## Cover crops are designed to extend grazing PART 1

It took several years for Graeme Finn to uncover the combination of plant species which would successfully cut the cost of his winter feed.

He had studied livestock management, forage agronomy and ag business, along with cell and rotational grazing, at CB Alexandra Agriculture College in New South Wales.

But his education was to continue in Canada as the Finn family tried various plant combinations through the years to reduce costs to improve soil health and also create a higher quality grazing.

"Initially, I joined Foothills Forage and Grazing meetings where cattle producers Doug Wray, Jim Bauer and others shared their expertise about what they had learned around grazing livestock in Alberta year around," said Finn. "I decided to use some of the same crop species used in Australia like turnips, forage rapes and Italian rye grasses to add to his oats and triticale swath combo."

In 2007 Finn introduced Winfred Forage Rape to Canada. The turnip x kale hybrid out of New Zealand was the start to using multi species in annual grazing on his place.

"We initially brought nine bags of Forage Rape up to Canada from NZ and that was the start of our program to try to get more nutrient dense forage and reduce feeding inputs," he said. "By 2010 as other producers began to increase the number of species in their forage crops, I started to bring in mostly Brassica seeds from NZ." "The internet opened more farming

ideas and opportunities," said Finn. "We were doing things a little different then, which made you someone to talk about at the local coffee shop or get a call from someone that wanted more information about what we were doing."

In 2013 to about 2015, early adopters were beginning to use up to 15-20 species in their cover crops, which Finn started to do, adding to the original six to seven species. Years later, he realized he was spending more money instead of less and some of the widely used plants varieties couldn't withstand the pressure and competition from the stronger plants in the blends and were unable to compete. But the cover crop business was bursting at the seams as more prairie producers saw cover



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crops as a means to improve their soil health and extend grazing into the fall season.

"We were chasing after soil health and we started seeing more worms in the soil and that the soil was getting more viable," said Finn. "We didn't harrow after the swath grazing before seeding, but halfway through the summer we recognized that the biology was absorbing all of our litter back into the soil.

"We also saw other progress in our cover crop program when our custom seeding guy noticed the RPM's weren't as high when seeding because of the changes in the soil type. Another side benefit was our fertilizer bill started to drop and we hadn't given the cattle enough credit to achieving this. At this point all the emphasis was put on cover crops, which turned out to be misleading." After being on the same soil for over 20 years, Finn made a change to quit using fertilizer and after that, he recorded decent crops for the next three years. But the 2018 crop was only average and things went further south in 2019. Perplexed by the quantity and quality of multi-species cover crops, Finn applied 57 pounds of nitrogen to give the crop a boost. Within 11 days the crop recovered. Finn said the measure of his achievement was using less fertilizer which is in line with some of the new "political" pushes towards reducing fertilizer usage. He continues to soil test every two years and will not stop using some amount of fertilizer in his program, which to date in only N.

"There are too many companies around now saying 'you don't need fertiliser with our cover crops' which can lead to a wreck on a grazing operation. We have achieved a lot over the years, but we can always do more. I use 50 pounds of nitrogen to get the crops started and I've reduced the number of species that I use in the cover crop blends, which is a big difference from just a few years ago. I think that if we use the 'KISS' principle we can't go too far wrong."

For several years Finn continued to use and import annual forage seeds from New Zealand, Australia and the EU. As more and more producers clamored for seed he decided to add a seed import business to his cattle operation. It made perfect sense. In 2015 he put up his shingle for Union Forage and today with the help from a number of partners with grazing expertise and few followers UF has grown out of the soil.

"Some producers seed in May and graze in June /July or September for stock-piled fall grazing. I seed in June and lay it down in September for winter swath grazing," said Finn. "Cattle guys are trying to get cattle back on the grain land soil again so they'll use summer grazing that will have something like an ultimate mix or dryland blend or re-graze blends for cropping rotations so we can get the benefits of the livestock back on the soil. The whole objective is to grow the best feed possible while still improving soil health.

"I've gone full circle from where we first began the search for the perfect combination for a cover crop blend. It all depends on the soil and the expected outcomes. We have to look and ask with open eyes.

"I've gone back to Forage Rapes, turnips, triticale, peas and oats for my winter grazing. In the summer you can use more species because of multiple grazing use. For instance, turnips, sunflower, forage rape, hairy vetch, clovers, chicory, plantain,

millet and sorghum combinations work well in most parts of Canada and can be used for summer multiple grazing or stockpiled forage." In the beginning, producers blended their forage species on the farm but more customers requested custom blending. So, in 2017 Union Forage bought a 17,000 square foot facility in Calgary and equipped it with blenders and bagging equipment. They've had growth of around 22% a year and this year are in the 30s. The company stocks both perennials forage and annual cover crop seed and blends them in the warehouse. "I have to give a shout out to our general manager Jeff Barker and warehouse manager Sean McCain and the crew," said Finn. "Alongside the domestic market the export side for both perennials and some of our annual cover crops has grown rapidly. "Union Forage ships seed to countries such as China, Ireland, UK, the U.S. and New Zealand, which has become one-third of our business. Glenview Sainfoin, which was developed at Lethbridge by Dr. Surya Acharya, is being exported around the world and we've had a recent inquiry about it from Dubai."

While cover crop users still use a combination of species to meet their needs, they have shaved back the number of cover crop plants from as high as 15-20 species down to some as few as three and four species in some blends. As always, the species mix depends on the goal.

"One thing to keep in mind," Finn says. "Cover crops will never replace a good grass and legume pasture stand."

## BY BONNIE WARNYCA

Part 2 next issue – The dollars and sense of cover crops