Fall 2021 **THINK GREEN!** Newsletter

Ontario Forage Council

# Forage Focus 2021

## FREE Webinars
## 12-1pm daily

**November 30 - Dr. Renato Schmidt - Minimize losses to get the most out of your silage**

**December 1 - Anita Heeg - Understanding your forage analysis**

**December 2 - Dr. Kim Cassida - Alfalfa quality and lessons from forage trials**

**For tickets: https://events.eventzilla.net/e/forage-focus-2021-2138832593**

## In this Issue….



Canada Post Agreement# 40949041

# A Message from the President Terry Nuhn

What a fantastic year for forages in most of Southern and Eastern Ontario this past season. The high humidity and frequent rain made for exceptional growing conditions. Most livestock producers are reporting above average forage inventories with silos, bunks, baleage and dry hay inventory all in good supply. There were many challenges putting up feed in 2021, but we have much to be thankful for in the Southern parts of the province from the high yields we experienced.

Unfortunately, our friends in Northwestern Ontario and Western Canada have experienced the opposite growing conditions. These regions have been very hard hit by the drought and extended heat wave this past season. Feed and pasture inventories are very low. I have received many calls from livestock producers in these regions looking for advice on putting up alternative feeds and forages to survive the winter. It is a very sad situation for many of these family farms and ranches that have to make tough decisions with regards to liquidating herds and losing years of breeding and genetics.

This is a good time to see the value in having ample forage inventories as an important part of all livestock operations. Extreme weather conditions can happen at any time and will continue to happen. You want to make sure you are in the best possible position to work through it. Forage inventories need to be valued and managed like any other commodity. You should always strive to produce the highest yields and feed quality possible.

The OFC will be hosting our popular Forage Focus by webinar again this fall. We are very pleased to offer an exciting line-up of speakers for the upcoming session. Please stay in touch with the OFC for registration details.

Be sure to check out the Ontario Hay Listings website and the new Ontario Forage Network websites. There is great information available for all producers as we work our way through the pandemic.

I hope everyone has an excellent fall harvest! Stay safe and stay healthy.

Terry Nuhn
President, OFC

## Attention BEEF Producers!!

The Beef Farmers of Ontario, Mapleseed, and the Ontario Forage Council, invite you to nominate a deserving producer for the **Mapleseed Pasture Award**. The Mapleseed Pasture Awards are also a way of recognizing producers who implement pasture management strategies that maximize production per acre.

Prizes include; a cash award of $250 to the winner, an invition to share a presentation about their operation at the BFO AGM, a 25kg bag of their choice of a Mapleseed Forage Mix.

Beef Application Deadline: **November 30, 2020**

## Forage Information Resources:

Ontario Forage Council https://onforagenetwork.ca/ontario-forage-council/
Ontario Hay Listings http://ontariohaylistings.ca
Beef Cattle Research Council http://www.beefresearch.ca
Forage U-Pick https://upick.beefresearch.ca
Field Crop News http://fieldcropnews.com
Forages and Pastures - OMAFRA http://www.omafra.gov.on.ca/english/crops/field/forages.html
Canadian Forage and Grassland Association http://www.canadianfga.com
Forage Beef http://www.foragebeef.ca/app33/foragebeef/index_body.jsp
Midwest Cover Crop Tool https://mccc.msu.edu/covercroptool/

# OFC Manager's Report

By Ray Robertson-Manager, Ontario Forage Council

One year has now passed since my last Fall Newsletter was printed, and wow – time has flown. Covid 19 is still with us, but we have certainly witnessed a major improvement in our ability to communicate a little more freely, as more people have been vaccinated. Realizing it will be with us for some time, we trust that progress will continue, and we can get back to some real live events. From a conference perspective, the virtual activities have served us reasonably well, but it appears that most producers are anxious to attend more events in person. The upcoming Ontario Forage Focus Conference is planned for November 30, December 1 & 2, 2021, and the Profitable Pastures Conference is scheduled for March 8, 9 & 10, 2022, and will continue to be live streamed this time.

A favourite event for many producers has been the Ontario Forage Expo, and it has been cancelled in both 2020 and 2021. We are hopeful in bringing it back for July 2022, so please stay tuned.

The Ontario Hay Marketing Forum continues to be an important element of OFC. They have often been described as the "All Star Team" within the forage industry. They are a highly reputable group and has proven to be a good marketing arm for forages in Ontario and beyond. The Ontario Hay Marketing Forum is the first entity we think of when referring producers to a reputable hay supplier. It can be an excellent marketing tool, that gives you constant exposure to a broad clientele and at a reasonable price. If you are in need of hay or straw for your livestock, you can check out the options available on the following link. https://onforagenetwork.ca/ontario-forage-council/ontario-hay-marketing-forum/

As most of our readers are aware, North Western Ontario producers and the Western provinces have been suffering from major drought and hay shortage. We have been assisting in connecting the dots, by providing the hay marketing connections, to help the coordinators in getting the hay to North Western Ontario. We are advised that program is going very well. I want to thank the coordinators and local producers for their efforts in supporting those recipient producers, who are experiencing a severe hay shortage this year.

OFC has joined our Eastern Canadian colleagues in Quebec and Atlantic Canada to expand the reach of the Forage U-Pick tool from coast to coast. The planning committee is in place, so stay tuned for updates. This initiative will not only result in a comprehensive forage selection tool, customizable by the producer, but is also an excellent opportunity to connect with forage councils across the country.

OFC launched our new web site earlier this year. It is more inclusive and recognized as part of the forage network. I encourage you to check it out. www.ontariofragecouncil.com

OFC is an active member of the Canadian Forage & Grassland Association (CFGA) and is currently in progress of planning to participate in a Grazing Mentorship Program in conjunction with the CFGA. The program takes a collaborative approach to climate change mitigation and soil health. This program is still in the development stages, but we will soon be ready to release the details on how you can participate. It's truly an exciting time for the forage industry when we talk about soil health, carbon sequestration and many of the natural qualities it contributes to those areas.

We look forward to communicating with our producers and the broader industry as we are able, considering the many challenges we have faced. Your support and patience have been truly appreciated over the past 19 months and we look forward connecting with many of you in the coming months.

Ray Robertson

Manager, OFC

# Guardians of the Grasslands
## Visit the website and watch the documentary

*"Sometimes what you thought was the problem, is really the solution"* - -Guardians of the Grasslands

The Story Broker Media House has released its award-winning short documentary Guardians of the Grasslands, which is now available to the public after making the rounds at many prestigious film festivals across Canada. Guardians of the Grasslands is a documentary discussing the threats facing Canada's native prairies, and the seemingly unlikely solution.

Unknown to many Canadians, one of the world's most endangered ecosystem lies not far off in a different continent, nor deep underwater, but right here in our backyard. The Canadian native grassland is critically endangered, having already lost 74 per cent of its historic range.

This loss is mostly due to conversion, cultivation and other land uses. However, there is one form of land use that not only protects our native grasslands, but also enhances them: cattle grazing.

For thousands of years, the Prairies relied on herds of bison to thin out grass and fertilize the soil. In the years since their disappearance, cattle have now taken over that role. Guardians of the Grasslands discusses the role that ranchers and their herds have in sustaining the grasslands.

The Nature Conservancy of Canada (NCC) is proud to have participated in the making of Guardians of the Grasslands, and we are proud to have worked with many ranching families across Alberta and the rest of Canada. Most of Alberta's prairies are under private ownership, and we acknowledge the unique role that landowners hold in conserving heritage land for future generations.

To get involved in prairie conservation, there are numerous paths you can take. Many organizations such as NCC rely heavily on volunteer work. Both fundraising endeavours and hands-on conservation work, such as such as weed pulling, fence removal and other maintenance tasks, are crucial to conservation efforts. Due to COVID-19, many of these events have been put on hold, but spreading awareness of issues faced by our grasslands is still an important step in making sure our inland sea of grass remains intact for generations to come.

*Guardians of the grasslands*. NCC: Where We Work - Alberta. (n.d.). Retrieved September 10, 2021, from https://www.natureconservancy.ca/en/where-we-work/alberta/stories/guardians-of-the-grasslands.html.

# Summary of Results to date – Elora Forage Fertility Trial

**Dr. Kim Schneider, Assistant Professor in Forage and Service crops, recently presented her initial results (at the Virtual Beef conference in August) of a Forage Fertility Trial that is being conducted at the University of Guelph's Elora Research Station.**

### Background Information

Soil fertility is a critical component of achieving desired crop yield outcomes; however, less attention is typically given to forage fertility than other annual cash crops. There are anecdotal reports of producers applying 100 lbs/acre of a 19-19-19 (N-P-K) fertilizer annually to their forages and it is unclear whether this is beneficial. In addition, despite the introduction of new forage plant varieties, including grasses such as Festulolium species (a cross between a ryegrass and a fescue), forage fertility recommendations in Ontario have not been updated since the 1980's.

### Research Objectives

The objective of this trial is to determine the effect of fertility management on the yield and quality of 19 different forage mixtures available on the Ontario market over a three-year period. These treatments ranged from pure grasses to pure legumes and included common hay and pasture mixes available on the market. **The three fertility treatments to be tested include: 1) zero fertility control, 2) a one-time application/yr of a 19-19-19 (N-P-K) fertilizer, or 3) fertilize as needed according to OMAFRA guidelines based** on soil testing.

### Methodology

In a plot trial with six replicates, first, second and third cut yield was measured using a haldrup forage harvester. Forage quality analysis was analysed in year 1. The botanical composition was determined at first cut in each year.

### Initial Results

There was not a significant interaction between the fertility treatment and the different plant entries used, so the results were analysed considering the impact of fertility and plant species on yield separately. **In year 1 2020 growing season, the fertilize as needed according to OMAFRA recommendations treatment yielded the highest and was significantly greater than the zero fertility control. The 100 lbs/acre of 19-19-19 fertilizer treatment yielded an in between amount technically not significantly different from either the**

**control or the fertilize as needed treatment.**

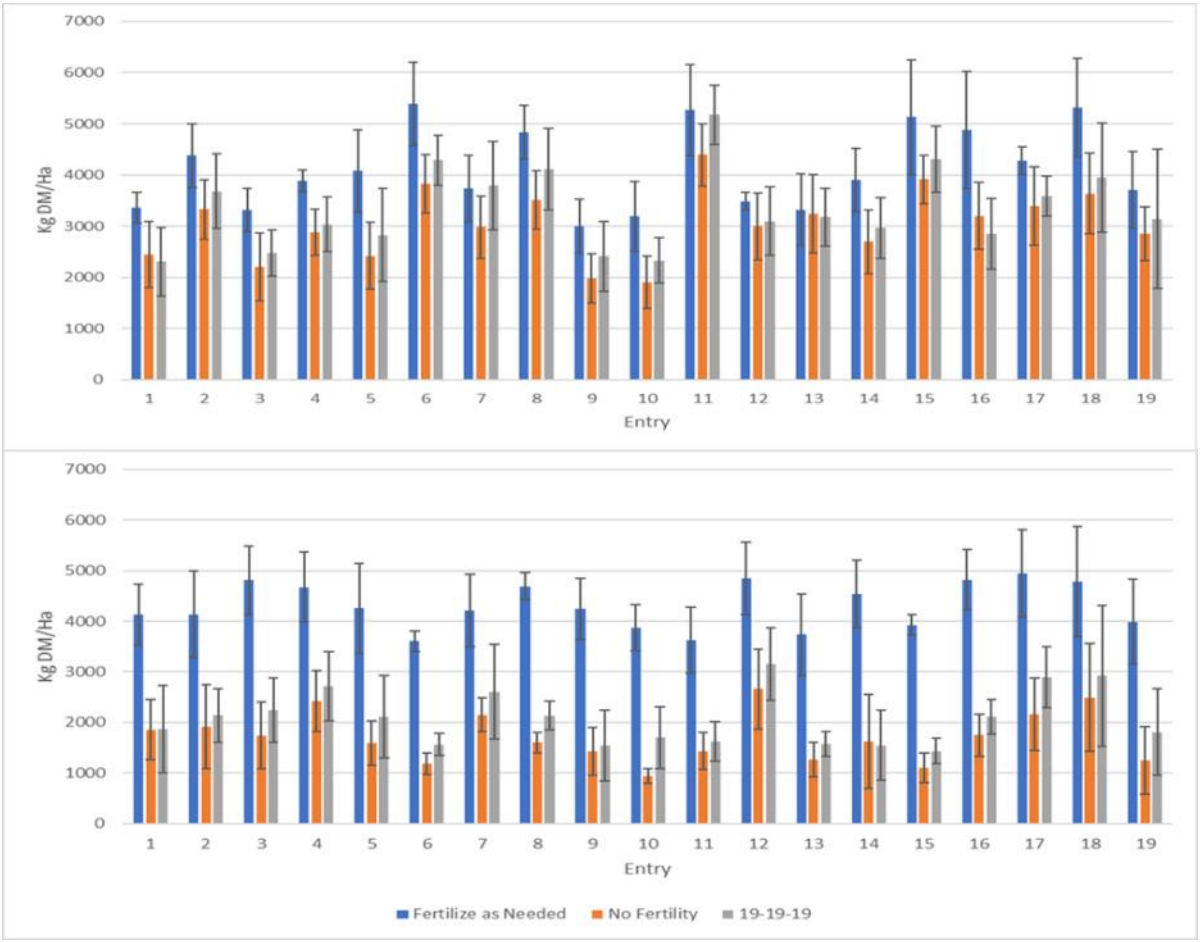
**So far in 2021 we have only looked at first cut data so far, the results indicate that the impact of fertility on yields has become greater with time.** The fertilize as needed treatment clearly yielded higher than the other two treatments and the 100 lb/acre treatment of 19-19-19 fertilizer was not much different from the zero fertility control. In the first year of production (2020), the festulolium grasses were the highest yielding, closely followed by Italian ryegrass, while in 2021, the grass mixtures (typically containing tall fescue, perennial ryegrass, orchardgrass, and sometimes festulolium, timothy and Kentucky bluegrass) had the highest yields. In the first year, a mixture containing red clover as the legume anchor outperformed alfalfa containing mixtures, but this trend did not appear to be evident in the second year of production.

Forage fertility treatment did not affect forage quality, but rather the species in the mixture was the driving effect. In general, mixtures containing timothy and meadow fescue had greater Relative Forage Quality (RFQ) indices, which is to be expected with these grasses. Not surprisingly, legume mixtures with alfalfa, red clover and white clover also produced good RFQ values and protein concentrations.

## Conclusions and Significance

For growing forage mixtures at Elora, which has low soil test potassium concentrations to start, the best fertility management regime in order to maximize yields was to soil test and fertilize according to OMAFRA recommendations. The transferability of our study to other sites will vary depending on starting soil fertility levels, thus **it is recommended to soil test your forage fields regularly to know your starting point**. This study also focused on harvested forages, which will differ from pasture sites, where much nutrient recycling occurs from manure going back onto the land.

This is a broad study which did not test many different fertility rates, but serves as a starting point to direct future research. Although it suggests following OMAFRA recommendations may maximize yields, the cost of production has not yet been determined. Including a legume in your forage mix would be a good way to cut down on your N fertility costs. Furthermore, these recommendations may still be able to be further refined. Dr. Schneider has established a new trial to look more specifically at phosphorus fertility in alfalfa, red clover and dominant forage grass species of Ontario to see if some species are more phosphorus efficient that others, which would potentially allow producers to apply less P,




Visit our website: onforagenet-work.ca to view the digital version to magnify the graph

First cut yield (kg DM $ha^{-1}$) data from 2020 (top) and 2021 (bottom) showing that the yield differences grew in one year from the fertilize as needed treatment compared to the no fertility and a light application of 19-19-19 (N-P-K) fertilizer.

# Looking to Make the Most of Forage Quality? Consider These Factors

Posted on September 14, 2021 by beefresearch5

Thank you to New Brunswick Cattle Producers and Les Producteurs de bovins du Québec for providing access to a French version of this blog post, available here.

Forage quality is an important factor to consider when feeding cattle. While this may seem obvious, maximizing forage quality is sometimes not the focus when management decisions are being made. Yet focusing on quality might enable producers to save costs by getting more out of the forage they have and reducing reliance on expensive concentrates and feed additives.

Forage quality and yield variations in a field depend on a variety of factors including the stage of maturity of the forage, growing conditions, species composition within the field and/or harvest timing decisions. Harvest considerations also include dry down time, or time laying in the windrow, which is impacted by chop length, the use of conditioners and swath width behind the mower. Post harvest management also affects forage quality and is impacted by decisions such as whether to wrap bales in plastic or not and how baled forage is stored. Being aware of these range of factors allows producers to make pre-harvest, harvest, and storage decisions that can optimize forage quality.

To maximize the use of available quality forage, an inventory and quality testing system should be implemented. Notes should be taken on fields which include information such as plant species, maturity at cutting, and age of field. This will allow baled forage to be grouped together based on the same cutting timing (1st, 2nd, 3rd, or 4th cut), forage that was cut and/or baled at a similar time, or that has a similar forage composition.

In addition, feed should be stored to allow access to any group at any time, taking into consideration facilities and limitations. Forage quality testing each feed group provides a better understanding of what quality of feed is on-farm and whether supplies are adequate to meet the herd's requirements for the year. Early assessment allows time to plan for shortfalls in yield or quality. Testing can begin once stored forage has stabilized, prior to the sale or purchase of forage, or prior to feeding out to animals. Ensure samples are sent to the lab to allow enough time to get results back so that they can inform ration decisions.

Once forage quality test results are received, they can be provided to a nutritionist or producers can use BCRC's Feed Value Estimator tool to identify how well the tested forage will meet the requirements of different classes of cattle in their herd and their production demands. With this information, producers can better match their forage groups to the production cycle of their animals and more accurately identify the amount of concentrates and feed additives required to meet nutritional needs not fulfilled by forages in the ration.

The following producers have found ways to optimize their feed harvest, inventory, and storage in order to place priority on feed testing and ration development.

**Kintail Farms**

**Brook Village, Nova Scotia**

Andrew MacLennan and Krista MacGillivray, of Kintail Farms, run a beef and sheep operation near Brook Village, Nova Scotia. By focusing on their forage quality and feed management, Kintail Farms has grown from four cows and 50-60 ewes a few years ago to currently 25 cows and 200 ewes. Some of the changes implemented include harvesting as close as possible to plant boot stage to target higher quality forage and the creation of an inventory and quality testing system for their feed. A tower silo is used to store the highest quality forage while the remaining forages are turned into baleage, chopped silage, and dry hay.

Wrapped forages are stored to allow for ease of access as well as grouped together based on when they were harvested and their forage composition. These groups are stored separate from one another to ensure that mixing of different groups does not happen and to reduce the risk of confusion when pulling from different feeds when creating rations.

They test all of their forage to determine feed quality and then use this information to build rations for their herd, taking into account the production cycle of the animals. By pulling from their different on-farm produced feed quality groups, they can reduce their reliance on off-farm feed sources and supplements. The forages are supplemented by soybean meal and occasionally whole barley or whole corn depending on needs and market prices, however they've been able to reduce the amounts of supplements necessary to meet nutritional demands. The changes to their cutting and forage management system have allowed them to reduce the amount of time it takes for their calves to reach slaughter weight by three to five

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# ON Farm wins UN Award

By Jackie Clark Staff Writer Farms.com

**Woolley's Lamb integrates livestock with orchards and silvopasture for biodiverse food and fiber production**

An innovative, integrated livestock business in Norfolk County was selected as one of 50 winners of the United Nations Good Food For All Competition in the Best Small Business category.

Selected from a pool of 2000 applicants from around the world, Woolley's Lamb was one of nine winners from the North and Latin American region.

The award honours small and medium enterprises that are contributing to feeding the world in a more healthy, sustainable and equitable way.

Woolley's Lamb staff were excited and honoured to be among the winners, Carrie Woolley told Farms.com. She's the livestock operations manager for the business.

The self-nomination process involved "quite a lengthy application," she said. Applications included written, photo and video submissions.

"Woolley's Lamb is a part of a larger farm operation, which is Schuyler Farms Ltd., and we're a mixed farm operation growing corn, soybeans, apples, and sour cherries, and now the lambs," she explained. "Eight years ago, we got the idea to integrate the sheep into the orchard and that's where it all started and has really grown from there."

Woolley and her husband now raise the lambs using orchard grazing and silvopasture, which both involve raising livestock and trees in a mutually beneficial way.

"We can produce meat and fibre and timber and fruit all on one piece of land," Woolley said.

She's excited for the future of small- and medium-sized creative agricultural enterprises, she explained.

"There are some amazing operations out there," she said. "What excites me is the collaboration and integrating the livestock in with the orchards and the cash crops, and just trying to do things differently and better … There's so much opportunity out there, I look at all the crop residues from the horticulture industry and the cash crop industry and there's huge potential."

Being recognized alongside innovative businesses from around the world was a humbling experience, she added.

"The ideas that those other businesses have come up with, and the situations that some of those businesses are dealing with – I was blown away," Woolley said.

For example, ColdHubs is a business from Nigeria that builds solar powered walk-in cold rooms to store produce and prevent spoilage. The United Nations Food Systems Summit helps to showcase what innovative solutions are possible, even in extremely difficult conditions.

"Those are the people that are going to change communities. It was pretty neat," Woolley said. "We definitely need to help small and medium sized businesses grow and support them, because they give back to communities, and I think that's going to be really critical here going forward for the planet."

Woolley's Lamb hopes to continue to expand and improve, she explained. They are aiming for more productivity in the silvopastures with a focus on nature and native biodiversity, and potentially incorporating other livestock like geese and pigs.

"It's taken us a long time to grow it's business and we're getting close to that stage where we're going to be happy… there's lots of stuff that we're playing around with. There's always more," Woolley said.

Clark, J. (2021, July 29). *Ont. farm wins Un award*. Farms.com. https://www.farms.com/ag-industry-news/ont-farm-wins-un-award-993.aspx.

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months for the direct-to-consumer market. This has greatly reduced feed and management costs.

**Gilchrist Farms**

**Lucknow, Ontario**

Brad and Kristie Gilchrist of Gilchrist Farms near Lucknow, Ontario run a cash crop and purebred Angus cow-calf operation as well as a winter bull development centre. Their focus on feed management is highlighted by the many different feed options produced on–farm, which are grown to target specific quality needs and provide a range of options when making rations for their herd. All feed is tested for nutritional quality and each forage is identified, inventoried, and stored separately.

Gilchrist Farms utilizes pasture, haylage, wrapped dry hay, corn silage stored in bunker silos, and other feed ingredients from on-farm and off-farm sources. Some forage fields are managed specifically to target higher protein requirements of their more nutritionally demanding animals, such as the bulls at the development centre, and are cut based on stage of maturity. Other fields are cut to target yield with this feed used for animals with lower nutritional needs. Feed storage is important as well with all feed being either wrapped, placed in bunker silos, or stored inside to maintain quality.

They maintain a close working partnership with their feed sales representative and animal nutritionist. The herd is split into different groups based on production type, with diets created to cater to specific nutritional needs in each phase of production. Rations are modified further based on animal performance and changes in air temperature throughout the year. Their bulls are weighed every twenty-eight days with daily and average gains tracked to ensure animals are meeting targets.

At Gilchrist Farms, on-farm production of feed and intensive management of diets allows them to have greater control of their herd's diets and allows them to maintain production targets while reducing costs.

This blog post was developed in collaboration and with the expertise of staff at Perennia Food and Agriculture, based in Nova Scotia.

beefresearch5, & beefresearch5. (n.d.). *Looking to make the most of forage quality? Consider these factors.* BeefResearch.ca. Retrieved September 20, 2021, from https://www.beefresearch.ca/blog/looking-to-make-the-most-of-forage-quality-consider-these-factors/.

**The Ontario Forage Council thanks the Ontario Ministry of Agriculture, Food and Rural Affairs for their continued support!**



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