What Jt Takes to Successfully Raise Sheep on Forage Without Any Grain Part 1 of 2

Grazing stockpiled pasture in mid-January

A REAL PROPERTY AND

A customer of mine, who had purchased White Dorper ram lambs for his Katahdin ewes, called me and expressed his astonishment at the quality of the carcasses of my grass-fed lambs. He had seen the carcass picture in this very publication and wanted to know how I did it. This anecdote illustrates what I encounter often: How do you make grass-fed successful? How do you get the growth rate and finishing quality for your lambs so similar to grain-fed lambs?

I wrote about it in a brief article many years ago. Since the topic continues to come up, it is perhaps time to revisit it and elaborate more on the key factors that make grass-fed successful.

There are two key items to a sheep farm: the sheep themselves and the management. "What is more important," I was asked last year by a customer at a pasture walk, "the genetics of the sheep or my management?" The answer is you need both, but your entire management, even if nearly flawless, will not get you to your goals if the genetics of your sheep are lacking.

So let's talk about the kind of sheep you need. Please note, I said "kind of sheep" and not "breed of sheep." Here is why: In the United States, you have a clear split between sheep bloodlines. On one hand, you have sheep that have received heavy grain rations for many generations. That includes the show sheep and the sheep raised as 4H projects, with a big overlap between the two.

The heavy grain-feeding has caused many things: First and foremost, it has changed the build, the structure of these sheep. Originally, many of the breeds of sheep you see in the show ring or those used to produce lambs for the feedlot were deep-bodied sheep, able to consume a lot of forage. Some of the most traditional sheep breeds come to mind: Dorset, Hampshire, and Suffolk sheep. If you were to compare pictures of these breeds in the US, comparing pictures of these sheep from the 1950s to current day pictures of their counterparts in countries like Great Britain or Australia, you would not believe they are one and the same breed. They have completely different body structures, and are built entirely differently. When you now take sheep that relied on heavy grain-feeding for generations, taking their structure into account-big, bellies too tubular, lacking depth-and use them for a grass-fed enterprise, you are likely to fail. There just isn't enough rumen capacity to eat enough forage, which is less nutrient-dense than grain, to thrive and fatten. If the sheep are also large rather than medium sized, you amplify the problem because larger sheep have higher maintenance requirements. How do I know, besides this being self-evident? I have been there and done that. My learning curve was steep and costly. I remember one example (of many) very vividly: I had arranged to meet a breeder of Dorset sheep at an auction when I was still in New Jersey. I knew Dorset sheep from my trips to England, a fine breed of sheep in many regards. When I met the breeder in the auction's parking lot, he showed

Ulf Kintzel

me the ram: a leggy, tall animal with a tubular belly. The gentleman was a very nice fellow, and I couldn't get myself to decline taking the ram. I used the ram for one year. He sired lambs in his image. These lambs took a lot longer to be brought to market. They grew quite well, got large, but they didn't "finish," meaning I could not get them to fleshen and put on an appropriate fat layer. They were tall and skinny. This is an anecdote, but it illustrates well the point I am making.

You may have noticed that I used the example of a breed of sheep I don't raise—Dorset sheep. This is a fine breed in its original state. Most Dorset sheep in the US are unfortunately of the long-legged, large kind, useless for grass-fed production. However, there are a few breeders who are breeding Dorset sheep the way they once were. I could have done the same describing Hampshire or Suffolk sheep or many other breeds. I purposely did not use the example of the breed I raise—White Dorper sheep. I don't want you to think I am promoting my sales of White Dorper sheep. Believe me, I am not shy about doing this, but I want you to understand it is in many cases not a matter of the breed of sheep. It is about the bloodlines within a breed, the bloodlines being

shaped by how the sheep have been raised for many generations. The way they are raised influences the selection process. Producers select large sheep for the feedlot. Graziers select medium-sized sheep with deep bodies.

Having made such a broad statement as above that the breed doesn't matter as much as the bloodline does, I will backtrack a bit right away. That is because in some cases it is a matter of the breed of

sheep. Some breeds just aren't meat sheep and are bred for wool or milk. Other breeds are just too small or lack enough size for prime cuts—prime cuts being loin and rib chops as well as hind legs (leg of lamb). I am going to single out the very popular breed of Katahdin sheep but the same applies to other breeds like Sain Croix, Barbados, and Icelandic sheep. Yes, the Katahdin sheep, have many fine traits, being good mothers, graze well, have some bloodlines that are more resistant to parasites than others, and the breed sheds well. What is lacking is the size of prime cuts. How do I know? Because the majority of my customers for ram lambs for breeding purposes are sheep farmers with Katahdin ewes. The use of my White Dorper rams "beefs" up their lamb crops, which is particularly apparent after using them for two to three generations.

Another little nugget when comparing sheep breeds is their grazing habits. Some breeds eat less selectively than others. That is of particular importance when the pasture where the sheep graze is less improved, say some weedy hayfields neglected for many years. These weeds are often just as nutritious as pasture grasses that are grown on purpose. Yet some breeds only nibble on them, if that, and others will wholeheartedly graze them. Picky Suffolk sheep are on one end of the selective eaters while most hair sheep as well as Texel sheep, albeit to a lesser degree, are on the non-selective grazing spectrum.

Nowlet's address the management. Your management can have the greatest positive impact if you chose wisely when you selected your flock of ewes, originating from a farm that has already been implementing good grazing practices, using no grain or only small amounts of grain at certain times of the year when the nutrient demands are highest (for instance lambing season in the winter in the barn). What's next? What will have the greatest impact on your existing pasture to make it more productive? This is



Shelter in the winter means for my flock being able to get out of the wind.

the question I am being asked often. The most common misconception I am coming across is that weedy pastures aren't any good. As I stated, that is incorrect. Most weeds, as long as they are eaten by sheep (and some are simply not eaten), will rival any pasture grasses and plants that are planted. For instance, have any of you watched sheep strip the stems of goldenrods of all the leaves? Sheep love it. I can say from personal experience that the daily gains in a field of goldenrod and other weeds are just as high as they are when grazing fields with improved grass species.

The easiest and cheapest way of improving pasture



that has existing grass but is lacking in diversity and legumes is to frost-seed with red and white clover. Medium red clover is a biennial, but under proper grazing management with ample pasture rest, it will reseed itself enough to persist in the pasture. When seeding white clover, I recommend a New Zealand grazing white clover variety. Why clovers? They will increase intake, but they will also make your pasture more sustainable by utilizing nitrogen from the air as fertilizer via the bacteria attached to the roots.

Furthermore, if possible, you want to stay away from growing fescue. That is a tough call in some parts of the country. However, you need to know that sheep don't like fescue very much and it can reduce feed intake. In my experience, that is even true with the most improved and "leafy" varieties. Ironically, sheep will start liking fescue in late fall when the plants put sugar back into their leaves. In addition, fescue is the best grass to stockpile because it holds its nutritional value the best compared to other grass species. Keep that in mind if you cannot avoid fescue grass entirely.

When I look at pasture mixes offered by seed companies, it almost always has fescue in it, often even a quite high percentage. I stay away from purchasing pasture mixes altogether when I reseed some acreage. A late-heading orchard grass variety plus a New Zealand

grazing white clover and medium red clover is all I need in a pasture mix, which I can easily mix myself.

Now let me get to one of the most important keys to raising sheep successfully on pasture: the pasture rotation. A rotation of once a day should be aimed for. Why is that? Grazing Cells Setup Grazing Cells Setup Grazing Cells Setup

The way I set up grazing cells well in advance.

Let's assume the current pasture cell is set up for five days. On the first day the sheep will eat the best plants in the pasture. They will be full after day one. The second day they may still find enough of the same good stuff that they ate on day one. On day three the best plants will be grazed. They will now either eat in the places where the good plants were and graze them shorter than they should, or they will start grazing some of the less desirable plants. These plants are often less desirable because they don't taste as good to a sheep. They are not necessarily less nutritious. So, what is the problem then, you might ask. The problem is that intake will go down. That is a big problem when sheep are entirely grass-fed. High intake is a must to be successful, to get high gains, and to get finished lambs with an adequate fat cover. My flock grazes every day to the fullest during grazing season. There are no exceptions. Spinning this scenario of a five-day pasture rotation further, you may already have guessed what comes next. With every subsequent day the sheep will graze fewer and fewer desirable plants, and the intake will go down more and more.

The dynamics and the interactions between individual animals in a one-day rotation are different. When the grazing cell is smaller, the animals graze closer together. They will have less opportunity to move around and search for plants they may like a little more than the

one right in front of them. Furthermore, there is food envy. If there is a sheep to

a sheep, that sheep will hurry up eating what's in front of it, not wanting its competitors to get that forage. It leads to less selective grazing. That works particularly well if you have a breed of sheep that is already a

the left and right of

[14] Farming MAGAZINE—Spring 2025

less selective grazer. As a reminder, less desirable plants are often just as nutritious as the desirable or planted ones, just as long as the fiber content is low and comparable.

I used to practice pasture rotations of about three days on average when my flock was larger, when they spent more time on rented fields, and all my fencing was temporary fencing, including the perimeter fencing. Since I spent more time at the home farm, which has been fenced with permanent perimeter fencing for ten years now, I have gone down to a daily rotation. The advantages became very apparent very quickly, both in animal performance and in positive impact on the pasture.

How about a twice-daily rotation like some grassfed dairy farms practice? I do occasionally a twice-daily rotation for various reasons. I don't advise against it, but I find the additional benefits compared to a daily rotation rather marginal. It may not be worth the extra effort.

One reason why some have shied away from a daily rotation and resorted to a three-to five-day rotation is the belief that each new grazing cell requires us to move every piece of netting, the water trough, the portable shade, the mineral feeder, and the battery and energizer, including ground rods. That is simply too much work, especially when the flock is rather small and is a sideincome. So how do you design a daily rotational grazing program that is not so involved to implement and is thus more sustainable? I addressed the way I set up my grazing in an earlier article for this magazine. This article can be found on my website. A video about that can be found on my YouTube channel. I have included the drawing of my pasture cells setup in this article. In essence, I set up multiple grazing cells, up to nine or even ten days' worth of grazing cells, by putting up two parallel lines of temporary fencing about 50 to 100 yards apart. Then I use temporary fencing to add perpendicular dividers, creating grazing cells worth a day each. The first grazing cell includes the shade, the water, and the mineral feeder. All I need to do now for several days in a row is remove a fence line that is the divider to let the flock into the next cell. This goes so fast that observing the flock's health status after entering the new grazing cell takes more time than removing the fence, which takes only a few minutes. Backgrazing is minimal when the size of the grazing cells is properly estimated. If not, one can always remove a dividing fence earlier than planned if the previous grazing cell ended up being too small. In any event, any backgrazing is by far the lesser problem compared to the sheep spending several days in the same grazing cell.

Aside from intake and less selective grazing with a daily rotation as described above, there is another factor in play: the human factor. I have heard countless times from sheep farmers who told me they were just too busy to do a rotation on a particular day and thus the sheep were not entirely fed that day. Anytime that happens, you remove yourself a bit from your goal to finish your lambs on forage alone. That is why a grazing system ought to be simple and should only require a considerable amount of work every so often and little work on the days in between. If you need to do major work every day to accomplish your goal of a daily rotation, it will not be sustainable because life will likely get in the way. Look at my setup in my drawing and see how you can tweak it to suit your needs on your farm with your sheep.

I will sidetrack just a moment to address a scenario that is often viewed as rotational grazing but is actually not rotational grazing at all. I still run into customers or callers who have their pasture divided in two or three grazing cells. They graze one cell down, taking at a minimum more than a week, many times a lot more than that, and then move the flock to the next grazing cells. However, just because they rotate between two or three pasture cells doesn't make it a rotational grazing program. Not even close! Any pasture rotation that goes beyond a week is not considered rotational grazing. If that is indeed your understanding of rotational grazing, you will fail.



Ulf Kintzel 683 Bagley Road, Rushville, NY 14544 (585) 554-3313 www.whitecloversheepfarm.com Email: ulf@whitecloversheepfarm.com



Another term for rotational grazing is managementintensive grazing, a term coined by Jim Gerrish. I already practiced rotational grazing for many years, even decades, before I came across this term. So, I will stick to my terminology. I am bringing up the term managementintensive grazing for a different reason. The word "intensive" refers to the word "management". It does not refer to the word "grazing". So, Jim did not suggest that the animals will graze intensely, perhaps grazing the pasture down to its roots. He suggested that the rotational grazing program requires intensive management. Your brain power is required. I have met few farmers in my life who are too lazy to work. Most farmers I know work so hard that I sometimes wonder, "Do you care to stop and think what you are doing"? When it comes to thinking, planning, observing, thinking again about the planning, and the observations they made, I have found many who would rather work a little harder physically than giving

their work a little more thought. I know, such a statement does not necessarily gain me new friends, but instead I may lose a few followers. However, I stand by my statement that I made many times before, that the brain is indeed the most underused organ by many farmers. But rotational grazing requires exactly that: Using your brain. Gaining knowledge. Making plans. Changing, adjusting, and tweaking these plans. Trying out some new things. Taking time to observe the animals and their grazing habits and analyzing what was observed. In short, being management intensive. When I was asked once to give some analysis of certain farm situations, I was literally told by the owner or manager that they don't want to be bothered with a system that requires daily thought.

What else is needed to be successful doing grass-fed? Knowledge about plants is needed. You want to know your orchard grass and your blue and rye grasses. You want to be able to identify fescue, and you need to know



why sheep generally don't like fescue and what time of the year they start liking it. You need to know what stockpiles well and which plants don't. You need to know why legumes are important and which ones can cause bloat. You need to know how plants grow and why it is important to leave residual. The list goes on. Knowledge is important. Education, which comes in many forms, is important.

Ulf owns and operates White Clover Sheep Farm and breeds and raises grass-fed White Dorper sheep without any grain feeding and offers breeding stock suitable for grazing. He is a native of Germany and lives in the US since 1995. He farms in the Finger Lakes area in upstate New York. His website address is www. whitecloversheepfarm.com. He can be reached by e-mail at ulf@whitecloversheepfarm.com or by phone during "calling hour" indicated on the answering machine at 585-554-3313.