

Hay & Pasture Rejuvenation

Jay Lennox, CCA-ON, 4R-NMS, CCS

Spring-like weather may have you thinking about your hayfields and grazing paddocks. It is a good time to get out and assess your populations and winter survival. Just like any other field crop, fertility, weed control, and stand count are factors that need to be considered to grow the best hay or pasture crop. As hay and pasture crops age, their stand count generally decreases every year, so often it is a good idea to consider the next steps for the crop.

One good strategy for improving the stand of hay or pastures is through frost seeding in the spring. It is effective in thickening the stand; however, it is not a cure for an overworked crop that has not been well maintained. When frost seeding, we can't expect immediate returns on the investment, the new seed won't contribute until its second year once it is established. Frost seeding uses the freeze/thaw action of the soil to get seed into the ground and in contact with the soil for germination. Dragging a harrow following the frost seeding can also aid in improving seed to soil contact.

In some cases, a complete rejuvenation of hay or pasture crop is required to achieve the desired crop stand. Similar to any cropping system, rotation of crops has many benefits, and starting fresh with your hay or pasture field just makes sense. Giving the field a break for a year from hay or pasture can have many benefits including breaking the parasite cycle, as well as various weed species.

When seeding new hay or pasture there are some important factors to keep in mind to maximize your success. Firstly, a well-prepared seedbed will maximize seed and soil contact to get high levels of germination. Second, a well-balanced fertility plan is necessary to get the crop off to a good start; things to consider here are manure applications and supplemental fertilizers based on recommendations we can pull from soil sample results. Hay or pastures can be seeded directly or seeded with a nurse crop such as oats or barley. A nurse crop helps to suppress weeds while also boosting yields in the year of establishment.

Keeping all these points in mind, the starting point with pasture or hayfield rejuvenation is assessment. I always like to assess the field in the fall to see how it is going into the winter. This often can indicate how the crop will respond in the spring. Also having soil samples taken every 3-4 years along with a balanced fertility plan is important to achieve the best crop possible. If you have further questions about your hay or pasture crop, please contact your NWC crop specialist today.

Bayer's Climate Fieldview - Free for 2021!

Luke Hartung, CCA-ON, 4R-NMS, CCS

For the past couple of seasons, NWC and a couple of local growers have been using Bayer's Climate Fieldview data collection program. This is an online app-based program, and traditionally there was a charge to using it. This year, the app is FREE, if you have a TSA number (if you've bought Roundup Ready seed in the past 5 years, you will have a TSA Number). Here is a quick overview of what the program is all about:

What:

- An online data collection app. For growers to make full use of it, you will need a smartphone/tablet, and a computer/laptop

How to use it:

- Growers need to 'draw' in their field maps
- Growers can use this program to help collect yield data, record plating/spraying/tillage applications, and make field notes.
- You can share your data with your NWC Crop Specialist. By doing so, it will allow us to make scouting notes/pics in your fields, which you will then see on your end.

Why use it:

- Even if you cannot collect yield data with your combine, it is an excellent tool to make scouting notes, record in-field applications, and interact with your NWC Crop Specialist

If you are interested to learn more about Climate Fieldview, or to sign-up for free, contact your NWC Crop Specialist.



Seed Pickup Day Winners

Thank you to all of our customers for taking delivery of their seed, fertilizer and other agronomy products ahead of the season! Congratulations to our winners!

Craftsman Tool Kit - Keith Weber

\$50 Tim Card - Dennis Burkhart

\$50 Tim Card - Vernal & Florence Martin

Thanks to Corteva™ for sponsoring our April edition of North Wellington Co-op's Agronomy News.

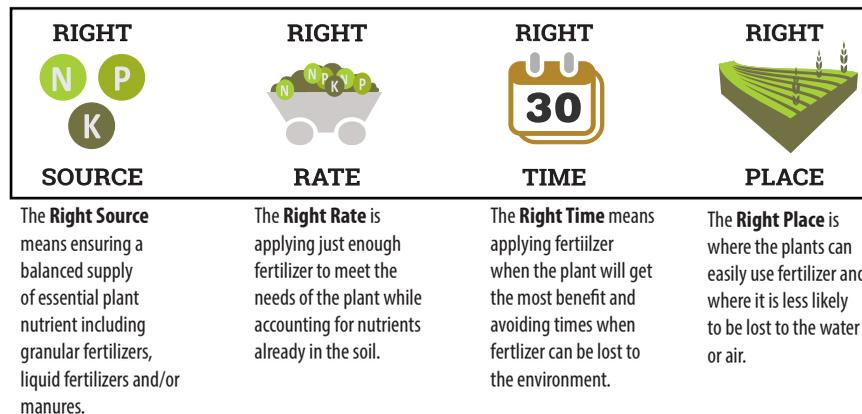


CORTEVA™
agriscience

What is 4R Nutrient Stewardship?

4R Nutrient Stewardship are based on good agronomics. The message behind the 4Rs is to work to optimize production and profitability for growers, while ensuring the future of the agricultural industry. Goals of the 4R program include:

- Optimize crop uptake of nutrients and minimize nutrient losses.
- Create long-term positive impacts on water bodies associated with ag production areas.
- Encourage sharing and documenting the most up-to-date information regarding responsible nutrient stewardship.
- Help the agricultural sector adapt to new research and technology in the area of nutrient stewardship.



Benefits of 4R for the Grower

- Implementing 4R Best Management Practices (BMPs) leads to more efficient input management, higher yields, and greater profit. This ensures you get the most out of each acre, increasing return on fertilizer dollars spent.
- 4R Nutrient Stewardship plans on-farm include integrated sets of best management practices that have been shown to reduce greenhouse gas (GHG) emissions by up to 35% and reduce phosphorus run-off by up to 60%.
- According to a grower survey, 70% of Canadian crop acres are operating under the basic principles of 4R Nutrient Stewardship
- 4R Nutrient Stewardship demonstrates economic, environmental, and socially responsible product use, earning the industry's freedom to operate.
- Canada's fertilizer industry believes that voluntary, industry-led initiatives are the best approach to showcase industry's actions towards increased crop nutrient uptake and reduced nutrient loss.

4R Retailer Certification Program

The 4R Nutrient Stewardship initiative represents the ag industry and stakeholders working together to set a base best practice in nutrient management. It aims to define what is needed to grow a high-yielding crop, while at the same time, taking into consideration the environment and land stewardship. The program was formalized in 2015 alongside OMAFRA, Fertilizer Canada and OABA, and has been implemented throughout Ontario over the last 5 years.

If done right, the 4Rs will help implement sound agronomy that will protect nutrient investments, help get the most out of every fertilizer dollar, achieve maximum yields, and protect the environment.

The 4R Certification is a voluntary program for ag retailers to take part in. The program guidelines have been adapted from a similar program in Ohio. The program encourages retailers to adopt and recommend 4R Nutrient Stewardship Best Management Practices. The 4R Certification program in Ontario is comprised of 37 auditable standards within 4 categories: training, recommendations, application, and documentation.

For 2021, North Wellington Co-op is working to adopt these standards to support our growers. It is our goal to complete a pre-audit in summer of 2021 and move towards full implementation for 2022.

We need your help!

We require your help to achieve certification! Throughout 2021, we are collecting the following information from our growers

- Field Maps noting acres, water bodies, wells, municipal drains and watersheds where your fields are located
- Soil Test Results from each field that were taken within the last 3 years. If you don't have these, contact NWC and we can sign your fields up for soil testing in 2021.

More information will be coming in the next few months. If you have further questions regarding 4R Nutrient Stewardship, contact your Crop Specialist or visit www.fertilizercanada.ca/nutrient-stewardship.

Brent Troyer
CCA, CCS, 4R NMS
519-323-6175

Luke Hartung
CCA, CCS, 4R NMS
519-321-1400

Jay Lennox
CCA, CCS, 4R NMS
519-321-9705

Justine Lennox
CCA
519-323-6844



In case some of you haven't noticed, crop prices have soared over the winter and many growers are keen to take advantage of this and harvest as many bushels as possible. Recently, I've been starting to get several calls asking 'can I max out my soybean yield?' Aside from hoping Mother Nature gives us timely rains all season long, here are some suggestions that will help you maximize your soybean yield:

Pre-plant:

Soil Fertility - if you aren't currently taking soil samples every 3-5 years per field, you need to start. To achieve top yields, you need to know the base fertility of your farms. For soybeans (and all field crops), you want a min of 20ppm bi-carb Phosphorus (P) and 100ppm Potassium (K). Higher is better yet. If you don't know your fields' fertility levels, you still have time this spring to pull some samples ahead of planting. If you are not at these levels, it doesn't mean you can't still grow a crop of soybeans, but the odds are against you growing a 60+ bushel crop.

Crop Rotation - There has been a lot of research done in the province on the effects of a good crop rotation and yield. The long-term rotation site at the Elora and Ridgeway research station (25 year study) shows that by sticking to a three-way crop rotation (corn-soys-cereal), growers get a 13% increase in their soybean yields, vs a two-crop rotation. It's not that you can't grow soys on a shorter rotation, but you are taking away some bushels.

Variety Selection - Not all varieties are created equal, and not all will excel in every field. To select the right variety you need to know:

- Soil type, disease potential, Soybean Cyst Nematode (SCN) pressure, weed pressure.

Soil Type - Different varieties excel in sand/gravel, loam, and clay soils. The best resource to identify which variety works well on certain soil types is the company seed guides

Disease potential - Specifically, have you previously had issues with the soybean diseases white mould, phytophthora, or Sudden Death Syndrome? If you've answered yes to any one of these, be sure to select varieties that are not susceptible to these diseases.

This information can be found in the seed company's seed guides. If you are applying manure or have a high fertility field, you should automatically be selecting a variety with good white mould tolerance.

SCN Pressure - If your field has a known SCN population, you need to select a variety that has tolerance to the SCN. You should also keep at least a three-year (or more) rotation in these fields. Information can be found in the company seed guides

Weed Pressure - If you know you have a very weedy field, you should be looking at herbicide tolerant variety (eg. Roundup Ready, Enlist or Xtend). If you have known Glyphosate tolerant weeds, plant Xtend (dicamba tolerant) or Enlist (2,4-D tolerant) soybeans. Once you've identified these perimeters, look at local trial data, company variety descriptions/data, and Ontario trials (gosoyos.ca). Try and identify your top two-three choices in case one gets sold out.

Planting:

Planting date - If 2020 taught me anything, it is that we shouldn't be afraid to plant early. How early is too early? Data from Ontario shows that there was the same yield potential for soybean planted from April 22 to May 22 as long as the field was fit. Of note from the early planting, is that there was higher seed mortality, but the early planted soybeans will have a longer growing season to branch and develop more nodes, thus helping the lower stand compensate for yield. If you are planning on planting early, growers can look at a longer season variety, which will help you gain more bushels.

Planting depth - As long as soil moisture is adequate, plant 1.25-1.5". This data is supported by OMAFRA's recent seed depth studies. Under ideal soil moisture, going much deeper than 1.5" results in lower stand counts and lower yield potential. However, it is important to seed into soil moisture, and if you need to you can plant up to 2.5" deep.

Seed treatment - I'm a strong believer in seed treatments. If you plan to plant early, you should be using a fungicide/insecticide seed treatment.

In-season:

Weed Control - To achieve high-yielding soys, the field needs to be weed-free all season long. Growers should be looking at a two-pass approach. The first pass should be a pre-emergent application, and then follow-up in crop to scout and apply the proper herbicide to keep it clean. By keeping the soys clean from the start, growers can pick-up to an extra 4 busels per acre. It is important to have a weed control strategy in place before the season starts. Crop plan with your NWC Crop Specialist today!

Stand counts - Knowing your stand population is important because 1) knowing if you have enough plants for 100% yield potential, and 2) if you have a high plant population. This will help you make white mould fungicide decisions later on in the season.

Pest scouting - Especially scouting for spider mites, aphids, and bean leaf beetle. Talk to your NWC Crop Specialist to understand how/where/when to scout for these pests.

White mould disease prevention - This needs to be done with a preventive fungicide, which is applied during flowering (R2-3). Studies done by OMAFRA find a consistent 2-3 bushel per acre response, BUT in fields where white mould pressure is high, the response can be 20-30 bushels. In these fields, growers should be doing a two-pass fungicide application.

Harvest:

Set that combine! - You've got your crop to harvest, MAKE SURE YOU GET IT IN THE BIN! Every four beans found on the ground is equivalent to 1 bushel per acre lost. You will always get some loss, but you want to keep this as low as possible.

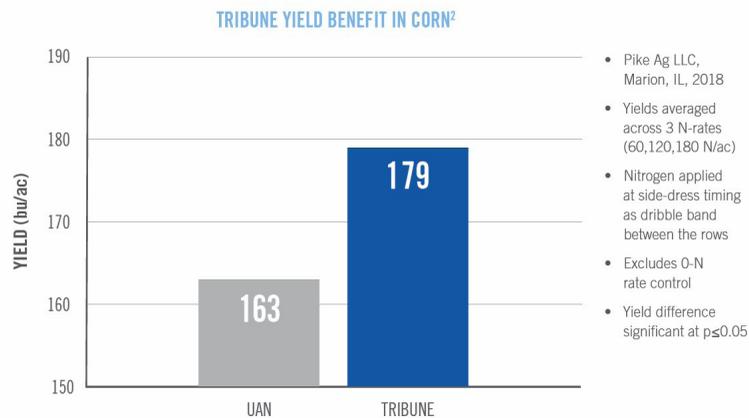
If you follow-up on these steps, you are well on the way to achieving high-yielding soybeans. If you wish to discuss any of these tips/steps, contact your NWC Crop Specialist. Good luck with your 2021 soybean crop.

As soon as you apply nitrogen to the soil, it is vulnerable to loss. There are three ways nitrogen can be lost: leaching, denitrification and volatilization. Up to 70% of loss happens below ground through leaching and denitrification. The remaining is lost above ground through volatilization. To slow this loss, we use nitrogen stabilizers. At North Wellington Co-op, we can accurately apply the stabilizer through our bulk fertilizer handling system to protect your investment.

You've likely heard of Agrotain or Agrotain Plus in previous years. New for 2021, Koch Industries have reformulated their products. Tribune replaces Agrotain Plus and Anvol will replace Agrotain Advanced.

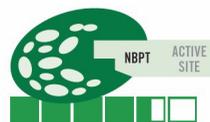
Tribune is used for UAN Protection. Similar to the previous formulation found in Agrotain Plus, Tribune contains NBPT urease inhibitor technology along with Pronitridine that helps to protect your nitrogen from volatilization, leaching, and denitrification. With the dual-action product, your nitrogen will receive consistent protection for above and below ground loss.

A true liquid formulation product that is designed to be blended with UAN, Tribune can also be mixed with many crop protection products to make application efficient. Because Tribune has above and below ground protection of your nitrogen, the ideal place to use this product would be on those fields where nitrogen is being left on the soil surface and where soils have a higher potential for nitrogen loss when moisture is abundant.



Anvol is a newly designed nitrogen stabilizer that includes NBPT and Duromide which help to protect your nitrogen from volatilization. The Duromide technology will give Urea based products a longer-lasting urease inhibitor protection than NBPT alone. Strong consideration should be made to include Anvol nitrogen stabilizer when applying your urea nitrogen on the soil surface or by shallow incorporation and when applying in high residue systems. Anvol can be used with either UAN or dry Urea.

DUROMIDE DELIVERS LONGEVITY



Once applied, NBPT can quickly block the hydrolysis of urea. However, NBPT degrades and urea is, once again, vulnerable to the conversion into ammonia gas.



Duromide is a sturdier active ingredient designed to provide efficacy beyond the window offered by NBPT.



The increased stability of Duromide also gives ANVOL the ability to perform more consistently in various soil environments.

Both Tribune and Anvol provide excellent protection of your Urea based nitrogen products from loss to the environment and financial loss of your nitrogen. With the increase in nitrogen pricing and strong commodity prices, keeping your nitrogen protected maximizing your yield potential makes sense. Using a nitrogen stabilizer also is the best practice for 4R stewardship of your nitrogen.

Talk to your NWC Crop Specialist to discuss which nitrogen stabilizer would best fit your farming operation.

Harriston

56 Margaret St S, PO Box 700
Harriston ON N0G 1Z0
ph: 519-338-2331 fx: 519-338-3513
harriston@northwellington.ca

Durham

377 Garafraxa St S
Durham ON N0G 1R0
ph: 519-369-2415 fx: 519-369-6383
durham@northwellington.ca

Hanover

691 10th Street
Hanover ON N4N 1S1
ph: 519-364-4777 fx: 519-364-7128
hanover@northwellington.ca

Mount Forest

404 Main Street South
Mount Forest ON N0G 2L3
ph: 519-323-1271 fx: 519-323-3438
mountforest@northwellington.ca