reason, there are several things to consider before getting sheep. This paper highlights limitations, requirements and uses of sheep. Sources of information are also identified for those who want to raise sheep regardless of the reason.

WHAT ARE THE CHARACTERISTICS OF SHEEP?

Sheep are ruminants, which means they have a multiple-compartment stomach containing microbes that are able to digest forages (grasses, legumes, or shrubs). Sheep can survive solely on forage without grain supplementation, provided there is forage of sufficient quality and quantity. Sheep, like cattle, can also utilize hay, silage and many by-product feeds. Sheep are gregarious, which means they like to be around other sheep and move as a group rather than individuals. This means that having only one sheep may be a disadvantage and you may need to have four or five at a minimum. There are a multitude of breeds of sheep available in the United States. These include sheep that are grown primarily for wool, that are grown primarily for meat production and even sheep without wool. Mature size of sheep ranges from 50 lbs to 500 lbs depending on breed.

Sheep are known as seasonal breeders. This means the female only cycles and accepts the male during times of shortening day length. Cycling usually initiates by the end of August to early in September. If not bred, the ewe will cycle and ovulate every 17 days. Once bred, the gestation length (the time from breeding to lambing) is five months. Ewes that are bred in late August to early September lamb in January and February. There are many breeds capable of breeding year round. To have lambs at other times during the year than just the spring, or to have ewes produce more than one time per year, you may want to consider one of these breeds.

On average, approximately half of the ewes will have twins therefore the average lamb crop will be 1.5 lambs/ewe (150% lamb crop). Breeds differ in their prolificacy.

Lambs suckle the ewe for 2 - 3 months naturally, but can be weaned at one (1) month of age. Lambs are marketed at 90 - 130 lbs at 4 to 8 months of age (depending on breed).

WHAT ARE THE MAJOR LIMITATIONS TO RAISING SHEEP?

There are two natural enemies of sheep: internal parasites and predators. Both can be partially controlled by the intervention of the sheep owner. Severe infestation by internal parasites can cause death in young lambs and even adults and is, therefore, one of the major problems in sheep production worldwide. The sheep owner has several management practices that aid in controlling internal parasite infestation, drugs called anthelmintics can be given to sheep to kill the parasites and practices such as pasture rotation can be utilized. These will be further discussed later.

Predators are the other major enemy of sheep. Predators include coyotes, wolves, mountain lions but most commonly dogs. Unfortunately, (for the sheep owner) often times it is the neighbor's dog that causes the problem. Usually, the dog will maim or kill the sheep for sport and not consume the kill. There are two methods to control predators. One is by excluding the predators with proper fencing and the other is by protecting the sheep with guard animals. Recently, the availability of high voltage or high power fence chargers for electric fencing has improved our ability to keep sheep in, and more importantly, to keep predators out. In addition, several breeds of dogs can be used as guard animals and in fact donkeys [and llamas] are often used as guard animals to protect the sheep.

If the sheep owner can control the parasites and control the predators, sheep will survive.

WHAT ARE THE RESOURCES NEED FOR SHEEP?

Feed/land - To utilize the sheep's natural characteristics of being able to consume pasture, shrubs and browse, perhaps the first thing to evaluate is the area available for grazing. The feed from pasture is the most economical and should be the base of the operation. How much land is available and what the productivity of that land is should be determined. Improved pasture may yield four to five tons per acre per year if properly managed, whereas hilly or tree covered land may average considerably less.

A general rule of thumb to consider in determining the number of sheep that you can have on a given land area is to consider that five or six ewes and their lambs are equivalent to one cow and her calf. Therefore, if land is known to carry one cow per acre then you can safely assume that you can carry five to six ewes and their lambs on the same area. In some parts of the U.S., 10 - 20 acres are required per cow/calf, so considerably fewer sheep can be kept on that area.

While pasture should be the base of the feed resource, other feeds can be utilized to supplement the pasture. Hay can be grown on the farm (but this requires a large investment in equipment) or can be purchased from other producers. If you can plan ahead, hay can be purchased at the time of harvesting directly from the field at a reduced cost. However, if purchased during harvest, a place will be needed to store the hay and you must have the finances to purchase the hay all at one time rather than throughout the year as you need it.

Sheep can also utilize by-product feeds including materials coming from garden, by-products of peanuts, corn, cotton, soybeans and even day-old bread. Feed can also be purchased from feed mills or feed stores. Sheep are capable of eating and readily like most cereal grains including corn, oats, barley and rye. These grains can be fed directly to sheep without processing.

Some feed stores will have available special mixtures made for sheep and goats. Care should be taken not to use feed that is advertised for dairy, beef, swine or poultry use. The reason for this is that these feeds will contain high amounts of copper and are toxic to sheep. Again, care should be taken not to use feeds that are made for other species of animals!

Sheep are generally offered required minerals in the form of a mineral block or as a free choice mix. A mineral mix should be purchased that is formulated for sheep to meet their requirements and prevent copper toxicity.

Buildings and equipment - The building requirements for housing sheep are minimal. Sheep survive outside without a barn as long as there is some shelter from wind and/or inclement weather. Shelter can be in the form of a converted machinery shed, and old garage, an old tobacco barn or a farm building. If sheep are given access to a shelter, they can decide whether to be inside or outside. Putting sheep into a tight, close fitting barn can be very stressful on the animals because of high temperatures and high humidity in the barn. The best shelters are dry, open-sided, and well ventilated. Sheep generally will not utilize the shelter except to get out of very inclement weather or to seek shade. Another time when a shelter may be necessary is

during the lambing season, especially if ewes are lambing during cold, wet or snowy weather. In this case, sheep are often kept inside or are sheared prior to lambing to make the ewe seek shelter so that the lamb will be in a protected area.

Unless you are planning to make hay, the machinery necessary for sheep is minimal. A mower may be used to cut pastures that are overgrown, but with proper pasture management, no mower will be needed. It is advantageous to have an area or pens in a barn or in the open that can be used as a corral to sort and manage animals. Tasks such as weighing lambs, trimming feet, docking tails and treating for internal parasites are facilitated with a corral. These facilities are quite easy to make out of normal building materials or panels. Plans are available from several sources, as noted below.

A set of clippers for shearing [of wool sheep], foot trimmers and equipment for administering anthelmintics will be needed.

Fencing - The fencing may be one of the most important components of a successful sheep operation. A properly designed and constructed fence will keep the sheep in and predators out. Traditionally, woven wire has been used as sheep fence. However, the expense of woven wire is quite high and it is difficult to justify fencing large areas in woven wire fence. The perimeter fence around the entire area where the sheep are going to be contained must be of high quality material. If woven wire is used, posts must be put close enough together so that animals (the sheep and predators) cannot get through.

The most inexpensive and effective fence now utilizes high power electric chargers (~5000 volts). These chargers cost between \$75 and \$250 and can be run from regular 110 current, from a car battery or from the sun. There are solar chargers available for under \$100 that will charge the fence continually during the day, and store a charge in a battery for night use. Spacing of the wire and grounding of the fence is extremely important to provide safety from predators. Most fence manufacturing companies will provide adequate detail on how to construct a sheep fence with their materials. Many have individual instructional video tapes that are available.

Construction of internal cross fences (to divide the pasture within the perimeter) do not need to be as secure or permanent as the perimeter fence. There are several types of portable, temporary fencing material available that are easily moved and can be utilized to cross fence pastures as forage growth changes or as number of animals changes. These types of fences can be easily moved by one person and are very useful in keeping sheep where you want to keep them. Several companies have portable types of fencing appropriate for sheep.

WHAT OTHER THINGS SHOULD I BE CONCERNED ABOUT?

Health care - The major health concern is that of controlling internal parasites. Such control can be effectively carried out by the use of drugs (anthelmintics) to reduce the worm burden on the sheep. These anthelmintics should be given on a routine schedule to make sure that parasites do not weaken the sheep. The cooperative extension service or your veterinarian should be consulted to develop a plan for appropriate parasite control in your area. Generally, for ewes an anthelmintic should be given prior to breeding, before or at lambing and one time during the summer. Lambs should be given an anthelmintic at weaning and at 6 to 8 week intervals depending on level of infestation. Most state veterinary diagnostic laboratories will check the feces for parasite eggs at no charge. If egg counts exceed 1000/gram then an anthelmintic is needed. There are three major anthelmintics approved for use in sheep: levamisole, thiabendazole and ivermectin. Fenbendazole (the only one that kills tapeworms) is not approved for sheep, and before use a veterinarian should be consulted.

Rotating pasture so that sheep do not remain on the same pasture for more than 21 days will help reduce infestation. Biological control can be helped by utilizing cattle or horses to graze after

sheep to reduce the larval burden on the pasture. Fertilization with liquid nitrogen also kills the larva on the pasture.

Other management tasks associated with health include hoof trimming at least annually to reduce the chances of footrot.

Fast growing grain-fed lambs should be vaccinated for clostridial diseases and vaccines are also available for tetanus. Consult your state extension service or a qualified veterinarian.

Marketing - If successful you will have a product to sell! Marketing these products is probably where most sheep owners fail in their total operation. In most states there are state pools to market lamb and wool. These offer one route of selling your products. However, the most successful producers develop their own market, whether it be to individuals or specialty stores. Much time and effort is required to develop your own market, but the payoffs can be very high. Consult your state extension service and state sheep associations for more information. In some states the state department of agriculture may have someone hired to assist in marketing your products. You have nothing to lose and the service is free.

SOURCES OF INFORMATION

Cooperative extension - Every state has a Land Grant University and an Extension Service. There are people in your state and perhaps in your county available to help you when you get started and with problems when they arise. Utilize these services, you pay for them through taxes!

Magazines - There are many magazines that are written with the sheep enthusiast in mind. Two that I have found particularly useful are the Shepard Magazine (5696 Johnston Rd., New Washington, OH 44854) and Sheep! Magazine (W2997 Market Rd., Helenville, WI 53137). Many of the Breed Associations also have magazines and newsletters.

Organizations - Most states have associations of sheep owners that will be valuable to you to join. There will be people with similar interests and these associations are very helpful to the beginner and experienced person alike. Your extension service should be able to help you make the right contact.

Books - There are many books written about sheep production. Your library should have a few. If you really want a manual for raising sheep, the Sheep Industry development Program (SID) publishes a loose-leaf book called the Sheep Production Handbook. It is the most widely circulated, most informative and provides updates as produced. To purchase a copy, write to: Sheep Industry Development Program, 6911 South Yosemite St., Englewood, CO 80112-1414 or call 303-771-3500.