

**Post Rock Extension District Column**

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## **Getting the Most Out of Your Ground—Utilizing Cover Crops to Extend the Grazing Season**

With wheat harvest nearing completion, it is only natural for all of us to let our minds wonder and start thinking about the next pressing task. While I am sure many have considered this and some may have put it in motion, I would ask you to let the planting of a cover crop for forage be that next task on your mind. Alternative grazing methods are not only meant to create a new avenue of profitability, but also open our operations to new practices (does the use of cover crops allow for expansion?) as well as building a more sustainable production system.

### **Build Your Operation from the Ground Up**

Cover crops allow us to break up ground that can often become compacted through many seasons of farming while also preventing erosion in areas that are more apt to run into that issue. Furthermore, the added biomass produced by these leafy forages is put right back into the ground, increasing the nutrient load that can be received by the next crop planted. In the long run, fertilizer costs are also significantly decreased. This does not mean that the ground isn't being fertilized. If the field is grazed in a rotational system and cattle graze one small patch at a time, the nutrients they gain from the new forage are left in the same area where they are grazing. When the forage is grazed down to the appropriate level, cattle are moved and introduced to the next paddock where the same process takes place. This allows the livestock to fertilize your field while using resources already available.

### **Grow Your Business**

There are many different types of cover crops that can be used for grazing, and I will give an overview of that later. However, for now I will focus on a mixture of brassicas and annual ryegrass, and the tons of grazeable forage this mixture produces. This mixture can be planted directly following the wheat harvest and will require about an average of 75 days to reach grazing capability (Lindquist). Thus, it will be ready just in time for cows to be turned out post-weaning.

Often times, females have worked up the appropriate body condition and reserves to last a while without much supplementation following weaning. Unfortunately, forage quality and sometimes quantity has typically been depleted by this time of year and hay starts to be fed accordingly. Not only does a cover crop allow producers to delay feeding hay and the brood cows to remain in their instinctive grazing state, it also carries a much denser forage load—meaning that more cattle can graze a smaller piece of land than they could on traditional forage. In the brassica/rye grass mixture, we can expect nearly 2 tons of dry matter per acre. The dry matter requirement of a 1,200-pound dry cow for 5 months is approximately 2 tons. All in all,

the stocking rate on a field planted to this mixture would be a little higher than 1 acre/cow for the winter season.

### **Boosting Your Bottom Line**

How can cover crops provide a more profitable agricultural business? With a live root in the ground, cover crops reduce the fallow season and, in turn, save money on herbicides and pesticides that would typically be applied when the field is dormant. In addition, fertilizer cost can be greatly reduced. There have been reports that due to this increase in soil quality and the use of rotational grazing, fertilizer costs have decreased up to nearly 70-80% for producers who have been planting cover crops for 10 years or longer (Smith). Furthermore, grazing these crops heavily allows for your field to help you in producing another commodity, rather than just sitting empty for the time being. Finally, getting back to our example of brassicas and ryegrass, Eric Mousel of University of Minnesota Extension calculated the winter cow cost in this scenario to be about \$26/head/month. Even with a potential increase due to regional and managerial variance, this remains a very competitive figure through an awfully challenging time of year.

### **Difference in Cover Crops**

There are many options to be weighed when considering the right cover crops to plant. For example, brassica species such as turnips, radishes, and peas are very cold tolerant and leave little field waste. They also offer the least percentage of dry matter and are lower in digestibility. Triticale, rye and other cereal grains have a lower moisture content and a more desirable C: N ratio for digestion, but also require greater field residue management and don't rival the cold tolerance of brassicas. Summer annuals like millets and sudangrass are great for yield, with similar digestibility to cereal grains, but are lower still in regards to cold tolerance and vary in field waste. (Mousel)

Similar to native forages, a mixture of several cover crops typically works best to bring forth the strengths of different species. The effectiveness of these forages depends on the planting season and time of year when they will be utilized.

### **Sources**

- Mousel, Eric “Incorporating Cover Crops into Forage Systems” University of Minnesota North Central Research & Outreach Center
- Lindquist, Jerry “Fall Cover Crop Grazing Basics” Michigan State University Extension [msue.anr.msu.edu](http://msue.anr.msu.edu)
- Smith, Troy “Cover Crops and Cattle” [thecattlenetwork.com](http://thecattlenetwork.com)

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