

Making the Transition to Grazing, Part II

Laura Paine, Columbia County Crops and Soils Agent; and Paul Bickford

March, 2002

This is the second in a two part series on transitioning to grazing. Last time we talked about the 'grazing mindset' and looked at existing resources you have to make the transition. This time we'll get into developing pastures, herd management and pulling everything together. (If you missed last month's article, contact me and I'll send you a copy (608/742-9682; laura.paine@ces.uwex.edu).

Paul Bickford was one of the early adopters in the grazing movement. Back in 1992, in his all-or-nothing style, Paul converted his 400 cow confinement system to a pasture based system. When I heard him speak at the Wisconsin Grazing Conference that winter, he thought he was done making the transition. In reality, it was only the beginning. Today, Paul and his wife Cyd milk over 600 cows on 1700 acres of pasture and cropland near Ridgeway in Iowa County. Over the years, he's gained some unique insights into one of the greatest hurdles to getting into grazing. How do you get started?

The first real logistical question most livestock farmer need to ask when converting to a pasture based system is: How much pasture do I need? The most accurate answer to that question is: It depends. And it really does depend on so many factors that we probably don't want to get into them all. But to get yourself started, let's use a rule of thumb.

A very, VERY general rule of thumb. We can think generally in terms of allowing about one acre of pasture for each 1000 pounds of animal, 1000 lb = 1 Animal Unit (AU), for a 6 month grazing season. Obviously, this is going to vary depending on the productivity of the pasture, the species and breed of animal, soil type, weather, your management style, to name a few variables...but it'll help you get started thinking about pasture requirements and how to meet them.

If you've got a 60 cow herd, that's about 78 AU (60 head x 1300 lb/head = 78,000 lb). So, you'll need a minimum of 80 acres to fully convert to pasture based forages during the growing season. Of course, you'll still need winter forage, but some of that can come from the pastures. And most graziers supplement at varying levels with grain or silage. Plan on making a gradual transition, seeding down pastures over several years. Start out working with what you've got.

Existing pasture. As we mentioned last time, your existing pastures are an asset even if they're pretty beat up. They'll give you a start. You'd be amazed at what a little fertilizer and a few well-timed rest periods can do for their productivity. Some day you may want to tear this old pasture up and replace it with improved varieties, but right now it's more valuable just as it is.

Grazing existing alfalfa fields. Grazing alfalfa brings with it the risk of bloat. That risk is lessened later in the season, especially in older, grassy stands. Take first cut off alfalfa fields and graze them later in the season to reduce problems. Interseeding grasses into alfalfa can be successful, but it's not fool-proof. Frost seeding seldom produces good results. No-till drilling some ryegrass or orchardgrass might be worth the investment if the alfalfa stand is very open. If your alfalfa field has a strong stand of quackgrass in it, it might be best to just

fence it and start grazing. As many graziers have learned, quackgrass is a highly palatable, nutritious contributor to pasture productivity.

Seeding down crop fields. The better crop farmer you were, the longer it will take to develop productive pastures from crop fields. This is one situation in which a plentiful and diverse weed seedbed is a good thing. Remember that cows can turn almost any plant material into milk. Although there will be undesirables, you'll also get volunteer red and white clover, quackgrass, and smooth brome coming in. The more successful you were at controlling weeds in your corn, the smaller the contribution this resource will make to your new pasture.

Rowcropping also tends to deplete certain types of organic matter in the soil, reducing water-holding capacity and nutrient availability. It takes time to rebuild these resources. Plan on your newly seeded pastures being relatively unproductive. Many graziers observe great first year yields, then see lagging productivity for several years until soil fertility and organic matter are restored. It can take ten years or more for a pasture to mature and become really productive. Unlike many other crops, pastures only get better with time.

Many producers begin grazing new pastures too early. After developing over 800 acres of pasture, Paul recommends not putting cattle on a new pasture the first season. In his experience, 'seeding takes forever if you want it to last forever.' He's had better pasture establishment and long term productivity if he mechanically harvests new pastures for the first year or two.

Paul's also had better success seeding heavier than recommended rates. We've seen this in our recent on-farm trials. Increasing seeding rates by 50% or more per acre costs more initially, but creates a stand with much less room for weeds to grow.

As you begin the conversion, consider using annual grazing crops as well. Such things as brassicas, annual ryegrass, and sudangrasses and millets work well and can provide transitional grazing until perennial pastures are ready. Even corn can be successfully grazed!

Making the transition.

One of Paul's most important pieces of advice is to keep your milk production up during the transition. It's very common for milk production to drop when you're switching forage sources and routines, but the transition will be much smoother if you don't let this happen. Although grass-based dairying can and often does reduce production costs, you will have extra expenses those first few years. You'll need that income to pay for new fencing, watering systems and, of course, for mistakes!

If he had it to do over again, Paul would make a more gradual transition. Don't take your herd completely off your current feed system. You can feed hay, grain, and even TMR on pasture. Or you can pasture during the day and feed them in the barn overnight. The important thing is to keep dry matter intake up. That'll go a long way toward keeping milk production where it needs to be and smoothing the transition.

An unexpected source of income that Paul discovered early on is selling replacement heifers. Many graziers find that animal health is improved in a pastured herd and cow longevity increases. The yearly crop of heifers can either be used to expand the herd or can be sold off to provide extra cash. Reduced herd health bills add to this savings.

Many producers have looked into seasonal dairying. It has a lot of appeal in terms of shifting workloads and reducing production costs. Winter feeding of lactating animals is expensive. But in a lot of cases, synchronizing the herd hasn't been entirely successful and culling non-synchronous cows can be very expensive.

Paul has settled on a spring-fall calving system that seems to work well. He breeds for spring calving as much of the herd as possible. Those that fail to breed in the window are milked into the winter, bred again, and if successful, are carried over as dry cows through the following summer. This strategy has reduced his reproductive culls to less than 10% without using setup shots, ovasynch, or expensive vet calls.

Fall calving provides a more consistent income and takes advantage of relatively high milk prices that sometimes occur in winter. Paul's fall calving group is used as a cleanup/follower herd behind the spring freshening herd, saving him the cost of clipping pastures.

Putting it all together.

So you have a plan for your herd and you have your pastures ready. Now what? How do you decide how much to give them and for how long? Most dairy graziers move their herds to new pasture after each milking, or at least once a day. That keeps quality and intake at their best.

To determine how much pasture you need, we have another rule-of-thumb. For an average established pasture sward, we can think about 400 or so pounds of dry matter per inch of height. We can also think about providing an average of 3% of body weight in dry weight of forage per head per day.

So, let's say we have an acre of well-managed pasture, approximately 8 inches in height. To ensure good regrowth, we'll only want to take off the top 4 inches (that's the best quality stuff anyway). That's about 1600 pounds of dry matter ($400 \times 4 = 1600$). If we have a herd of sixty 1300 pound Holsteins, we need 2340 lb dry matter/day ($60 \times 1300 \times 0.03 = 2340$). That means our acre of pasture should last us somewhere between 12 and 24 hours. So, each time your herd is milked, they'll need to go to a fresh pasture. Bring in the dry cows and heifers to even things out and take the pasture down another inch or two.

Sounds simple enough, doesn't it? It is and it isn't. As Paul says: Open up your blinders; Know your limitations; and Don't go faster than you gain knowledge. In other words, take it slow, be creative, be flexible, be ready to change. And seek help from other graziers. Join a network. There are a lot of folks out there ready and willing to help. Happy grazing!

Laura Paine is University of Wisconsin-Extension Crops and Soils Agent for Columbia County and has worked with grazing networks and done on-farm grazing research for 10 years with the University of Wisconsin-Madison. She can be contacted at: PO Box 567, Portage, WI 53901, 608/742-9682, laura.paine@ces.uwex.edu. She's always interested in feedback and ideas for future articles.

Paul and Cyd Bickford operate Bickford Farms near Ridgeway in Iowa County. They milk over 600 cows on 1700 acres of pasture and cropland. Paul can be reached at bickfarm@mhtc.net or 608/924-6221.
