

Grazing Sheep

—Ulf Kintzel

Many sheep breeds are most suitable for grazing and are able to thrive without any grain. This is a big advantage in times when grazing experiences a revival and in times of high grain, fuel, and equipment costs. In this article I would like to describe my grazing system throughout the year, what equipment I use, and what breeds of sheep I favor.

GRAZING: I pasture my sheep in a rotational grazing system from April through January. The remaining 90 to 100 days I feed hay. The day grass starts growing around here sometime during the first week of April, sheep can feed themselves and will leave most medium-quality hay untouched. At this point in time it is important that one offers a lot of acreage, since the yield is very low. The onset of my actual pasture rotation is determined by the growth of the grass and varies slightly each year. However, usually by the end of April or early May the flock does not keep up with keeping the grass short and I start creating smaller cells that last about a day or two. This is a short time in comparison to the average time that my sheep spend in a cell throughout the year. I do this to be able to keep up as much as possible with the growing grass so it doesn't grow away on me, meaning I don't want to let it get too tall because it will decrease immediately in digestibility and palatability.

The day will come in late May or early June when I will not keep up and some pasture grows ahead of me. Once this happens, I have two courses of action available and it depends on the year which course I choose. If the yield is high that year, I set a certain acreage aside and let it grow. I then have it custom hayed. (That is the only hay I make on my property. I buy most of my hay.) If the spring is dry that the yield doesn't justify making hay in these fields, I pasture these fields generously and then bush hog each cell after grazing. I "waste" some pasture this way, but in the end it is organic matter that benefits my pasture. In fact,

"You can feed 10 sheep where a cow would starve to death" (German Saying)

I prefer pasturing everything and thus "wasting" some forage, since haying does take out nutrients that need to be replaced.

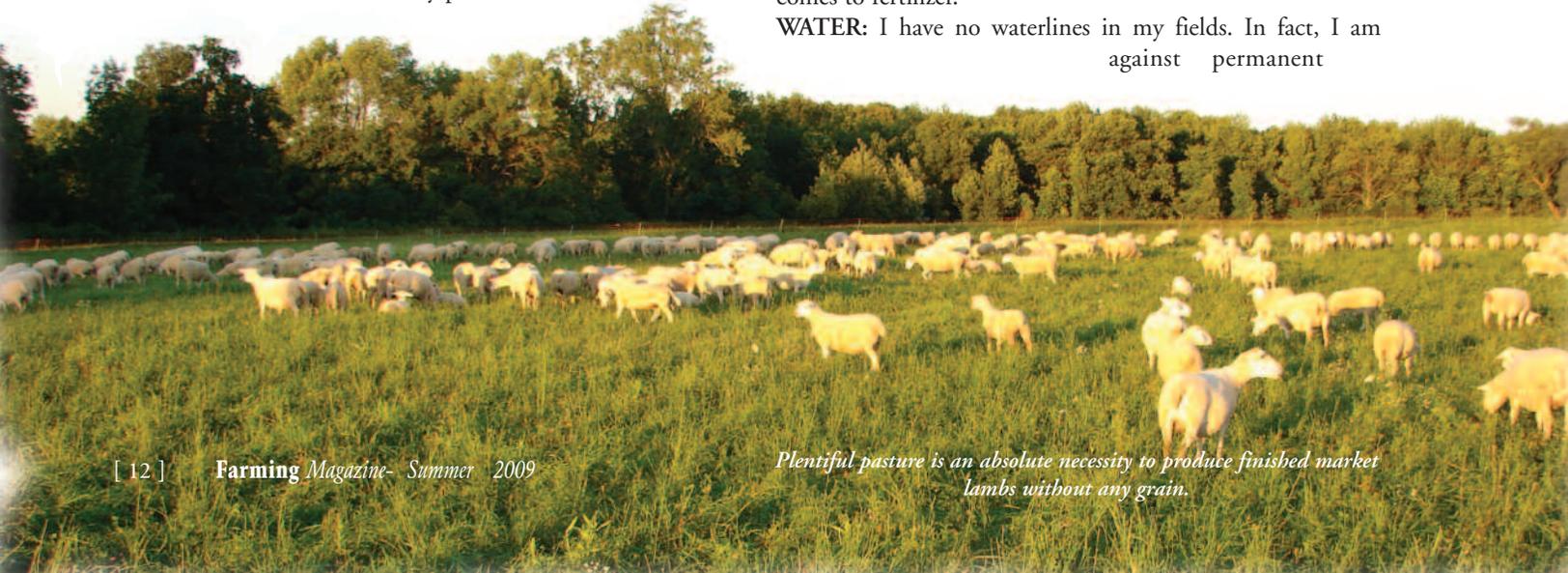
I continue grazing the flock throughout the summer on my property and on adjacent pasture that I have rented. The size of the cells varies throughout the year and depends on the amount of grass available and on the work load that I experience at the time. The goal is to rotate as often as possible. The closer I get to a one to two days' rotation, the more usage I get out of my pasture. However, since I use temporary electric fencing that needs to be installed before using a cell and taken down after it has been grazed, I don't always reach that goal. The time the flock grazes in a cell can be at times 4 or 5 days long. This allows me to attend to the many other jobs I need to do also. The rare exception for the flock to graze in the same cell is 7 days for my annual vacation in August.

In the fall I start using harvested fields, particularly hay fields at neighbors' farms. I move my flock using my dogs, walking in part on public roads. Once I arrive at my destination, I use temporary electric fencing to keep them contained. I usually extend my stay well into the winter. Up to a foot of snow is no problem for the sheep just as long as there is enough grass underneath the snow and the snow is not packed, drifted, or frozen.

Meanwhile, I stockpile my pasture at home during the months of September and October. I use that stockpiled grass during breeding season and then again as long as it lasts into December and January. If I get an early snow that is too heavy for the sheep to graze, I will still be able to use the remaining pasture when the snow melts during a thaw or again in March.

The remainder of the year, from January through early April, I feed round or large square bales in self-made round bale feeders. I feed all my hay outside in the pasture. Since I usually buy all my hay, I have an additional input when it comes to fertilizer.

WATER: I have no waterlines in my fields. In fact, I am against permanent



waterlines, since they will limit my creativity how to set up my grazing cells throughout the year and because of the usual manure deposit around permanent watering places. Instead, I have a 320-gallon water tank mounted on a trailer that I pull with my truck. This allows me to be as flexible as I want to be when it comes to watering. In addition, it is far cheaper than having water lines laid. I use 50-gallon plastic water troughs to water my sheep. It is important to use a trough with walls that are low enough for the lambs to reach the water.

MINERALS: Throughout the year I feed sheep minerals to avoid deficiency diseases such as White Muscle disease. I mix it with salt to reduce the intake somewhat. Both minerals and salt also work just like some salt works for us on our food. The sheep are likely to eat more of what they otherwise may not like as much. I use high-wall rubber pig feeders to offer the salt and mineral mix. I use one-third salt and two-thirds minerals during lactation and the reverse for the remainder of the year. Sheep minerals are supposed to be free of added copper due to a sheep's heightened sensitivity to copper. While this is true, I also once experienced a copper deficiency during lambing season after having pastured limed fields for an extended period of time. This led to many losses and ever since I use some beef minerals with added copper when the ewes are about 100 days pregnant. That is the time when the central nervous system of the unborn lamb develops. Copper is needed for this system to develop.

FENCING: As I stated in my previous article, I have woven wire all along the road frontage I own. Everything else, remaining perimeter fence as well as interior fencing, is fenced with electric nettings. An electric netting is a prefabricated temporary electric fence with conductive horizontal twines, with built-in posts and connecting non-conductive verticals. This mesh of fence is 50 meters (164 feet) long and can be rolled up after taking it down. There are different electric nettings for sheep and other livestock on the market. The three differentiating characteristics of electric nettings are: spikes per post, height, and material of vertical connections. The most common height is about 36 to 38 inches. Higher nettings are about 42 inches tall. The material of the verticals are called strings when flexible and struts when static. The posts can have a single spike or can have double spikes. The double spike allows you to step the post into the ground.

I use a brand called Euro Netz (Euro Net) made in

Germany. I buy it directly from Germany. There are domestic providers of electric nettings such as Premier, Kencove, and various other electric fence suppliers. The quality of electric nettings can vary greatly. However, overall quality of domestic nettings has greatly improved over the past 15 years.

My nettings are about 36 inches (90 cm) high and about 164 feet (50 m) long, with flexible verticals and double-spiked posts. Personally, I think this height is sufficient. I have used taller nettings that are 42 inches high, but I find them impractical. They are more difficult to erect and the wind knocks them down easily.

In my opinion, the flexible verticals allow me to roll the nettings up quicker and more accurately. I know sheep farmers who prefer nettings with struts as verticals because they work better in uneven terrain since the struts keep the horizontals from sagging and the hot wire from touching the

ground. In other words, each strut acts like a mini post. I believe it boils down to personal preference rather than one netting being superior to the other.

The same holds true for the posts. The double spikes allow me to step the post into the ground as opposed to force them in by hand as is necessary for single-spiked posts. Using the foot is particularly important when the soil is hard because of drought or stones or frost.

The double-spiked post also stays better in the ground when it is windy. Last but

not least, during hard frost I can use a hammer and tap the posts into the ground by hammering the "bridge" between the two spikes. I only get the spikes deep enough into the ground that it holds the post. When I want to get the posts out, I use a ground rod or the like and put it in between the two spikes and lift the post out, using the ground rod for leverage. When using nettings with single-spiked posts, one can lay out the nettings and pre-drill the hole for the spike. Single-spiked posts are easier to remove when it is frozen by simply turning the post, which loosens up the spike.

When erecting the electric nettings, it is important to stretch the fence and put it up tight. If there are loose sections of fence, they are likely to become a death trap for sheep, as they can get caught in the fence and choke to death or get electrocuted.

I use my electric nettings on my own property to create my cells for rotational grazing. In the hot summer months I always include a source for shade such as trees and parts of a hedgerow. When I create one cell, I usually think ahead



My electric nettings allow me to graze sheep wherever, whatever, whenever. Here I am grazing the neighbor's wheat field.

where the next cell will be. This way I can leave one side of the cell standing. This one side of the old cell becomes one side of the new cell.

When I pasture my sheep on the neighbors' farms, my electric nettings become exterior fence.



My sheep graze stockpiled pasture well into December and January.

While I always have to follow the natural features and shapes of a field, I try at the same time to make the parcel as square as possible. That gives you the maximum fenced-in area using a set amount of fencing. (For those who do math well: Of course, a circle would utilize the biggest area using a set number of nettings. However, that is impractical and thus a square is the favored shape of a cell.) I avoid making the pasture long and narrow. I start at one end of a particular field, usually the one next to an access road. When I rotate the flock after about one to three days, the farthest side of the old cell becomes the closest side of the new cell. Since shade and a rotational schedule are usually not a concern in late fall and early winter, I often just enlarge the existing cell and take down the dividing fence. This practice saves me moving the water trailer and the trough(s).

The source of energy is a decisive factor when it comes to the reliability of the fence. I use exclusively Gallagher energizers that are designed for sheep fencing. The standard energizer I have has 2.6 Joules. Energizers that store less than that are often not sufficient for 15 to 20 nettings or for a high weed load on fewer nettings. The Gallagher B260 is my long-time favorite. It is handy and it is powerful. I have two that are now more than ten years old. Still, the grounding is for most people the weakest link in their fence system. Although I use only one ground rod that I hammer a few feet into the ground, I always make sure I have it in wet soil. During the drier months I take a bucket that leaks slightly, fill it with water, and set it next to the ground rod. Because the water empties very slowly, it drenches the soil right next to the ground rod and does not run off. The source of power for my energizers are marine batteries. Marine batteries are designed to be run down entirely and then recharged again.

SHEEP: The choice of sheep is of paramount importance. Due to the creation of show sheep and due to feed lot practices, there are nowadays many sheep that do not thrive on grass. Their rumen capacity is too low and their maintenance too high to raise them solely on pasture and have them perform without grain. I suggest looking at where the sheep come from, and under what circumstances they are kept. A farm that advertises show records instead of

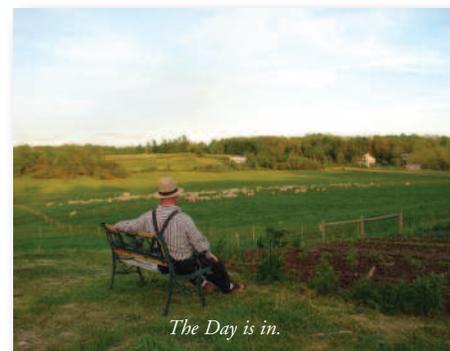
performance and production records is less likely to have sheep suitable for pasturing. A farm that is a feedlot where the pasture is more a place for the sheep to exercise than to graze is also not likely to have sheep that perform on grass. I find these criteria almost more important than the choice of breed. However, what breed to choose is a close second.

All things being equal, there are some breeds more suitable for grazing than others. There are some breeds that come from areas that never required the breed to be hardy. Some breeds were never required to be prolific, because survival and hardiness were

more important than performance. Other breeds again were developed almost solely to create terminal sires. There are some breeds that combine several good traits and are hardy, prolific, and have good performance. In case of my sheep, performance would mean an excellent rate of growth on pasture and overall meatiness. I upgraded a Texel flock with White Dorper rams and have now mainly high percentage White Dorper ewes. Generally speaking, both Texels and Dorpers are very suitable for grazing. Both breeds finish well on grass. Furthermore, they maintain their body condition on first-cutting hay in the winter. Dorpers are also very good browsers and are far more heat tolerant than Texels.

Last but not least, I want to address hoof rot. This disease is unfortunately common in many flocks. While the disease doesn't kill sheep, it is a huge economical factor. Sheep with hoof rot are in pain. This is especially significant in a grazing system where the sheep have to use their feet. They can't walk well when having hoof rot. They can't paw the snow away in the winter to get to the grass. They don't ovulate well and don't breed well. Milk production is down when the ewe is in pain. No matter how suitable the breed is you choose, make sure they are free of hoof rot. 

Ulf Kintzel is a native of Germany. He moved to New Jersey in 1995 and in 2006 to Rushville in the Finger Lakes area in upstate New York. Ulf owns and operates White Clover Sheep



The Day is in.

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