

This lesson deals with sheep production as an enterprise by first evaluating its advantages and disadvantages, then identifying enterprise types and their locations, outlining primary wholesale cuts of meat and by-products derived from sheep production. Finally, this lesson considers some of the changes that have taken place in the industry.

Advantages and Disadvantages of Sheep Production

In every enterprise, there are advantages and disadvantages to producing a product. There are always problems to solve and new techniques to try.

Advantages

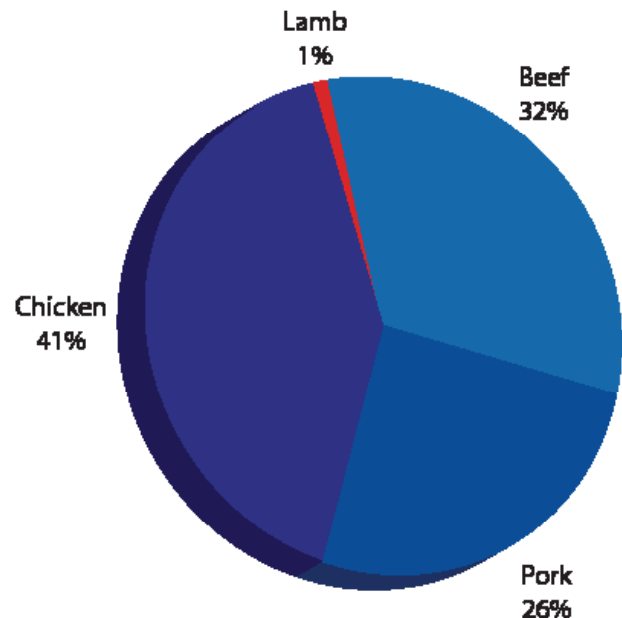
Sheep production offers many advantages. Sheep eat a variety of forages including weeds and brush. This is very beneficial to a producer because sheep do not require high-quality forages. Sheep are also helpful in eating grain that is lost in the field at harvest. Another advantage to sheep production is that the animals are very versatile and can graze in various environments such as rugged mountain areas and on land where crops cannot be produced. Wool breeds can also withstand the colder regions of the country. Sheep can be profitable for a producer because they frequently have multiple births, can be raised on a limited number of acres, and require a low initial investment. They also yield many by-products that consumers use daily. Finally, a major advantage to producing sheep is the final product: meat. Lamb is considered more digestible than other red meat. Because it does not marbled, lamb does not contain cholesterol. Lamb provides protein and is high in B vitamins, niacin, zinc, and iron.

Disadvantages

As with the production of any product, there are always disadvantages. One of the main drawbacks is that Americans do not consume very much lamb. Consumers are not willing to pay high prices for certain cuts of lamb, although less expensive cuts of lamb meat are available. The public's meat preferences are heavily drawn to beef and chicken, as illustrated in Figure 1.1. Another adverse

factor is that the meat processing and marketing structure fluctuates. This means that a sheep producer's enterprise may be profitable for one year but not the next, depending on how many sheep are marketed at a given time relative to consumer demand.

Figure 1.1 - U.S. Meat Consumption



Producers have also been affected by low wool prices. Currently, there is not a high demand for wool clothing on the market. An additional problem is that sheep are easy prey for predators because they are unable to defend themselves. Sheep are also very susceptible to diseases, injury, and various external and internal parasites. Many of the parasites are deadly to sheep and can cost the producer a lot of money. Because sheep are fragile animals, producers must carefully manage them to prevent injuries.

Another disadvantage to sheep production is that labor costs for managing sheep are high and much of the work involved with sheep production is seasonal, such as at shearing and breeding times.

Sheep Production

Enterprise Types and Their Locations

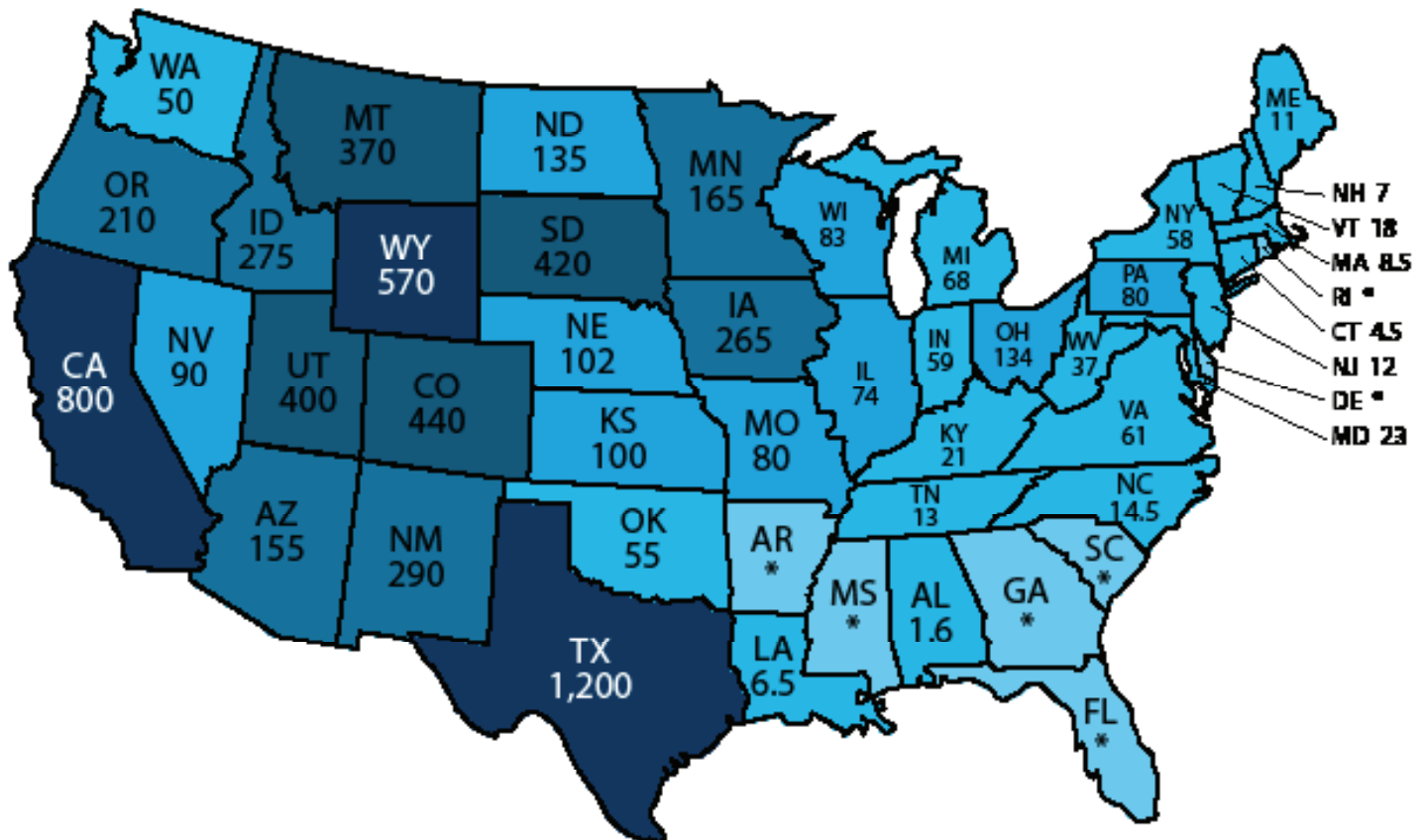
Every state in the nation has at least a few sheep producers. Figure 1.2 illustrates where producers are distributed throughout the country and shows how many sheep are produced in each state. The numbers on the map are in thousands. Not pictured on the map, Alaska has a total of 1,600 sheep. The states displaying a star (*) produce a combined total of 50,000 sheep. Hawaii, also not pictured on the map, contributes to the combined total of 50,000 sheep. The three states that produce the most sheep are Texas, California, and Wyoming.

There are many different enterprise types around the country. With the changing industry, sheep producers have to determine which type(s) will work best for them and be the most profitable. Producers display certain sheep that are well suited for exhibition. See Showing Sheep in the appendix.

Purebred

Purebred operations produce superior genetic traits using stud rams and ewes. These operations produce rams that are sold to producers who want to introduce certain genetic traits into their breeding operations. Purebred operations also sell replacement ewes to producers who are just entering the business or to established producers who want to replace the older ewes in their operations. This type of enterprise must focus on providing good breeding stock to sell to producers. Some examples of genetic traits a purebred operation might specialize in are those that improve carcass qualities and increase growth rate. Some purebred sheep animals are exhibited in shows at local, county, state, and national levels. Purebred operations are located throughout the United States, although most are in the East.

Figure 1.2 - U.S. Sheep Production



Farm Flock

Another type of enterprise is the farm flock operation. This is the most common type of enterprise and can range anywhere from 10 sheep to several hundred. Sheep farm flock operations are often part of a diverse farming operation where crops and other animals are also raised. Farm flocks tend to be a secondary enterprise for producers, so numbers are kept to a minimum. The sheep are raised in a feed lot and/or grazed in pastures. The sheep are raised for meat production and wool, even though wool is declining in value. Farm flock animals are not usually exhibited at fairs.

Some producers have sheep on the farm to use acres of land that cannot be tilled. The sheep clean up the weeds and brush and do not require a full-time shepherd. The majority of farm flocks are located in the central, eastern, and southern United States. Half of the flocks are located in the Corn Belt region, which is the central section of the country.

Range

Range producers have large flocks of about 1,000 or more sheep that graze on hundreds to thousands of acres of inexpensive land. The amount of land they graze on depends on the quality of the forages. One shepherd can usually handle 1,000 to 1,500 sheep. Range lambs are smaller than purebred or farm flock animals and are raised for meat production. Range producers choose this method of sheep production due to the lack of quality grazing land available in the area. The majority of range operations exist in the western states.

Club Lambs

Club lambs (also called market lamb) are raised for carcass quality and overall eye appeal. Generally, these sheep are crossbred and have short life spans because they are raised for meat production. The size of the sheep differs, depending on the genetic traits of the animal. Families often show stock as 4-H and FFA projects or exhibit the sheep at fairs on the local, county, state, regional, and national levels. Incentives for exhibiting club lambs include prize money, recognition, and the opportunity to partici-

pate in a recreational family-oriented activity. Some club lambs are raised as hobby sheep to produce meat and wool. Club lambs are raised all over the United States but predominantly in grain-producing areas in the Midwest.

Primary Products and By-products of Sheep Production

The sheep industry is small but it adds diverse products and by-products to the market. In addition to being processed as meat, sheep also produce by-products that are often used in common items such as chewing gum and deodorant.

Sheep production yields primary wholesale cuts of meat: leg, loin, rib, shoulder, and breast/foreshank. Leg and the loin are the most expensive cuts. Lamb is a young, tender meat, low in fat, and with a light flavor. Prices vary according to the cut. Refer to Cooking Lamb in the appendix for a variety of cooking tips and recipes.

By-products of sheep production are derived from three sources: (1) hide and wool; (2) fats and fatty acids; and (3) bones, horns, and hooves. Table 1.1 illustrates sample by-products from these sources.

Changes in the Sheep Industry

The sheep industry is always changing and as a result has become very diverse. Sheep are not just raised for meat and wool. They provide various products that contribute to the economy. However, even though sheep are useful to consumers, the total number of sheep is decreasing.

In 1942, there were 56 million sheep in the United States. In 2000, there were only 7.2 million sheep nationwide. These numbers are declining in many areas due to the public's lack of interest in sheep and the time and money that are needed to produce them. Large operations are replacing the small farms, a trend that has led to the production of more profitable livestock such as cattle or swine. These livestock animals tend to have less deadly health hazards and are not subject to stress as much as sheep are. Predators do not threaten

Sheep Production

Table 1.1 - Sheep By-products

Hide and Wool	Fats and Fatty Acids	Bones, Horns, and Hooves
Shoe linings	Chewing gum	Gelatin desserts
Slippers	Medicines	Toothbrushes
Leather gloves	Dish soap	Photographic film
Book bindings	Candles	Shampoo and conditioner
Carpet	Shaving cream	Plywood and paneling
Blankets	Antifreeze	Bone china
Lanolin	Crayons	Wallpaper
Insulation	Dog food	Marshmallows
Tennis balls	Explosives	Piano keys
Clothing	Tires	Bandage strips
Fleece products		

cattle and swine as much as sheep, so producers do not lose as many animals as a sheep producer might. It is also becoming increasingly difficult to find seasonal laborers to help with sheep production. The result of these changes is that today most producers have small flocks of 50 or fewer sheep.

The cost of lamb meat grew steadily over a 40-year period. In 1961 lamb was 15¢ per pound. As of April 2001, the average price of a retail cut of lamb in Missouri ranged from \$2.00 per pound for ground meat (burger) to \$8.00 per pound for lamb chops and loin. This is partially due to increased production cost of raising sheep. The number of lambs produced is decreasing, which means the supply available to meet demand is decreased. Prices are therefore increased. Prices also fluctuate throughout the year, depending on the season. From February to June, the price of lamb tends to be higher than normal due to the demand for the meat during the Easter season.

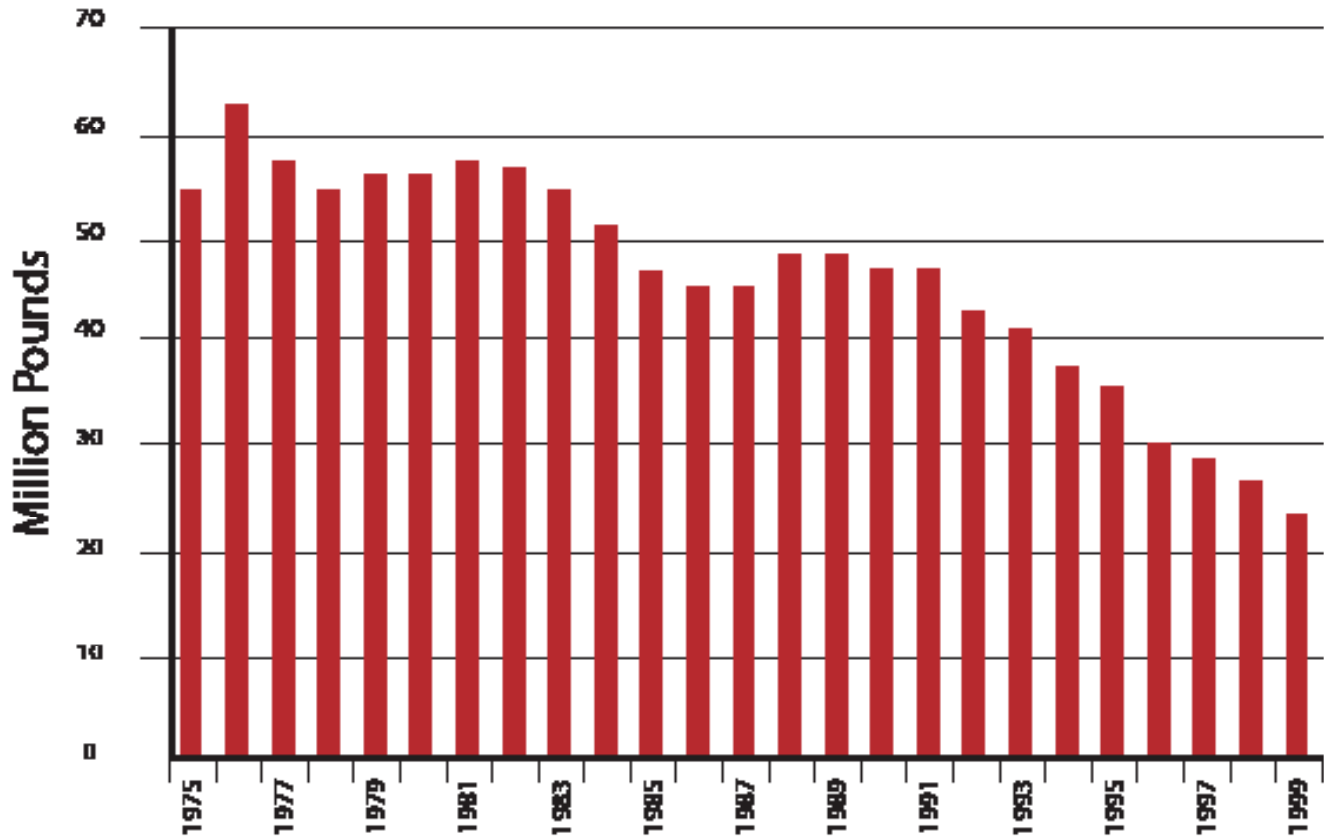
Just as the cost of meat has affected the sheep production industry significantly, other factors have influenced it as well. Wool prices are unstable. In 1978 the price of shorn wool was 75¢ a pound and then rose to \$1.38 per pound in 1988. But in 1998, prices plummeted to 60¢ per pound. The production of lamb wool per pound from 1975 to 1999 also fell, as illustrated in Figure 1.3.

Consumers' preferences are changing. They want more nylon, Dacron, and other synthetic fibers that are easy to care for. This has hurt the wool market for producers. At times it may cost the producer of a small flock more to shear the sheep than the wool is worth.

Summary

Like any enterprise, sheep production has its advantages and disadvantages. Whereas sheep are highly adaptable to various environments and provide a healthful source of red meat, consumers do not eat much lamb and the demand for wool has dropped. Yet producers throughout the United States are raising sheep that differ in size and purpose. Lamb provides five primary wholesale cuts of meat, and many by-products are derived from the hide and wool; fats and fatty acids; and bones, horns, and hooves. However, during the last 60 years, the number of sheep produced has declined due to decreased consumer demand. Despite these changes in sheep production, the sheep industry is still intact.

Figure 1.3 - U.S. Wool Production from 1975 to 1999



Credits:

Acker, Duane, and Merle Cunningham. *Animal Science and Industry*. 5th ed. Upper Saddle River: Prentice Hall, 1998.

Barrick, R. Kirby, and Hobart L. Harmon. *Animal Production and Management*. New York: McGraw-Hill Book Company, 1988.

"Fast Facts About Sheep Production in America." American Sheep Industry Association, Inc. <<http://www.sheepusa.org/news/ffpdf/ffshepprod.html>> (10/11/00).

Gillespie, James R. *Animal Science*. Albany: Delmar Publishers, 1997.

Herren, Ray V., and Roy L. Donahue. *The Agriculture Dictionary*. Albany: Delmar Publishers, Inc. 1991.

"Per Capita Consumption of Meat." <<http://www.ers.usda.gov/publications/sb965/>> (3/6/01).

"Sheep and the Environment." American Sheep Industry Association, Inc. <<http://www.sheepusa.org/environment/products.html>> (10/11/00).

"Shorn Wool Prices." <<http://usda2.mannlib.cornell.edu/data-sets/crops/89004/table34.wk1>> (3/6/01).

Smith, Barbara, Mark Aseltine, and Gerald Kennedy. *Beginning Shepherd's Manual*. 2nd ed. Ames: Iowa State University Press, 1997.

Taylor, Robert E., and Thomas G. Field. *Scientific Farm Animal Production: An Introduction to Animal Science*. 6th ed. Upper Saddle River: Prentice Hall, 1998.

"U.S. Wool Production." <<http://www.sheepusa.org/marketplace/woolgraphs/woolproduction.html>> (3/6/01).