New Brunswick Soil and Crop Improvement Association « June 2024 Newsletter »

Now We Need Rain

This year's warm, dry spring has provided NB farmers the chance to get crops in quicker and earlier than typical springs have allowed in the past. This is seen as a great advantage for the crop this year, allowing it to get off to an early start which will hopefully lead to earlier maturity in the fall.

Soils across the province had enough moisture and heat to get seed germinated and to emergence; however, we now need rain to continue to feed the plant nutrients and provide the water required for growth. Most nutrients in the soil are made available to the plant in water which are then taken up by the roots. With a lack of soil water, less nutrients will be taken up by plant roots which can lead to plant stress and yield loss.

To compare with last year's conditions, crops were able to get in without



excessive moisture slowing down planting. However, last summer had very frequent rainfall which made finding a forage harvest window difficult. This year, farmers were able to start forage harvest early and some have already completed first cut. Now we need the rain to support regrowth and incorporate the manure that many farmers like to spread after the first forage harvest. Unfortunately, the dry weather is persisting in

parts of the province and farmers wait in hope for a good rain.

In This Issue

June 2024

volume 10, issue 2

revised by Andrea Versloot

Now We Need Rain	I
Message from the President	3
Message from the General Manager	4
Updates from DAAF	5
Regional Reports	7
Photos	14
Services/Contacts	15
Partners and Sponsors	16

Alfalfa regrowth after first cut June 18th in the Central region.

Weather is one factor that farmers cannot control; however, by building their soil health, farmers can make their soils more resilient during weather extremes such as drought. Observations made this spring in fields with a living fall rye cover showed increased soil moisture compared with neighboring bare soils. In a dry spring such as this one, this could make a big difference in a seed's ability to germinate and start growing when planted following or into the cover crop. Termination timing of the cover crop is critical to ensure that there is no competition between the new seeding and the existing cover crop.

To monitor precipitation NBSCIA, NBDAAF, and LLNB have Davis weather stations set up on farms across the province that can provide real time data to producers. There is a Davis Weather Link app which is free

to download where users can add any weather stations they would like from around the province to monitor the precipitation, temperature, humidity and wind speed at the various stations. There may be a weather station close to your farm that could provide data you find useful to assist in your crop management decisions.

Region	Precipitation in mm between May I and May 31
Carleton	81
Central	41
Moncton & Chignecto	34
Nord Est	38
Nord Ouest	68
Kings	37

This is the approximate accumulated precipitation for the month of May in the different regions of NB.



Sustainable Canadian Agricultural Partnership

Competitive. Innovative. Resilient.

The Sustainable Canadian Agricultural Partnership (Sustainable CAP) is a five-year (2023 - 2028), cost-shared investment by federal-provincial and territorial governments to strengthen the competitiveness, innovation, and resiliency of the agriculture, agri-food and agri-based products sector.



Scan to access funding program guidelines and application forms.







Message from the President of NBSCIA

As the weather warms, I welcome the opportunity to greet you as the new president of the NB Soil and Crop Improvement Association. I hope all is well on your farm and that your cropping season is progressing and productive. With everything going on, I hope you've been able to take advantage of the many programs and projects the NBSCIA administers such as the On Farm Climate Action Fund (OFCAF), soil testing, manure sampling, and coordinator advise on cropping and inputs. I hope everyone has taken advantage of the transportation subsidy for lime which NBSCIA has lobbied the government for.

Government funding has been renewed for another year. Our coordinators and provincial government staff are working together to enhance our farming activities. For example, with the Dept. of Agriculture we have research projects devoted to forages and grains. Contact Jason Wells or Peter Scott for more information. I'm sure there will be some demonstration days to see these trials.

Don't hesitate to contact your local coordinator who can give advice and help with cropping decisions and soil testing. The more you know about what's under your feet, the better the choices you can make.

I would like to thank our directors and staff for the work they do on behalf of our association. I also acknowledge and thank those we have contracted to help with the OFCAF program.

Finally, I encourage you to reach out to your fellow farmers and suggest joining the NBSCIA. The more members we have, the stronger we become.

The NBSCIA team and I wish that you and your families enjoy a productive and fun-filled summer on your farms.

Sincerely,

John Bos



Message from the General Manager of NBSCIA - Ray Carmichael

NBSCIA General Manager

I am sure it is no surprise to anyone that New Brunswick experienced an earlier than normal spring, with most crops off to a quick start. I encourage you all to explore the Weather tab on the NBSCIA web site for comparison data; <u>https://www.nbscia.ca/weather-maps/</u>



If you want access to real time weather information reach out to your local coordinator to learn how to connect to the Davis Weather Link and pick the stations of

interest to you. NBSCIA is in the process of rolling this out to members and we would appreciate any feedback from users with suggestions on improvements.

NBSCIA staff are planning various field day activities and <u>as dates are confirmed they will be posted on Face-</u> book and our website. We certainly welcome ideas and topics of interest to the farming community.

NBSCIA ACS-OFCAF Manager

As of April 30, 2024 the New Brunswick Soil and Crop Improvement Association closed further intake of applications for the On-Farm Climate Action Fund for the 2024-2025 crop year. Total available funding for Ultimate Recipients for the current fiscal year has been committed.

Claims for approved projects will be honored as soon as NBSCIA receives funds from Agriculture Canada. If you have questions regarding the process contact the NBSCIA OFCAF Program Administrator: Stephen London (506) 392-0408 ofcaf.facf@nbscia.ca

The objective of the On-Farm Climate Action Fund is to support farmers in adopting beneficial management practices (BMPs) that store carbon and reduce greenhouse gases, specifically in the areas of:

- I. nitrogen management
- 2. cover cropping
- 3. rotational grazing practices

NBSCIA is planning field days and workshop sessions to provide guidance and support the implementation of the BMPs to mitigate climate change. As dates are confirmed they will be posted on Facebook, our website and with partner organizations.



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Updates from DAAF

The Department of Agriculture, Aquaculture and Fisheries (DAAF) is pleased to announce the second year of the Lime Transportation Assistance Program. The new guidelines can be found at https://www2.gnb.ca/content/dam/gnb/Departments/10/pdf/Services/Agriculture/nb-limestone-transportation-assistance-program-guidelines.pdf

This program is intended to help New Brunswick farms defray the cost of trucking lime for the purpose of neutralizing the acidity of the soil on agricultural land, improving soil health and production efficiencies, and helping mitigate climate change impacts.

Applications are processed on a first-come first-served basis until the funds have been exhausted and must be submitted by December 16th, 2024, for expenses that occurred between April I to November 30, 2024.

Please review the program guidelines as they have been changed. If you have any questions, please contact your local DAAF representative.

RALP

The Resilient Agricultural Landscape Program provides support to farmers to improve the environmental resiliency of agricultural landscapes by accelerating the adoption of Ecological Goods and Services (EG&S) Beneficial Management Practices (BMPs). Ecological goods and services are the benefits society derives from healthy functioning ecosystems and include the maintenance and provision of healthy soil and water resources, wildlife habitat and biodiversity, and adapting to the impacts of climate change.

The outcomes of the program include: greenhouse gas emission reductions, improved soil health, increased conservation and restoration of critical wildlife habitat, strengthen resilience of agricultural lands and improved water quality.

The program outcomes promote healthy, functioning ecosystems that benefit all of society. Funding is provided by Agriculture and Agri-Food Canada and the Department of Agriculture, Aquaculture and Fisheries through the Sustainable Canadian Agricultural Partnership.

There are three main categories of eligible practices:

- reduced tillage
- ponds and wetlands
- pollinator habitat, critical and marginal landscapes, trees, riparian areas and crop management

Program guidelines and other information will be available on the department's website.

Applicants should discuss applications with appropriate Department of Agriculture, Aquaculture and Fisheries staff (Business Growth Officer, Development Officer or Specialist) before applying. A list of departmental contacts can be found at the following link: <u>Crop Sector Development (Branch) (gnb.ca)</u>

The province's agricultural and agri-food sector reached a record \$1.23 billion in farm cash receipts in 2023. The Sustainable Canadian Agricultural Partnership is a \$3.5-billion, five-year agreement between the federal, provincial and territorial governments to strengthen the competitiveness, innovation and resiliency of the agriculture, agri-food and agri-based products sector. The agreement includes \$1 billion in federal programs and activities and \$2.5 billion that is cost-shared – 60 per cent federally and 40 per cent provincially/ territorially – for programs that are designed and delivered by provincial and territorial governments.

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Hot spot in the northwest: The forest tent caterpillar moth in agricultural fields

by: Jean-Mars Jean-François

Since the beginning of May 2024, the forest tent caterpillar *Malacosoma disstria* is having a veritable feast throughout the northwest region of New Brunswick. Initially, we observed them attacking the young leaves of Birch and False Aspen. As leaf resources decrease, the forest tent caterpillar begins its gradual migration towards sugar maple and certain agricultural fields in search of tender leaves.

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In some fields, we counted on average 11 insects per square foot. This state of affairs remains for the moment without major impact on the agricultural sector. Also, Wild blueberry fields suffer from the presence of the forest tent caterpillar. In Drummond, 15-20% of leaves are devoured. The owners are considering resorting to the use of pesticides to slow down the progression of these caterpillars and save the season. We then predict a significant drop in yield due to the sustained destruction of the photosynthetic potential of plants.

However, farmers express some concern about their presence in large numbers in the fields. As a result, some of them, members of New Brunswick Soil and Crop, requested our advice on the behavior to adopt if the situation persists and possibly causes crop damages.

Let's do a little history. Widely distributed throughout the American continent, the forest tent caterpillar is endemic to North America. This defoliating insect loves young birch and aspen leaves. In Canada, this insect was observed for the first time in 1791. Since then, we have observed peaks of infestation which last only 3-4



years. In the northwestern New Brunswick region, this intruder reappeared in 2023 on hardwood trees. On the other hand, in 2024, the number and the damage caused are palpable, to the point that local residents have had to resort to all kinds of tricks to get rid of this annoying insect. In hardware stores, sellers of pesticides for domestic use are out of stock of pesticides for the first time because people don't know what to do to thwart the attack of this insect. Some grandmother's recipes have proven effective against forest tent caterpillar. This is the case with hot water mixed with dish soap. In 2016, some Canadian cities opted to fumigate trees with an organic insecticide. As for commercial use, certain pesticides registered in Canada give good results; notably malathion and pesticides based on *Bacillus thurigiensis* (Bt).

According to information published by the Ministry of Natural Resources of Quebec, the forest tent caterpillar reproduces once a year. The first caterpillars appear at the beginning of May, when the leaves of the aspen tree, its favorite host, are spreading. From their appearance until they reach maturity, around mid-June, they devour the tender foliage with avidity. During this time, they undergo five larval molts. As it approaches its maximum size (around 5 cm), the caterpillar becomes increasingly hairy and colorful. A large blue band appears on each side of its body. A row of white spots, shaped like a keyhole, and very fine longitudinal streaks, orange in color, brighten up its black back. During the fourth and fifth stages of their larval life, the forest tent caterpillar searches for new sites to defoliate and shelters to weave their cocoons. It moves in very tight hordes, often very spectacular, and they can then take on the appearance of a real disaster. They are then found near homes, agricultural fields, in ornamental trees and even in vegetable gardens. During their periods and waves of cool weather or bad weather, the caterpillars group together in very dense colonies on the trunks of trees and they then present a frightening spectacle to protect themselves. Unlike its cousin - the American tent caterpillar, the forest tent caterpillar does not set up real "tents": it rather weaves, on the surface of the branches or the trunk, a sort of silk carpet under which it manages to refuge. At the end of their larval development, the caterpillars pupate in individual yellowish cocoons, often coated in a leaf. Ten days later, the butterflies begin to emerge. We therefore see them from the end of June until August. Robust, they are adorned with a palette of colors ranging from beige to buff brown. Their forewings are decorated with a slightly darker band. They do not fly, mate and lay eggs until late in the evening. In July, female butterflies lay their eggs (150 to 350) in the treetops. A moulding sticky coating, which is secreted by the female and which eventually hardens and turns black, coats the eggs. This compact mass forms a ring around the young branches. Once they become larvae, they enter winter diapause.

In Canada, the forest caterpillar has been observed on 29 different species, including 27 types of hardwoods. However, its preferred hosts remain, in descending order, the aspen, the paper birch, the sugar maple, the willows and the red oak. The red maple does not attract them. Various treatments can be used to protect ornamental trees, such as sprinkling with water containing dishwashing detergent (I teaspoon per liter). The biological insecticide, *Bacillus thuringiensis* (Bt), sold under various trademarks, is also effective against the forest tent caterpillar. The insect that ingests it dies a few days later. Bt must therefore be applied very early in spring, as soon as the foliage has reached its maximum size, so that the insecticide is deposited on an adequate surface. In high-value stands, we can initiate the fight with Bt, if the egg population survey carried out in the fall suggests significant damage for the following spring. It is important to note that the use of the same insecticide can lead to a certain resistance in the insect.



Spring in the Northshore has been favourable as far as weather goes, with early warm soils allowing for early field work and ideal forage harvesting conditions even on some of our heavier clay soils. I've been happy to help some members with fertility plans, BMP recommendations, and knowledge transfer from technical sessions since I've returned from New Zealand.

May is always a busy time for wild blueberries, with flowering being our highest risk window for disease and frost damage. Luckily, we had very few disease risk instances for monolinia and Botrytis blight, and no late frosts. Pollination weather was optimal for all bee species, and though it is too early to say for certain, I can say the weather is certainly favouring a high yield potential year, depending on management.

A large portion of my work this spring has included a trial for a new product for wild blueberry and other fruit producers, called BioPolin, which claims to increase pollination activity of honey bees, resulting in increased fruit size and yields. The trial includes 8 test plots, where I will compare fruit set, fruit size, and total yield weight results as the season continues with untreated control samples. A product like this could help boost fields that have plateaued in production by increasing fruit size or increased number of fruits. The results of this years trials will be analyzed and shared with membership this fall and winter.

We have three field days in the works coming up for the summer season in the Northeast so be sure to keep an eye on your emails from yours truly as well as the NBSCIA Facebook page for finalized dates. Soil sampling season is upon us as well, so please reach out to me if that is on your summer to do list!



News from Carleton

by: Andrew Sytsma

This spring saw the completion of numerous nutrient management and cover cropping plans as well as environmental farm plans. We also have been doing solid manure spreader calibrations with the platform scales so for those of you with new machines, this is a great way to fine tune your application rates.

I seemed to be going back to school this spring! Andrea and I were a part of the Nackawic High School Agriculture Expo where we displayed a weather station and showed how we use it for agriculture to middle and



Planting the oat plots.

high school students in the area. I also was a guest speaker to the agriculture science class at Carleton North High School earlier this month where I gave a presentation on agriculture education opportunities, what NBSCIA is and does, some of the research work NBSCIA has done and soil health. We had great interest and engagement both times, especially the little contest we had at Nackawic to see who could make the wind blow the fastest on the weather station's wind gauge. On the research side of things, the weather monitoring project is up and running for another year as well as the oat and winter wheat cultivar development trials in Williamstown. The oats were seeded nice and early and are off to a great start. The winter wheat was planted later than ideal last fall and suffered winterkill in some of the plots but others had near perfect winter survival so this may be a good indication that some lines have better winter survival than others.



Winter wheat plots the first week of June.

The Central Region

by: Andrea Versloot

It has been a busy spring, as expected when working in agriculture. With such nice warm weather and little rain, farmers were able to get crops in a little earlier this year and get a head start on forage harvest. With corn and soybeans having been planted for a couple weeks now, it is great to see the plants up out of the ground. It was a surprise to see how much the grass grew this spring with little rain and farmers are pleased with the opportunity to get forage in early and at the appropriate moisture while maintaining high quality. In this area we were fortunate to have had a good rain a few days this month to help with forage regrowth and

new seeding growth and I hope as summer comes along, we will get more rain balanced with lots of sunshine and heat to achieve good yields this year.

Apple orchards are now in the fruitlet stage and some farmers have commented that they feel the trees are ahead this year. Thinning is the task on orchard managers' plates right now to ensure that there is good fruit production and minimized risk for disease.

Strawberry picking season is almost upon us with fruits sizing up.



New for Central Soil and Crop

The board has set up a Central Soil and Crop Facebook page where events, photos, farm stories and factsheets will be shared. This page was created to better connect our local producers across our wide range of commodities and to share information on local events.

I have had the opportunity to get out to many farms this spring and hope to continue meeting with new and existing members throughout the summer and fall. An important part of my job with NBSCIA is to organize field days and I am happy to announce that I have several in the planning stages, so stay tunned for more details. I look forward to working with you all in the coming months!

Kings County

by: Joseph Graham

Kings County has been busy, with a very dry planting season leading to an early first cut of forages. The summer is just beginning and work has been underway to organize a fall Tillage Day for our Local Membership. This will hopefully once again bring NBSCIA members and the farming community together for tillage equipment demonstrations. More details will be shared soon.



The trial plots located in Knightville have been growing quickly. Alfalfa, Festulolium, and a newly seeded Orchardgrass / Timothy trial are all underway. This research in collaboration with Jason Wells (DAAF) and the Atlantic Grains Council is crucial for the region. The first cut off the Alfalfa trial was harvested June 11th, this felt late compared to many other farms in the region. However, very few blooms were spotted amongst the various varieties. Hopefully there is moisture on our way or yields could drop substantially going into second cut.

The local board will once again be supporting students who at-

tend a post-secondary agricultural or environmental program. With two 250\$ bursaries being available to schools in the region. This has been a longstanding tradition for the Kings County Soil and Crop. They look forward to supporting young individuals in agriculture. We wish all the 2024 Grads the best.

Going into the summer months we will be continuing to support and or plan events for the region. We will also be observing some work being done by Living Labs NB. This past week cotton Living Labs T-Shirts were planted at many Living Labs farms. It will be interesting to see what the soil microbes will do to each of them as we get into this hot summer. I can assure you the ground was quite dry while planting this cotton shirt in a grazed pasture in Belleisle Creek.

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Updates from Moncton/Chignecto

by: Beverly Booth

The Moncton and Chignecto regions have been busy getting crops in due to the relatively dry April and May. I was able to meet up with members of DAAF and the Atlantic Grains Council on May 22nd to observe and assist with the planting of the Maritime Corn Hybrid Evaluation Trial in Corn Hill. It has been a very eventful spring season aiding farmers with nutrient management planning. Nutrient management planning and providing fertility recommendations has been the bulk of my work load. I have been fortunate to meet with many of the producers in my area from one end of my region to the other. I had the opportunity to get out and do some crop scouting. I am in the works of planning two or three upcoming field days regarding the cover cropping and rotational grazing BMP topics and already have some ideas flowing so stay tuned for official dates! I look forward to working with you to enhance the soil and crop sustainability in New Brunswick.







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

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A written emergency response plan for compliance with regulatory bodies

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

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Canada GAP Pre-Audit Assessment

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Production Management

Contact Us

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

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