



### Cover Crops

This year most fields have some variable emergence and plant growth due to the wet conditions we have been struggling with. Yes, the wet conditions are mostly to blame - but emergence and plant growth is worse where soil drainage is poor. Soil type, slope and tile are the main factors to good drainage but soil condition/health is also a contributing factor.

Cover crops increase the amount of organic material and microbial activity (worms, etc) in soil. That increases the nutrient holding capacity and the rate of water infiltration which reduces runoff and compaction of saturated soils. Cover crops simply reduce the stress on crops caused by extreme weather conditions.

A few options you may consider for your farm:

- 1) Fall Rye- Should be used from August into September. Fall Rye will germinate at lower soil temperatures, and it maintains more aggressive growth as temperatures drop. Fall Rye will overwinter and a late burndown application will be required. **Fall Rye has 5 Times the potential root mass of Oats!**
- 2) Oats- Basic ground cover after winter wheat to capture residual N and sunlight. Will not over winter.
- 3) Adding Crimson Clover to Rye or Oats- Lowers C:N ratio and adds a nitrogen credit to succeeding crops.

*Start thinking cover crops! From fall rye for as little as \$7/ac you can start improving your soil health!*

### Soil Sampling

It's time to forecast your soil sampling needs for this fall and create an action plan to get them done. Knowing your soil fertility status will provide meaningful data for a proactive approach to fertilizer management. Regardless of commodity values past, present or future, knowledge of soil nutrient inventory is a benchmark starting point for crop production planning.

Some key areas of soil tests that can impact your bottom line include:

1. Managing soil pH and optimizing nutrient uptake by variable rate liming
2. Soil organic matter and noticing the importance of cover crops
3. Balancing soil nutrient levels for improved yield through using base saturation levels and CEC.
4. Monitoring secondary elements such as Sulfur and Magnesium for improving Nitrogen and Phosphorus uptake
5. Assisting in making better decisions regarding the right time, right placement, right product and the right application of nutrients to grow the best product.

Thousands of dollars are spent every year on fertilizer and limestone in our area. The cost of soil testing is relatively inexpensive in comparison in the cost of the fertilizer. Holmes Agro offers a variety of soil sampling services including bulk, grid, zone or site-specific sampling and can follow up with prescriptions to custom fit your field requirements. Larger fields with more variability should be sampled more strategically, which is where zone and grid sampling can be best utilized. These grids and zones can help identify changes in pH, fertility and soil type. These maps can then be used in combination with yield data, NDVI images, drone images, and grower experience. These tools can then be used to create plans for variable rate lime, fertilizer and even seeding rates. Please make time to sit down with your agronomist to create a soil testing strategy to meet your cropping expectations.

### Soil Warrior Strip Tillage

Many producers aim to improve the precision of our activities on the land. Holmes Agro has begun extensive trialing of the 'Strip Tillage' concept. A 'strip till' implement is a multipurpose tool that is designed to work only the areas of the field, the 'strips', that are essential to the planting of a crop, while applying fertilizer in the intended planting zone of next season's crop. The unit works through approximately 1/3 of the soil surface, leaving the rest untouched to preserve soil structure and moisture. The seed zone, however, is opened up, allowing for faster drying and earlier planting. Advantages to the system include: reduced spring tillage, improved soil structure, improved soil water retention, reduced erosion, and a more environmental approach to phosphorus management. Strip tillage, in our region, is generally done in the fall, however there are opportunities to exercise the technology in spring also. While the 'strip till' concept is largely applied to corn production, interesting trials in twin-row wheat and beans have been done as well. Since the fall of 2015, Holmes Agro has been studying the benefits of this technology, through local trials, and more results are expected as our 2017 harvest wraps up. Holmes Agro will be conducting further trials this fall.

*If you are interested in experimenting with strip-tillage on your farm, please contact your Holmes Agro representative.*



## Winter Wheat 2017

As fall slowly approaches, it is time to think about choosing a wheat variety based on management practices and yield expectations. Wheat in rotation has the potential to increase corn and soybean yields in the first cycle. Investing in certified seed allows you to benefit from genetic advancements, glyphosate tolerance weed control and seed treatments. Here are leading Soft Red Wheat varieties for 2017:

- Branson – Proven variety with excellent disease resistance, good standability, very high yield potential and great grain quality.
- Emporer – This variety has shown consistent yields with very good lodging resistance, and good fusarium and leaf disease tolerance.
- Cruze – Cruze fits all soil types, with excellent leaf disease ratings and high-end yield potential. Cruze has "stood up" to the test.
- Drew – Featuring small seed sizing, Drew fits into all soil types and has a very good disease package. It is a short variety that responds well to management.
- 25R40- Responds to intensive management with excellent standability and high yield potential.
- Hard Red Wheat and Soft White Wheat varieties are also available.

## Crop Deficiencies

There are a number of scenarios that cause soils to be deficient in nutrients or limit plant availability. These scenarios can be addressed through knowing your soil. Soil sampling is the base to all fertilizer decisions. If we have a soil test then we can also eliminate "not enough nutrient" and look at what is tying up that nutrient in the soil (pH, soil saturation, competition, etc.). This allows the agronomy team to address where the issues are, and how to economically address them. Once we see deficiencies in our crops – we are losing yield. Each nutrient has a key function in the plant. The function of that nutrient may be cell structure, pollination, DNA formation, etc. When a plant is deficient in a nutrient it becomes a potential subject to pests and disease. For example, aphids. Aphids feed from the phloem of the plant acquiring nitrogen for energy requirements. K deficient soybean plants lead to the increase in amino acids, and soluble N. This is due to inhibition of oxidative phosphorylation that stops plants from utilizing energy and leads to more free nitrogen sourced compounds unable to be synthesized into proteins. Therefore, K deficient plants more readily supply nutritional components for soybean aphids. There are many in season foliar nutrition product options for correctional + boosting plant health. Talk to your agronomy team today for what to look for when assessing plant nutrition.

## Beneficial Insects

Wow, what an incredible insect! The ladybug can eat over 50 aphids per day. Predators such as ladybugs can decrease aphid populations from four to seven fold. However, aphid populations can still manage to reach threshold, but threshold would have occurred much earlier in the season without biological control. The significance of this fact is the timing of insecticides to reduce likelihood of aphid populations reaching threshold again in the season, and requiring a second or possibly third insecticide application. There are many other beneficial insects which provide control of a wide range of pests. Examples include: parasitic wasps, lacewings, ground beetle, soldier beetles, and many more! Biological control possesses a benefit for the environment and economics, by reducing insecticide usage. Keep a look out for beneficial insects when scouting your fields!

## Calendar 2018

It's never too early to start sending in pictures for the 2018 calendar. We are proud to be able to provide a calendar full of grower pictures year after year – all thanks to your great submissions! Please email you photos to [nicole@holmesagro.com](mailto:nicole@holmesagro.com)

## Important Dates

Monday August 7<sup>th</sup> – Civic Holiday, Office Closed.  
Thursday August 17<sup>th</sup> – Orangeville Expo Day  
Tuesday August 22<sup>nd</sup> – Flamborough Expo Day  
Thursday August 24<sup>th</sup> – Stayner Expo Day  
Monday September 4<sup>th</sup> – Labor Day, Office Closed.

## CLEAN Farms 2017

Holmes Agro is proud to participate in the CleanFarms program as a depot to accept your empty pesticide jugs and seed bags. Just a few guidelines to remember:

- **Seed/chemical bags** – all types of EMPTY pesticide bags as well as paper multi-wall and plastic seed bags can be returned in the clear green plastic bags we have available at our locations. Seed bulk bags can be returned neatly bundled into rolls of 6.
- **Chemical jugs** – only clean, triple-rinsed jugs with caps and booklets removed will be accepted for recycling.

