



Use of Hair Sheep in Arkansas

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Introduction

The sheep industry in Arkansas is growing rapidly, and hair sheep breeds are leading the growth (Table 1). Unlike wool sheep, hair sheep shed their coats every year like other animals, so they do not require shearing. Many new sheep producers are familiar with the wool sheep breeds but do not want to shear sheep. Reasons producers want to avoid shearing sheep include the loss of the wool subsidies from the Wool Incentive Program, difficulty finding sheep shearers and the shearers who are available often charge as much or more than the wool is worth.

Hair sheep have a niche in the small ruminant enterprise because they have good resistance to internal parasites, are fairly heat tolerant and fit well in a year-round forage system. Hair sheep are

very good breeders, breed almost throughout the year and are good mothers. Overall, they are easier to manage than wool sheep. However, they are not as large as wool breeds of sheep and may not be as pleasing in appearance to some owners as wool breeds. Sheep prefer to graze grass, but hair sheep will eat brush from a woody area more readily than wool sheep.



Katahdin ewe and lamb

Table 1. Percent Growth in Arkansas' Sheep Inventory From 2007 to 2012

	Total		Wool Production		Sheep and Lambs Sold	
	Farms	Number of Animals	Farms	Pounds	Farms	Number of Animals
Total	24.9%	5.8%	2.5%	-59.8%	30.6%	27.5%
Farms with inventory of-						
1 to 24	19.4%	-19.7%	-7.1%	-63.5%	4.9%	0.0%
25 to 99	35.2%	-4.5%	27.3%	-54.9%	74.0%	28.3%
100 or more	170.0%		0.0%	-66.3%	190.0%	

Hair Sheep Breeds

There are “unimproved” and “improved” hair sheep breeds. The strengths of unimproved breeds of sheep (pure hair sheep like Barbados Blackbelly and St. Croix) are reproductive efficiency, parasite resistance, tolerance to heat and lack of wool. Their weaknesses include conformation, size and rate of gain.



Barbados Blackbelly rams (Photo courtesy of Barbados Blackbelly Sheep Association International)



St. Croix ewe
(Compliments of Oklahoma State University)

The improved breeds of hair sheep (Katahdin and Dorper) are intermediate between pure hair sheep and woolled, meat-type breeds in reproduction, muscling and feed efficiency traits. Live weight of a mature ewe in good condition usually ranges from 120 to 160 pounds; a mature ram will weigh 180 to 250 pounds. Average birth weight of twins is about 8 pounds. As in all breeds, there is variation among breeds and in individuals within a breed. The improved breeds grow faster and produce meatier carcasses than the unimproved hair sheep breeds. This is especially true of the Dorper, which is more heavily muscled than meat-type, woolled breeds and has a growth rate comparable to woolled sire breeds. Though they are still expected to shed their coats annually, there is considerable variation in coat types. The hair coats of the improved hair sheep breeds contain more woolly fibers, especially the Dorper.



Rear view of Katahdin sheep



White Dorper sheep and ram lamb

Royal White® sheep are a new breed in the United States that were developed in Texas by crossing St. Croix and Dorper sheep to obtain a pure hair sheep with better muscling than other breeds of hair sheep. The ewes range in weight from 175 to 210 pounds, and a ram will weigh between 185 and 235 pounds. Royal Whites® are completely white, polled sheep whose winter coat is expected to shed naturally and completely in the spring.



Royal White® sheep (Photo courtesy of Jacob Masemore, Never Fail Acres)

The American Blackbelly, also known as the “Barbado” or “Corsican,” resulted from crossing the Barbados Blackbelly with the Rambouillet and Mouflon to create an animal with trophy horns for hunting on Texas game ranches.



American Blackbelly (Photo courtesy of Barbados Blackbelly Sheep Association International)

History of Hair Sheep

Most breeds of hair sheep originated in Africa. Some breeds originated in the dry desert lands of South Africa, and others are from the tropical areas in West Africa and were further developed in the Caribbean. The origins of the breed determines the characteristics of the breed. A breed from South Africa, e.g., Dorper, offers the ability to survive under harsh, dry desert conditions. The breeds from the Caribbean and West Africa, e.g., Barbados Blackbelly and St. Croix, thrive under the rigors of heat, humidity and parasites.

The Katahdin, which was developed in the United States, is somewhat unique in that it can thrive under diverse environmental conditions. Its heritage makes it suitable for hot, humid environments with significant parasite challenges. It was initially developed in Maine, where the northern climate makes it able to adapt to colder climates.

Likewise, the Royal White® results from crossing hair sheep adapted to both arid and humid environments, making them suitable for environments found throughout the U.S. They are both heat and parasite tolerant with the ability to adapt to colder climates.



Katahdin sheep thrive under diverse environmental conditions (Compliments of Katahdin Hair Sheep International)

The wild ancestors of today's domestic sheep breeds had long, coarse hair and a short, downy undercoat. Under domestication, the coarse hair gradually became wool as the long hair disappeared. Wild sheep, such as the Mouflon (ancestor of the American Blackbelly), do not have wooly coats.

Hair sheep are not a cross between breeds of goats and sheep. The primary difference between hair sheep and wooled sheep is the ratio of hair to wool fibers. Hair sheep have more hair fibers, and wooled sheep have more wool fibers. Hair sheep do not have to be sheared, although there are differences in shedding ability of individual animals. Some hair sheep will appear shaggy, since not all of the hair will shed. Hair sheep also do not need their tails docked, although some producers elect to dock their tails for "improved appearance." Most wooled sheep have their tails docked for improved health and sanitation.

Like the wool breeds of sheep, there is considerable diversity in hair sheep breeds. Much of the differences relate to their origin. Some breeds and animals have short, slick hair coats absent of wool, while others have thicker coats containing a mixture of hair and wool fibers that shed naturally every year. A desirable characteristic of hair sheep is that they tend to grow more wool fibers in cold climates, which allows them to adapt to different climates.

Hair sheep and wooled sheep can be crossed. Hair sheep have the same number of chromosomes as sheep with wool. Usually, the offspring will have traits that are intermediate between the two parent breeds.

Advantages of Hair Sheep

There are advantages to raising hair sheep rather than sheep with wool. They tend to have a high level of reproduction, with a lambing rate of 150 to 200 percent. Additionally, they are good mothers who care for their young. Hair sheep tend to have a natural resistance to internal parasites and other pests. The resistance developed as they survived in the wilds of Africa. There too they developed a greater tolerance for heat and humidity than some of the traditional sheep breeds.

Hair sheep lambs have a good livability rate. Growth rates of lambs will not be as great as breeds of wooled sheep since they are not as large. Some individuals and breeds will have better growth rates than others, which makes it important to select foundation animals suitable to your management system.

Hair sheep, like wooled sheep, can be used for multi-species grazing with cattle, horses and other small ruminants. They are intermediate between goats and wooled sheep in their ability to clear brush and weeds from a field.

Disadvantages of Hair Sheep

Hair sheep breeds are not as suitable for the club lamb market as more stylish woolled breeds of sheep. Some breeds of hair sheep can be heavily muscled but usually are not “pretty” enough to be competitive in strong market lamb shows. They are not as large as most woolled sheep and will not produce as much meat per ewe. Hair sheep do not tend to do as well in cold weather as woolled sheep. They are bred for hot, humid climates, although they can be sustained in colder climates. Although beauty varies with the eye of the individual, many view hair sheep to be less attractive than conventional wool-breed sheep.

Many of the hair sheep breeds tend to finish more like goats, in that they deposit fat around their internal organs before they deposit external fat. This type of fattening suggests they should probably not be full-fed on a high-energy diet in a feedlot, although more research is needed in this area. Some think hair sheep need to be finished more slowly on a lower-energy, higher-roughage diet.

Summary

Hair sheep may be suitable for many small ruminant producers in Arkansas or for producers who wish to graze small ruminants with another species. If producers are considering hair sheep for a commercial enterprise, they should get as much information about them as possible. Talk with your local county Extension agent and producers who have hair sheep in your area. Review information on www.sheepandgoat.com.

Hair sheep are easier to manage than wool breeds of sheep, in part, because they have increased resistance to internal parasites, are fairly heat tolerant and fit well in year-round forage systems. They also are very good breeders, breed throughout the year, are good mothers and can be used in multi-species grazing. However, they are not as large as woolled sheep and are not as suitable for a

market show project. As with all livestock, hair sheep require adequate management or they may provide negative returns on the investment.

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