

Combining Grain and Cattle

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My wife Diane and I farm with our two children along the Battle River Valley. We have approximately 2000 cultivated acres and 500 acres of native pasture and so called waste land. Approximately 300 – 400 acres are in forage at any given time. While we were initially a grain farm with a few cows, we used the BSE crisis as a time to build our cattle enterprise.

Over the last decade I worked with the SSCA in NW Saskatchewan. It was through this position that I was continually disseminating research information and ideas and how they could relate to the farm. From 2001 to 2003 I also had the privilege of sitting on the Western Forage/Beef Group at Lacombe, AB. The group consists of scientists, extension specialists and an economist dedicated to foraged-based beef production in the Parkland vegetation zone of the Canadian prairies. It was at this time I saw the potential for combining grain and cattle.

Research at Lacombe and other research locations have found tremendous responses in beef production through rotational grazing and fertilizing high end pastures. In some cases there have been rates of gain similar to feedlot conditions.

The inclusion of alfalfa or alfalfa/grass mixtures in crop rotations has many benefits, including increased soil organic matter. Alfalfa also improves soil physical properties, reduces soil erosion, suppresses weeds and provides a disruption in plant disease cycles. Forage legumes have a unique ability to fix their own nitrogen, significantly reducing the reliance on non-renewable energy to produce nitrogen fertilizer. Not only do grain crops yield more after forages, but also the rotational benefit of field peas is greater where alfalfa has been included previously in the crop rotation.

Research by Martin Entz has shown that it takes only two to three years to obtain optimum N accumulation and weed suppression benefits from an alfalfa stand. But the two main factors that have discouraged producers from cycling forages through their rotation more frequently have been: 1) problems establishing the forage and 2) problems terminating the perennial forage.

On our farm we have been direct seeding for over 10 years. I have seeded alfalfa and alfalfa/brome grass using direct seeding with a high level of success. Initially we established our pure alfalfa stands in combination with Clearfield® canola. Although we had very high levels of establishment, we had a problem at harvest time with the canola swath smothering out the alfalfa when it lay on the field more than two weeks. The following year we could see windrows up and down the field especially under heavy swath conditions. Straight cutting would eliminate most of these problems, but some green alfalfa stems and leaves will come into the combine.

Today we typically seed the forage without a cover crop. We will complete a burnoff and seed the forage directly into cereal stubble. Depending on the forage combination, we may or may not use herbicide. Typically we take a cut in early August to remove volunteer competition and give the plants an opportunity to replenish their roots prior to winter. Our forage blends contain a high percentage of alfalfa because our goal is to maximize our N-fixation and weed

suppression through the rotation. Depending on the situation, we usually keep the forage in for 3 or 4 years.

We use herbicides to terminate forage stands. We take a cut in late June and let the plants regrow. In early August we spray 2-litre/ac of glyphosate tank mixed with some 2-4D or banvel. The fields are then ready to seed into either winter wheat by late August or annual crops the following spring.

Usually we keep our cattle on pasture or stubble year round. This allows us to spread our manure pack around our land base. We use some swath grazing, but mostly we are whole-bale feeding. Our bales are wrapped with mesh wrap. This allows us to put a week's worth of bales out for our cattle without the need to fence bales away from them. As long as bales are opened up daily, the cows do not attack the bales that still have mesh on them. We then use a bale feeder to allow the cow's access to sufficient feed while forcing them to clean up the areas where the whole bales have been fed. This also minimizes the amount of straw required. Our cows either bed on areas from the whole bales or on fresh snow.

Presently we are trying to move toward grazing more than 8 months of the year. By stockpiling some of our forage land we hope to extend our grazing period. Forage-finished beef is also another intriguing opportunity we are currently exploring.

The future of agriculture is always a hot topic, but for us the upside potential in this industry far outweighs the downside. We were able to take advantage of an industry set-back by exploring other possibilities and accessing some excellent resource information (workshops, industry experts, and so on). The key is recognizing that "in the middle of every difficulty lies an opportunity."