Native Agri Update

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www.firstnationsag.ca

AGRICULTURE IN THE CLASSROOM

Are you a teacher looking for new lessons for your First Nations students? If so, the First Nations Agriculture for Seven Generations Program is worth considering.

The program was created by First Nations Ag and Finance in partnership with Agscape to support increased First Nation participation in the farming and Agriculture sector. The goal of the project is to engage First Nations Youth's interest in farming and agribusiness possibilities and opportunities through the delivery of lessons covering many aspects of farming and food production. Four lessons have been developed for delivery by Jen Hunter-O'Brien, our Seven Generation Lead. Depending on school location and scheduling, lessons will be delivered in class or virtually.

About the Lessons

Interactive lessons incorporate First Nations' culture and history for Grades 9-21 and align with Ontario's education curriculum. Learning goals encourage students to think critically about:

- Food security
- Food sovereignty (self determination)
- Connection to the land
- Career and opportunities in food and farming.

The Seven Generations Lead provides 75-minute Ontario curriculum-linked lessons to First Nation students. The lessons incorporate cultural aspects to honour our identity as First Nations in Ontario and real life examples of First Nations farmers participating in the industry today.

FOUR LESSONS

1. Past, Present and Future

In this lesson, students will learn about agriculture and food as well as its relationship with First Nation peoples through the lens of the past, present and future. Students will culminate the lesson by exploring career pathways available to First Nation Youth in the agri-food sector related to technology and advancements in the agri-food field.

2. Local and Global Food Impacts

In this lesson, students will explore local food issues as well as learn about First Nations' impact on local and global food systems. Students will culminate the lesson by exploring career pathways available to First Nation Youth in the agri-food sector related to local and global food systems.

3. Food Sovereignty

In this lesson, students will discuss the idea of food sovereignty and food security, and connect traditional ecological links to current agricultural practices through classroom discussions, optional written tasks and land-based learning activities. They will also explore career pathways available to First Nation Youth in the agri-food sector related to local and global food systems.

4. Honouring and Nurturing Mother Earth

This lesson provides the student with knowledge on how mother earth cares for us and how we should care for her. Exploring different harvesting methods for each season and the harvest cycles Indigenous peoples follow. Career pathways available to First Nations students will be discussed and the many opportunities these career offer.

If you would like more information on the program, lessons or to schedule a lesson, contact Jen at jobrien@firstnationsag.ca or 1 -800-363-0329.

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Inside

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Agribusiness

WARM WEATHER BRINGS AN EARLY MAPLE SEASON

With the warmer than seasonal weather across Ontario there were many concerns regarding how maple syrup production would go this year. With a poor season last year, 2023, and yields being down 40% across the country, many producers were predicting another year of doom and gloom in the industry.

In many areas due to the warmth producers have tapped and started to produce syrup earlier than they ever have. Some operations are upwards of 2-3 weeks earlier than normal.

With the warmth and limited snow, for producers in the north it is one of the first times that they did not have to navigate tremendous amounts of snow when tapping, leaving the snowshoes at home, and going with runners.

There was a great concern that the warmth would stay and that producers would see an incredibly short season with budding happening earlier than past years. In looking at the projected long range forecast it seems that the cooler weather has decided to stick around, and most producers are looking at a prolonged season. Which comes as a sigh of relief from last year's efforts.

Information from www.onmaplesyrup.ca. For the week of February 28, 2024:

In looking at current production across the province most regions have been back at it over the past week. Golden to amber syrup is being made and dark to very dark in a few regions as well. Overall, there have been very few clarity or filtration issues. In the southwest, some producers have already made up to 70% of an average year's crop.

Southwestern

In the Southwestern region sap flow has picked back up for these respondents with good flow (0.9-0.98 L/tap). The average sap Brix was 2.0-2.1. For the region 60-70% of the average year's crop has been made to date by the producers. Dark syrup is prominently being made in the region.

Grey-Bruce and District

In Grey Bruce and District sap flow has been moderate to very good (0.2-1.0 L/tap). The average sap Brix was 1.9-1.7. Some producers have been dealing with high levels of sugar sand but overall, there have been minimal clarity and filtration issues. In the region, 10-56% of the average year's crop has been made to date.

Waterloo-Wellington

In Waterloo & Wellington sap flow has been good in the region (up to 0.8 L/tap). Average sap Brix ranged from 1.6-2.4. For the region, 15-55% of the average year's crop has been made to date.

Simcoe and District

In Simcoe, sap flow has ranged from minimal to excellent (0.13-1.5 L/tap). The average sap Brix ranged from 2.0-3.0. For the region, 10-60% of the average year's crop has been made to date. Dark to very dark syrup is permanently being made.

Algoma

For Algoma, operations have had moderate sap flow and have started to make syrup.

Algonquin District

For Algonquin, most operations tapped, and a few have had moderate runs this week. The average sap Brix was 2.3-2.8. Two producers have made 15 and 60% (smaller producer) of an average year's crop but the majority have not boiled yet.

Haliburton-Kawartha

In Haliburton Kawartha, all producers seem to have tapped and have had moderate to excellent sap flow (0.25-4 L/tap). The average sap Brix was 2.1-2.2. Those that have boiled have made light golden to amber syrup. For the region,10-50% of the average year's crop has been made.

Ottawa Valley District

In the Ottawa valley, only one of the reporting producers to date has tapped and had one day of moderate sap flow. The average sap Brix was 2.2 and they made amber syrup. The remainder of the larger producers have not yet tapped but plan to soon.

Quinte and District

In the Quinte region, all producers are fully tapped and had moderate sap flow on and off over the past week. The average sap Brix ranged from 2-3.3. One producer reporting had a lot of sugar sand, but the majority have not had any filtration or clarity issues. For the region, 5-40% of the average year's crop has been made to date.

Lanark

For Lanark, all producers are fully tapped but sap flow has varied from minimal to good. No syrup has been made by these producers. The sap Brix ranged from 1.7-2.0.

Eastern

For the Eastern region, two operations reported smaller sap runs this week and produced golden to amber syrup. The average sap Brix ranged from 2.2-2.9. For those producers, 2-12% of the average year's crop has been made to date.

In looking at First Nation operations, they have had some great runs with one operation surpassing last year's total in the first week of being up and operational.

With early concerns behind producers, it looks like we are in for a good maple season, with potential of record production if mother nature is to cooperate.

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Market Information

BEEF MARKET WATCH

Prices are courtesy of the Beef Farmers of Ontario Weekly Market Information Report for the week ending Friday, February 16th, 2024. Changes in this chart reflect the difference in prices from the week of December 4th, 2023 to the week of February 12th, 2024. Weekly reports provide prices on a per cwt basis for the week but do not include Friday sale results.

Fed steers and heifers selling through auction markets this week met a good demand. 282 head sold, down 32 from the previous week and 181 fewer than the same week last year. Fed steers sold from $222.04- $244.05 averaging $232.98 up $1.14 cwt from the previous week and $36.27 stronger than year ago prices. Heifers sold from $223.69-$246.24 averaging $235.97 up $6.17 cwt from the week before and $41.20 cwt higher than year ago prices. Auction markets reported trade as slightly higher to $7.00-$8.00 cwt stronger to start and $2.00-$4.00 stronger as the week progressed. The Ontario rail grade market started the week with bids at $395.00 cwt dressed for steers and $394.00 for heifers but no selling interest was reported. By Tuesday trade started to develop at $400.00 cwt dressed for steers and $399.00 for heifers with delivery the week of February 19th. Wednesday trade continued at $400.00 for steers and $399.00-$400.00 for heifers with delivery now starting into the week of February 26th. Thursday saw steady trade with delivery being scheduled for the week of March 5th. U.S. packer interest continues. This week's average price is $8.00 stronger than last week and $68.00 cwt higher than year ago prices. As of Feb 10, 2024, Ontario federal processing volumes are sitting at 64,987 head in total, down 6.2% from the same time last year and 10.5% below levels seen in 2022 at this time. In the mix steer volumes are down 9.2% from last year and 8.9% below 2022 volumes YTD. Heifers are up 11% over the same time in 2023 but 17% below YTD volumes in 2022. Cull cow processing volumes as of Feb 10, 2024, are down 9.8% from last year at this time and 10% below 2022 YTD.

Category	Price Range $	Ave Price	Top Price	% Change
Rail Steers	400			
Fed steers	222-244	233	265	+6.9
Fed heifers	224-246	236	290	+9.3
Cows	110-150	126	206	+13.5
Bulls	146-183	166	245	+11.4
Stocker steers				
700 – 799	309-368	344	380	+8.2
600 – 699	337-405	373	424	+14.4
500 – 599	351-435	398	472	+11
Stocker heifers				
700 – 799	265-315	293	343	+16.3
600 – 699	270-335	304	365	+12.6
500 – 599	305-367	340	397	+16.4

All prices are on a hundred pound basis (cwt)

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CROP MARKET

Adapted from Market Trends Report Feb & Mar 2024 by Phillip Shaw GFO www.gfo.ca

Corn

Corn has been in bearish territory for a while, and it continues. You can make an argument that many farmers were hoping for the corn carryout number to be trending down, but the USDA report actually put it in the other direction increasing corn carry out by 10 million bushels. The funds have large short positions, and the commercials are the opposite. US farmers are holding on tight to their corn.

The Brazilian corn crop is being planted or is growing in the southern hemisphere. Keep in mind that this might provide some type of fundamental shift in the corn price if that crop gets in trouble. However, at the present time there are a few issues but nothing on the horizon. Will "hot and dry" hit that crop or will it be benign weather into harvest?

The December 2024 corn contract is currently priced at 11.25 cents below the March 2025 contract which is a bearish indication of new crop corn demand. Seasonally, we know that corn prices tend to peak in early June and bottom out in early October. The December 2024 futures contract is at the 33rd percentile of the past five -year price distribution range.

Soybeans

There is some conjecture on the differences between the US crop estimates looking at Brazil and all the other private estimates which say the Brazilian crop is much lower than projected. Keep in mind it's all hard to say, but it is still a very large crop compared to the past history coming out of South America.

On top of the diversion between the crop estimates in South America, China has not been buying soybeans as it once did and in an election year there is even talk about tariffs. We certainly don't want to go there. As it is, the Chinese economy is slowing making purchases of Brazilian soybeans brisk compared to US ports. Part of the issue is the Chinese voracious appetite for soybeans is cooling, while our production has increased globally. Soybean prices have responded in concert.

The November 2024 soybean contract is currently priced 19.25 cents below the March 2025 contract which is considered bearish for new crop beans. Seasonally, soybean prices tend to peak in early July and bottom out in early October. The November 2024 soybean contract is currently at the 45th percentile of the past five-year price distribution range.

Wheat

In many ways wheat is a continual global story. As we all know wheat is either planted or harvested in every month of the year across the globe. Shortages are filled quickly, and surpluses are almost into perpetuity. Russia continues to put more wheat on the market. Wheat futures have been trading sideways since the end of December, which is unusual. However, at a certain point wheat will break out in either direction and producers need to be cognizant of that.

With this mild winter the 860,000 acres of Ontario wheat showed its face in much of Ontario, and it looks pretty good. However, as producers we know it's not over and Canadian winter is likely to come back at least for an encore. This will likely determine how many acres are left going into the warmer months. $7.00 wheat no longer gets producers excited, but the Canadian dollar at $0.74 continues to provide stimulus to Ontario wheat prices.

Livestock Information

TIPS FOR A SUCCESSFUL CALVING SEASON

Calving season has started already with some calves are already on the ground, with more to be born over the coming weeks and months. This article will talk about how being prepared for calving season can help this important season go more smoothly.

Taking the time to be prepared can decrease a lot of the stress and workload of this busy season. This can be as simple as taking 10-15 minutes to locate the necessary accessories needed to assist with a difficult calving, disinfecting this equipment and storing it in a central location that everyone is aware of. Test tools such as flashlights and other power sources like generators, batteries, invertors, etc.

Preparing calving sites ahead of time reduces the workload when calving starts and benefits by helping maintain cow and calf health. Given that calving facilities have not been in use over the past 9-10 months, it is recommended to check all equipment and fix any items that need repair. Calving facilities should be clean and dry with sufficient lighting.

Adequate wind protection should be provided along with fresh bedding, as wet, muddy conditions create a stressful environment for both the cow and calf. Likewise, pathogens, such as those responsible for scours, can accumulate in these types of conditions. Have enough bedding brought in or put up and stored in an easily accessible location. The availability of feed and bedding has been a challenge in recent years for producers in some parts of the country due to extreme weather conditions or drought. However, clean, dry bedding is an important aspect of biosecurity during calving.

For producers calving in the winter months, it is essential to have a plan in place for warming calves during cold weather. Cold, wet conditions can quickly lead to hypothermia. Therefore, having the equipment and tools on hand to deal with this type of situation can quickly minimize calf losses.

Calves are born with virtually no immunity of their own which means that they must receive their initial immunity from antibody -rich colostrum. Therefore, a newborn calf must receive adequate colostrum within the first 12 hours of life. Having necessary supplies, such as colostrum supplements and/or replacements on hand will help alleviate some stress as many producers have long distances to travel to purchase these items. The following should also be considered in advance of calving season.

1. Pay attention to nutrition needs of bred heifers or cows prior to calving. Having heifers and cows in good body condition before calving is important, as it affects stamina during delivery, colostrum quality, calf vigor and rebreeding. Adequate nutrition during the last trimester of pregnancy and especially the last 50-60 days prior to calving is extremely critical.
2. Review your herd health plan with your veterinarian. Discuss with your veterinarian the whole production system to identify critical control points where management could reduce risk and cost effectively improve health. Specifically, address herd health issues that have been problems in the past.
3. Examine calving facilities to make sure they are in good working order. If calving facilities have not been used for a while, inspect gates, pens, alleys and head catches and fix or replace broken items. Give facilities a good cleaning and disinfecting before calving season starts.
4. Check your calving supplies and review the stages of parturition (calving) to understand when assistance is needed. Make sure you are well stocked when it comes to calving supplies, including hand plastic sleeves, obstetrical lube, obstetrical chains and straps, esophageal feeders and calf feeding bottles. Consider vitamin E and selenium.

Coming Events

Mar 5 Ecommerce, Digital Marketing & FNWE
Rama First Nation
For more info or to book your spot contact info@firstnationsag.ca or 1 800 363 0328

Mar 7 Ecommerce & Digital Marketing & FNWE
For more info or to book your spot contact info@firstnationsag.ca or 1 800 363 0328

Mar 27 Business 101 Series—Part 3 of 3
Online Meeting. To register contact info@firstnationsag.ca or 1 800 363 0328

To keep up to date with all coming events and workshops hosted by FNAFO, visit our website and Facebook page at www.firstnationsag.ca www.facebook.com/FirstNationsAg

Crop Information

NUTRIENT UPTAKE IN WHEAT

Based on the presentation at Ontario Ag. Conference by Peter Johnson and Dr. Joshua Nasielski

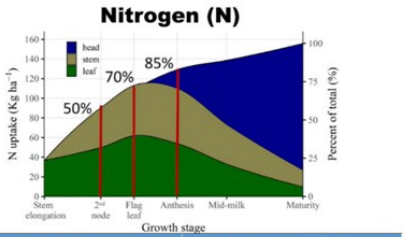
Recently, at the Ontario Ag. Conference, a Nutrient Uptake in Wheat presentation was produced that highlighted a study done from 2019 to 2021. There were over 7,000 data points created and analyzed. This article will highlight some of the findings that came out of the study and how they may affect nutrient applications.

Samples were taken on the winter wheat crop over the course of the growing season, none were taken in the fall because there was so little green material. First samples were taken just before stem elongation began occurring, when the plants were small and tillers were formed. Next were taken when the wheat plant had its second node developed, when the stems had grown. Flag leaf emergence, which is the last leaf that a wheat plant comes out with was the next stage. Anthesis, which is when the wheat plant flowers or sheds pollen was the next stage. Mid-milk stage, when the heads still can be swished with the milky contents coming out and finally maturity were the last stages that were sampled.

For this article, the four major fertility nutrients are going to be discussed: nitrogen, phosphorous, potassium and sulphur. Graphs that are displayed are from the presentation.

Nitrogen

Nitrogen is a key nutrient in any grass crop, and especially so in wheat. This project utilized two different rates of nitrogen, low rate of 55 lbs./acre and a high rate of 150 lbs./acre. Though there was an expected difference in yield between the two rates, the rates did not affect the timing of when the nitrogen was taken up by the plant. As the graph below shows, the majority of the nitrogen taken up by a wheat plant is before flag leaf, with 70% uptake by then.



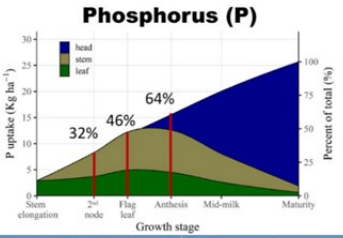
Max recorded N uptake (kg/ha)	N harvest index range (%)
208	72-83

By anthesis, 85% of the nitrogen is taken up. What is interesting is that the first application needs to be on before stem elongation. In the situation where the grower is doing split application of nitrogen, timing needs to be on before flag leaf emergence to give the nitrogen time to dissolve in the soil and become available to the plant. At flag leaf timing, as much as 3 lbs. of Nitrogen/acre/day is being up taken by the plant. After anthesis, this drops to 0.4 lbs. of Nitrogen/acre/day. Once anthesis has taken place, a significant portion of the nitrogen in the plant is moved out of the leaves into the head for grain fill. One of the key findings is that the majority of nitrogen needs to be applied before the second node, and applying nitrogen at flag leaf or later is too late.

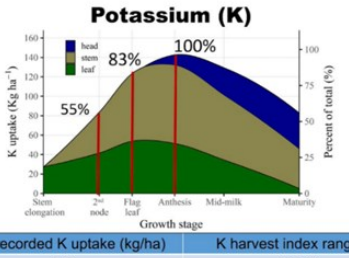
Phosphorous

One of the biggest surprises was phosphorous uptake. The plant takes up a significant portion of phosphorous in the spring, and a lot of it goes to grain. Almost two thirds of the phosphorous is taken up by anthesis, but there is still a lot of uptake after this stage of development.

What the chart shows is that there is a high demand for phosphorous in the spring and brings into question whether Ontario growers should be considering a spring phosphorous application. Whether it be applied with a foliar application with a liquid source or potentially adding dry fertilizer.



Max recorded P uptake (kg/ha)	P harvest index range (%)
33	85-91



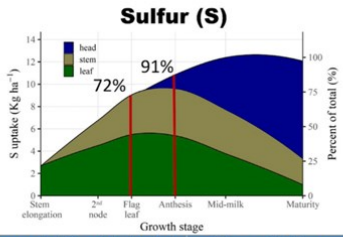
Max recorded K uptake (kg/ha)	K harvest index range (%)
172	26-33

Potassium

The potassium uptake curve is very unique and different than the other nutrients being discussed. Potassium, which generally comes from potash, has 100% uptake by the plant by the time anthesis occurs. So, when the pollen starts being produced, the plant has taken up all of the potassium that it can. Over half of the potassium is taken up by the time the second node appears and over 80% uptake occurs by flag leaf. Peak uptake occurs during the period of stem elongation to flag leaf, with up to 4 lbs. of potassium/acre/day being taken up.

One of the fascinating things was that the plant actually starts "shedding" potassium during the grain fill stage. If you look at the curve, the potassium percentage in the plant actually starts to go down as the season progresses, and there is very little potassium found in the grain of the plant.

Sulfur



Max recorded S uptake (kg/ha)	S harvest index range (%)
16	56-65

Sulfur is a key macronutrient that has become increasingly important over the past 10 to 15 years, due to less industry and emissions forming sulfur dioxide. As a result, Ontario growers are needing to supplement sulfur in their wheat crops to maximize yield. The key findings that the graph shows is that 72% of the sulfur is taken up by flag leaf. This shows that the majority of sulfur uptake occurs early in the season. Therefore, it is best to have the majority of your sulfur on with your initial application of fertilizer. If you intend to do a split application of fertilizer, again put the majority on up-front. A late application may not be available when the plant needs it. There is high demand for sulfur in the grain, so it is almost a sure thing that you will have payback by adding sulfur to your wheat crop.

Summary

Highlighting the four key nutrients for a wheat crop, this study was extensive and will likely lead into further research about getting the optimal nutrients into the plant at the optimal time so that plant can use them efficiently.

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Other News

FINDING A WORK-LIFE BALANCE FOR WOMEN ENTREPRENEURS

The pursuit of success often comes hand in hand with a strong dedication to work. For women entrepreneurs, this dedication can sometimes lead to an imbalance between professional aspirations and personal well-being. However, achieving a harmonious work/life balance is not only essential for a healthy and happy life but also crucial for sustainable success in business.

The concept of "balance" between work and life can be misleading. Instead of striving for a perfect balance, it's more about finding a rhythm that allows women entrepreneurs to navigate the demands of both their businesses and their personal lives effectively. This might mean allocating more time and energy to rejuvenation when possible.

In the fast-paced world of entrepreneurship, it's easy to neglect self-care in favour of pushing harder and working longer hours. However, neglecting one's well-being is a surefire way to burn out quickly. Women entrepreneurs must prioritize self-care practices such as regular exercise, adequate sleep, and healthy eating habits. Additionally, integrating mindfulness techniques can help manage stress and promote mental clarity.

Establishing boundaries is crucial for maintaining work/life balance. This might involve defining specific work hours and sticking to them, resisting the urge to constantly check emails or take work calls outside of designated time. Communicating these boundaries clearly to clients, colleagues, and employees sets expectations and helps prevent work from encroaching into personal time.

Women entrepreneurs often feel the pressure to juggle multiple roles within their businesses. However, learning to delegate tasks and outsource responsibilities can alleviate some of this burden. Whether it's hiring employees, working with freelancers, or utilizing automation tools, delegating allows entrepreneurs to focus on high-priority tasks and prevents burnout.

One of the perks of entrepreneurship is the flexibility it offers. Women entrepreneurs can leverage this flexibility to create schedules that accommodate both work and personal commitments. Whether it's adjusting work hours to attend a child's school event or taking a day off to recharge, embracing flexibility fosters a sense of control over one's time and promotes overall well-being.

Navigating the entrepreneurial journey alone can be challenging. Cultivating a strong support network of mentors, peers, friends, and family provides women entrepreneurs with encouragement, guidance, and a sense of community. Surrounding oneself with like-minded individuals who understand the unique challenges of entrepreneurship can offer invaluable insights and emotional support.

Rather than viewing work and life as separate entities competing for attention, practicing mindful integration involves finding ways to seamlessly incorporate aspects of both into daily routines. This might involve involving family members in business decisions, or scheduling meetings in picturesque outdoor locations and integrating personal matters in a purposeful manner, women entrepreneurs can create a more holistic and fulfilling existence.

Achieving work/life balance is an ongoing journey rather than a destination. For women entrepreneurs, striking a balance between professional ambitions and personal well-being is not only essential for individual fulfillment but also critical for the long-term success of their venture. By prioritizing self-care, setting boundaries, embracing flexibility, and cultivating a strong support network, women entrepreneurs can navigate the entrepreneurial landscape with resilience, purpose, and grace. As they embark on this journey, may they remember that true success lies not only in the heights they reach professionally but also in the richness and balance they cultivate in their lives as a whole.

FNWE

FIRST NATIONS WOMENS ENTREPRENEURSHIP PROGAM

First Nations Agriculture & Finance Ontario (FNAFO) is pleased to offer two exclusive programs tailored for First Nations women aged 18 and above. Our First Nations Women's Entrepreneurship Program offers a combination of micro-loans and grants of up to $20,000 for eligible farm, agribusiness and business activities. Your venture can be either full time, part time or a side hustle. Participants will also benefit from comprehensive training workshops and personalized business coaching.

FNAFO is also proud to offer our Grant and Mentorship program, designed to pair eligible candidates with accomplished First Nations women entrepreneurs for a 6-month mentorship. Mentees will receive financial support of up to $3,000 for eligible business expenses.

For further details or to access an application, please visit our website at www.firstnationsag.ca. Alternatively, you can reach out to us via email at fnwe@FirstNationsAg.ca or by calling 1.800.363.0329.

Take advantage of these valuable opportunities to advance your business endeavors.

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