



New Brunswick Soil & Crop Newsletter



April - June 2017

Volume 4, Issue 2

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2017 Forage and Grain Competition

Details of Competition:

- Samples must be received by an Agrologist by Noon on **Wednesday, August 16th, 2017** to ensure that samples are sent to PEI analytical lab for analysis before the competition.
- Judging will be based on 40% Visual, 30% TND and 30% Crude Protein
- Dry hay and silage submission amounts required will be ~ 1 flake. Half of the sample will be sent to the PEI analytical Lab for testing and the other half will be store in an appropriate manor. Other samples will require ~ 1 liter of product
- Please label all samples submitted with name, farm name, email or phone number, sample harvest date and category
- If you would like help getting your sample to Fredericton contact your local Agrologist.
- Ribbons will be presented to winners and all submissions will be on display in the Agricultural Barn throughout the week.

Rules:

- Samples must be grown on the farm of the entrant
- A farm is able to submit more than one entry

Categories

Hay –More than 18% moisture will be penalized

- 1.) First cut legume (70% or higher)
- 2.) First cut grass (less than 50% legume)
- 3.) Second cut legume (70% or higher)
- 4.) second cut grass (less than 50% legume)

Other Crops

- 1.) Oats
- 2.) Barley
- 3.) Wheat
- 4.) Grain corn
- 5.) Soybeans

Haylage–should be at least 30% Dry Matter

- 1.) First cut legume (70% or higher) chopped
- 2.) First cut grass (less than 50% legume) chopped
- 3.) Second cut legume (70% or higher) chopped
- 4.) Second cut grass (less than 50% legume) chopped
- 5.) First cut legume (70% or higher) non-chopped
- 6.) First cut grass (less than 50% legume) non-chopped
- 7.) Second cut legume (70% or higher) non-chopped
- 8.) Second cut grass (less than 50% legume) non-chopped
- 9.) Corn silage

If more information is required please contact LeighaSandwith
central@nbscia.ca or (506) 440-7561



Growing Forward 2 | Cultivons l'avenir 2

NBSCIA GETT™ Corn Hybrid Trials

Seed tapes are a common practice used in gardening. The tape has seeds attached at the appropriate spacing for ease of planting. It is commonly used with tiny seeds, such as carrots that are difficult to evenly place in the row. The “tape” is made of a bio-degradable film that is planted directly into the ground. They do tend to be quite expensive but can be made at home using corn starch, water and paper towel.

Maizex is currently the only major corn seed company making use of the concept for infield corn hybrid performance evaluations. A Genetic Environment Tape Trial (GETT™) is an efficient approach to enable in-field seed testing right down to the row. Different hybrids can be compared and evaluated in fields and under different management practices with minimal financial risk or time commitment. Such an approach could enable

NBSCIA to facilitate more corn hybrid comparisons, and potentially other crops, in the numerous micro-climates within New Brunswick.

For the 2017 season Maizex has prepared 4 four row tape sets which were seeded by our members with the assistance of the NBSCIA agronomists. Two locations are in Carleton County and will be combined with the growth modelling work from the Geomatics project and one location Moncton and Sackville (Chignecto). The two center rows will be harvested and sampled for yield.

We would like to extend a HUGE thank you to the members that helped get these trials in the ground, we could not have done it without your assistance.



2017 Farm of the Year Nominees

This year's Farm of the Year nominees have been selected. These operations illustrate a wide variety of commodities and are a great representation of what farming is in New Brunswick. Judging will take place in early August by a panel of 3 qualified judges. The winner will be crowned at the NBSCIA Annual General meeting which will be held Feb 22nd and 23rd in Fredericton. Congratulations to all of our nominees, and best of luck to all of you!!

Carleton County

MWC Farms
Murray and Sharon Culberson

Central

River View Orchard
Andrew and Jennifer Lovell

Chignecto

Boudreau Meat Market
Guy Boudreau

Kings County

Miller Farms
Kier and Joan Miller

Moncton

W.A. Farms
Tony and Wanda Van de Brand

Northeast

Grants Brook Farm
Mike Bouma

Flag Test to Measure Emergence Impact

Uniform emergence is one key to maximizing corn yields. To conduct an emergence test, place a colored flag beside each emerged plant in a 20 foot row of your crop. Return every 12 hours and put a different colored flag by any newly emerged plants. Continue to repeat this process with different colored flags until all the plants in the row section have emerged.

This test helps to show how uniformly corn is emerging, which is the first step to achieving a good stand and maximum yields. Uniform emergence typically increases yield results by five to nine percent according to a University of Michigan Study.

Plants that emerge one day after the first plants have broken the soil surface will yield 5% less; plants emerging two days late will lose 8% of their yield; and those appearing three days late will lose 14%. The news gets even worse for laggards emerging four days late – they yield almost 40% less.

Johnson notes that the research reinforces the theory that even emergence has a greater impact on yield than even plant spacing, but it also highlights the importance of proper soil conditions at planting.

Johnson explains how in the trials some plants that emerged on Day 1 actually yielded less than plants that emerged much later. “Emergence is important, but that microclimate you create around the seed really makes a big difference.” He notes that where there is poor seed-to-soil contact, plants can fall behind and loose yield as the season progresses. “There were some plants that emerged on Day 1 that fell so far behind they had no cob at all.”

Having adequate downforce on the planter to ensure seeds are planted at an even depth is just one management practice to help growers promote even emergence, says Johnson. He cautions, however, that poor soil conditions can undo even the best laid management plans.

“It’s important to get them all up on the same day, but make sure the soil is in the right condition, so the plants don’t change as they go through the growth stages. It’s not just the emergence.”

Real Agriculture, resident agronomist Peter Johnson

<https://www.realagriculture.com/2017/02/corn-school-late-emergers-struggle-in-flag-test/>

Additional Reference: <https://www.pioneer.com/home/site/us/agronomy/soil-temp-corn-emergence/>

As part of an NBSCIA Project, Crop Production Management Assessment, sites have been selected to do the flag test and monitor emergence. These sites are located in Carleton County, Fredericton, Sussex and Moncton.

Emergence?		
	Leaf tips	Yield (%)
day 1	7.65	100
day 2	7.30	95
day 3	7.15	92
day 4	7.0	86
day 5	6.6	61
day 6	5.3	42
late	4.8	37



Field where it took at least 7 days for all the corn to emerge. Blue flags are day 4 and more.



Field where all corn emerged after 3 days. White flags represent day 3.

Watercourse definition and policy changes

Recently the Department of the Environment and Local Government amended the policy on the definition of a watercourse. Previously, only channels depicted on the New Brunswick Hydrographic Network layer (available on Geo NB) were considered a watercourse. The new definition has been broadened to also include any channel greater than 0.5 m in width that displays a rock or soil (mineral or organic) bed that is not depicted on the New Brunswick Hydrographic Network layer. These newly defined 0.5 m watercourses will be treated the same as larger watercourses, requiring the same 30 m riparian zone and watercourse and wetland alteration (WAWA) permits.

In order to address these issues and bring a level of consistency with respect to regulating the alteration of watercourses in the province, the new working definition outlined below now applies to the administration of the WAWA Regulation.

- a) the bed, banks and sides of any watercourse that is depicted on the New Brunswick Hydrographic Network layer (available on GeoNB Map Viewer);
- b) the bed, banks and sides of any incised channel greater than 0.5 metres in width that displays a rock or soil (mineral or organic) bed, that is not depicted on New Brunswick Hydrographic Network layer (available on GeoNB Map Viewer); water/flow does not have to be continuous and may be absent during any time of year; or
- c) a natural or man-made basin (i.e. lakes and ponds).

The recently released online WAWA application process can be found at <https://www.elgegl.gnb.ca/WAWAG/en/Home/Site> and incorporates both a mapping function and a series of questions with respect to the presence of watercourse features based on the description above.

Save the Date

Afternoon Knowledge Session: Field Peas

When: July 17th, 2017 at 1:30 pm

What: Chris Chevilo of WA Grains will discuss field peas as a rotational crop

Where: Field at 4-Corner's in front of the Irving mill Sussex, NB

Directions: Take the 4-Corner's exit, and it is the field just past the Frenchy's. For more information call Nadine Simpson, (506) 434-1269



Kings County Forage Field Day

August 9th, 2017

Brownsville Farm (Field Behind Downey Ford)
1585 Riverview Drive E
Sussex, NB

AAFC Field Day

August 9th, 2017

AAFC Nappan
4016 NS-302
Nappan, NS

Central Soil & Crop Brew Tour and Information Day

Information to come

New Brunswick Provincial Exhibition

September 3rd—9th, 2017

Capital Exhibition Centre
361 Smythe Street
Fredericton, NB

Member Service Description

Geomatic packages

- Includes a basic set of farm maps. These maps are georeferenced and illustrate watercourses and other buffers
- Custom mapping packages include Soil Status maps, Target Balance Maps, Variable Rate Application Maps

GPS work

- Perimeter mapping, area determination, crop yields

Soil Sampling package

- Includes sampling, sample preparation, completion of soil form and submission of samples, and interpretation of results as well as recommendations (does not include cost of soil analysis)

Environmental Farm Plan

- Can create field and farm maps, emergency response plans, as part of your environmental farm plan

Equipment calibration

- Calibrations on sprayers, seeders and manure spreaders

Emergency Response Plan

- A written emergency response plan for compliance with regulatory bodies

Nutrient Management Plan

- Whole farm nutrient management plans, including plans compliant with the Livestock Operations Act

Intensive Crop Management Planning

- Integrated Pest Management
- Scouting fields for insect pests and weeds
- Plant population counts and plant emergence counts

Pre-Audit Assessment

Cost of Production Analysis

Crop Monitoring

Production Management

Contact Us

If you are in need of any services, or have any questions, please contact your local agrolgist.

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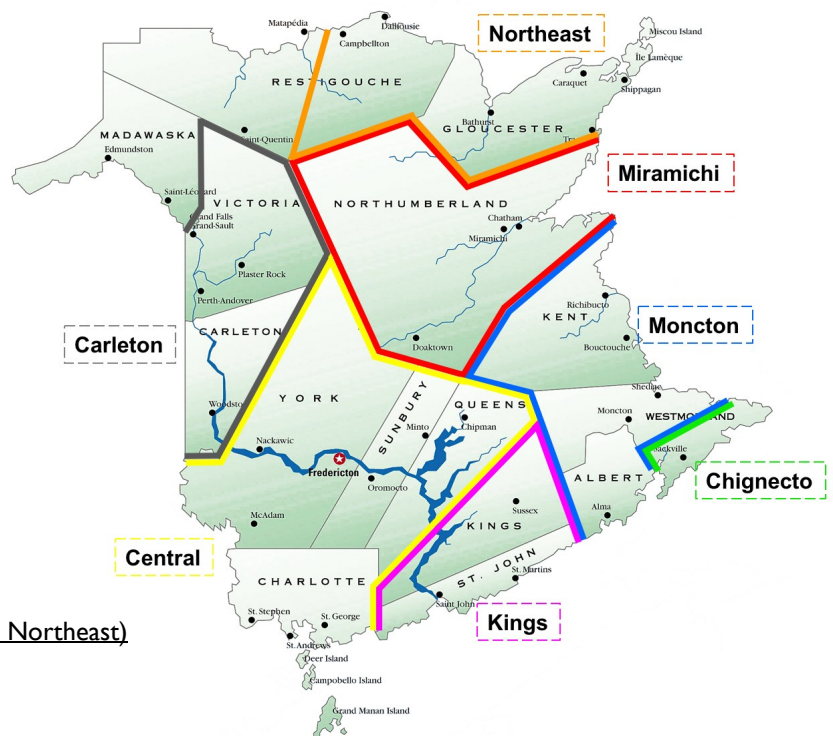
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