

Native Agri Update

No. 398 February 2023

READY TO START FARMING?

IAPO is accepting applications for the Beginning Farmers Program (BFP). The program is designed to support new beginning First Nations farmers between the ages of 16 and 40 through all stages of farm business start up.

Eligible farm businesses include: crops, livestock, vegetable, fruit, maple syrup, honey, floriculture and nursery production, mixed farming and aquaculture. Potential applicants are encouraged to contact IAPO if they are unsure whether their new farm business idea qualifies.

The program has two distinct areas of focus: 1) Start up financing 2) Workshops and training.

Start Up Financing & Grants

Eligible participants will be able to access financing and cost share funding to finance their new farm business. Eligible costs include livestock, equipment, machinery, materials, inputs, building costs, storage, etc. On approved projects, participants are eligible to receive 30% cost share grants up to a maximum of \$15,000.

Mentoring, Business Advisory, and **Extension Support**

From business planning to implementation, participants will be supported by mentors and IAPO staff regularly providing help and guidance including farm visits.

Eligibility

To be eligible, applicants must have Indian Status and be between the ages of 16 and 40 years old.

For all start ups, a minimum cash equity contribution of 5% is required.

To be eligible, applicants must not have previously farmed or owned a farm business with annual sales/value of production greater than \$5000/year.

Applications are available from IAPO and participation is limited. Selection will be first come, first served, based on applications submitted.

For more info or an application, contact:info@indianag.on.ca or 1-800-363-0329.

Funding for BFP is provided through the Indigenous Economic Development Fund by the Ministry of Indigenous Affairs.



Indigenous Economic Development Fund

The views s expressed in this publication are the views of IAPO and do not necessarily reflect those of the Province of Ontario.

IAPO WELCOMES **STEVE HUGHES**

IAPO is pleased to announce Steven Hughes has joined IAPO as our Farm Management Advisor for Western Ontario based out of the Lambeth Office. Serving First Nation communities and farmers across Western Ontario, Steve is responsible for farm financing & funding, as well as, business advisory and agriculture extension support.

With his family, Steve operates a small cash-crop operation. He brings a wealth of expertise in agronomy through past works and farm experience, as well as education. Steve is a University of Guelph graduate, majoring in Animal Science, and has worked in the agriculture industry for over 20 years. Most of that time was spent in crop inputs and agronomy support. He also has experience in the seed industry and, most recently, in the precision agronomy field. Steve is a Certified Crop Advisor and has his 4R Certification. Agriculture is a passion of his, and Steve is looking forward to sharing his passion with IAPO's clients and communities.

Steve can be reached at the office at 1 800 663 6192, steven@indianag.on.ca. Steve's cell is 226 228 2573.

www.indianag.on.ca

Inside

Agribusiness
Market Information
Calendar of Events Page Livestock Information Page
Crop Information
Other News

Contributors

Brian Bell - BB

Farm Advisor

brian@indianag.on.ca

Camden Lawrence - CL

Business Advisor

camden@indianag.on.

Jamie Hall - JH

General Manager

jamie@indianag.on.ca

Steven Hughes - SH

Farm Management Advisor steven@indianag.on.ca

> IAPO Box 100 Stirling, ON KOK 3E0 1-800-363-0329 info@indianag.on.ca

Agribusiness

BUSINESS RECOVERY FINANCING

IAPO is offering Business Recovery Financing (BRF) to eligible First Nations businesses affected by the COVID-19 pandemic. Up to \$50,000 is available as 50% repayable financing & 50% grant.

BRF may be used to cover general expenses and may also be used towards increasing production capacity, developing new products, moving to online marketing or to make improvements to accommodate social distancing requirements.

BRF is available while funding lasts to support qualified First Nations farm and agribusinesses across Ontario and qualified First Nations businesses in all sectors in South Central and Eastern Ontario.

For more information on BRF including complete eligibility requirements or an application, contact I-800-363-0329 or info@indianag.on.ca

Funding for BRF is provided through the Indigenous Economic Development Fund by the Ministry of Indigenous Affairs.



Indigenous Economic Development Fund

The views expressed in this publication are the views of IAPO and do not necessarily reflect those of the Province of Ontario.

FARM ECONOMIC GUIDE

https://www.fcc-fac.ca/en/knowledge/economics/farm-economics-guide.html

Big picture economics may feel removed from your farming operation, but understanding the basics can help you make sense of what's happening beyond the farm gate. The more you know and understand, the easier it is to stay on top of the trends that influence your business and, most importantly your profitability.

These 5 factors are key areas to watch when understanding the economics of your farming operation.

1. Canadian Dollar

We tend to focus on the Canadian dollar against the U.S. dollar and don't often consider the relative strength of American currency, but it matters too for agricultural markets. In times of turmoil in the world, even if America is involved, investment tends to flow into the U.S. as the largest global economy and superpower. Because much of world agricultural trade is influenced by the U.S. or denominated in U.S. dollars, a lower U.S. dollar index favours trade. A weaker U.S. currency increases importing nations' purchasing power, generally leading to stronger demand and higher prices for commodities. You can consider the U.S. dollar index as a big picture influence and the U.S. to Canada exchange rate as

a more direct influence on Canadian commodity prices.

2. Interest Rates and Inflation

Most economists agree that a healthy economy has a low, stable rate of inflation, and that's the goal of the Bank of Canada. Zero inflation isn't the goal because that could let the economy slip into a period of deflation where prices are dropping. On the other hand, a high rate of inflation certainly isn't healthy either, so the mandate of the Bank of Canada is a managed rate of inflation targeting price increases at a rate of around 2% a year.

In times of slowing economic activity, the Bank of Canada will typically drop its policy rate to stimulate more borrowing and spending. If high inflation becomes a risk, the policy rate will typically be increased, which we are currently seeing now in 2023. High inflation rates are being matched with ever increasing interest rates in an attempt to cool the economy.

3. Supply & Demand

Supply and demand shifts matter a great deal for markets. I believe we are all aware of how this works and have all been affected by it at some point. An easy example of this is hay sales. If there is a really good growing season and there is a lot of good hay on the market, the price will drop with surplus supply. Same can be said for a bad year with shortage of supply the prise will rise. This can be present in all commodities and affect profitability even on a good cropping year.

4. Factors Influencing Farmland

For most farms, farmland is the biggest asset, and in recent decades land values have appreciated steadily, making it a great investment but also making it hard for new farmers to get started and existing farmers to expand causing total farmland to decrease. In many cases, the price increase has contributed more wealth to the farm than the income derived from production.

The factors increasing farmland are as stated above supply and demand, as they are not making anymore farmland. But one must also consider the interest rates which have been very low for some time pushing up prices but also outside investors coming to Ontario.

5. Food Trade

Canada is a trading nation, especially in agriculture and food. In 2020, Canada ranked 5th among global agriculture commodity exporters. Agriculture and food exports combined totalled \$74.8 billion.

Trade statistics, international trade agreements and nontariff trade barriers are not always top-of-mind for farm families. Since most producers sell to intermediaries and don't export their products directly to other nations, trade issues can seem one step removed from the farm gate but can have a major impact on the end price received for their goods or commodities at the end of the day.

Market Information

BEEF MARKET WATCH

Prices are courtesy of the Beef Farmers of Ontario Weekly Market Information Report for the week ending Friday, February 10, 2023. Changes in this chart reflect the difference in prices from the week of November 30th, 2022 to the week of February 6th, 2023.

Weekly reports provide prices on a per cwt basis for the week but do not

include Friday sale results.

Auction markets reported a strong active market with prices anywhere from \$1.00-\$2.00 higher to \$5.00-\$6.00 cwt higher. By mid-week trade was noted as steady and ended the week up \$1.00-\$2.00 cwt. Auction markets reported trade as active with calves selling on a strong demand at firm prices to sharply to extremely stronger prices. Heavier cattle were firm and fully steady on a good active trade.

The Ontario railgrade market started out the previous Friday with a couple of deals noted at \$328.00 dressed with delivery the week of February 13th.

The demand for fed/cull cows remained strong this week on 2,435 head which sold through auction markets, down 142 from last week and 437 fewer that the same week last year. Cows ranged from \$84.84-\$121.63 with a weekly weighted average price of \$102.16 up \$2.58 cwt from the previous week and \$21.92 above year ago prices.

Category	Price Range \$	Ave Price	Top Price	Change
Rail Steers	328-330			
Fed steers	193-202	198	209	+5.8
Fed heifers	182-199	192	219	+2.7
Cows	85-122	102	171	+17.2
Bulls	114-151	136	193	+18.2
Stocker steers				
700 – 799	241-273	258	281	+13.2
600 – 699	249-301	281	320	+15.6
500 – 599	257-320	293	340	+12.2
Stocker heif- ers				
700 – 799	191-233	216	254	+10.7
600 – 699	204-249	230	264	+14.4
500 – 599	221-254	236	269	+10.8

All prices are on a hundred pound basis (cwt)

 $\mathcal{B}\mathcal{B}$

CROP MARKET

Adapted from Market Trends February-March 2023 by Phillip Shaw GFO www.gfo.ca

Corn The US is once again not the leading corn exporter in the world. For the first time since 2012/2013 Brazil exports will exceed the US for this coming year with a large portion of that going to China. In many ways, it is a natural progression of the agricultural expansion in Brazil. Obviously, with corn yields much higher than soybean yields the infrastructure will need to be developed further to make this efficient now and into the future.

While Brazilian corn production is set to increase, the drought in Argentina has taken down their corn production. The 42.5 MMT of Argentinian corn set to be produced it's the lowest in five years. At the present time only about 20% of the corn crop there is rated good to excellent.

Seasonally, corn prices tend to reach their peaks in early to mid-June and bottom out in early October.

Soybeans With the large soybean crop coming off in Brazil we have all been

waiting for the other shoe to drop with regard to price. However, with the May 2023 soybean contract closing at \$15.33 and the November 2023 soybean contract closing at \$13.78 on February 10th, these are still very good prices. Historically, one might be racing to contract these levels.

Seasonally, soybeans tend to peak in early July and bottom out in early Octo-

Wheat Wheat futures prices have shown a little bit more resilience lately as we have the lowest wheat stocks in about 15 years. There has also been dryness in the American southwest which is big wheat country. At the same time our Australian friends have a good crop

down under, which means more of the same. That is, wheat is grown almost everywhere, and global shortfalls get filled rather quickly. The big wild card of course continues to be the Russian missiles flying over Ukraine.

In Ontario wheat prices are lower than they were a month ago. It's almost hard to imagine that a new crop prices for wheat which are at approximately \$9.20 a bushel, are lower than last year. Keep in mind that what happened last year was directly related to the hot war in Russia and Ukraine. The only way to capture \$15 wheat in Ontario last year was on standing pricing orders sitting ready to hit. With the hot war continuing, those standing wheat pricing orders need to be placed.

Coming Events

- Laying Hen On Line Workshop with AL Dam OMAFRA **Feb 23** Poultry Specialist 7 to 8:30 pm
 - For more info or to register: info@indianag.on.ca, 1 800 363 0329
- Mar 2 Pikwakanagan Information session March 2 @ 6pm
 - For more info or to register: info@indianag.on.ca, 1 800 363 0329

Mar 9 Tyendinaga Farming Meeting Details to be announced For more info or to register: info@indianag.on.ca, 1 800 363 0329

Livestock Information

RAISING LAYING HENS

There has been an increased interest in keeping hens for egg production. This article and ones following will look at some of the key production phases and tips to manage your layer flock. This article we will look at growing birds and the first signs they are ready for laying.

Hens begin laying at around 5-6 months of age and can continue for 3-6 years with peak production occurring in the first two years. Most high production breeds will lay about 6 eggs each week. Assuming they've enjoyed good food and care, the young hens, called pullets, begin laying sometime between their 16th and 24th week of age.

In addition to age, the particular breed of your chickens will also influence when eggs start to arrive. Certain breeds of chickens are known to start laying eggs earlier than others, and each breed has their own average age range for egg development. Chickens that have historically been bred for the purpose of egg production often start laying eggs sooner (as early as 17 or 18 weeks old), including Leghorns, Golden Comets, Sex Links, Rhode Island Reds, and Australorps. On the other hand, heavier breeds like Wyandottes, Orpingtons and Barred Rocks are known to take a bit longer.

Are your pullets ready to lay eggs? Here's how to tell:

- Chickens will be between 16-24 weeks old
- Pullets look full grown with clean, new feathers
- Combs and wattles have swollen and are a deep, red color
- Bones in the hen's pelvis will begin to separate.

To check if the hen's pelvis bones have begun to separate, cradle the hen between your side and arm with the hen facing your back so you see its rear end. Carefully hold the bird's feet so it can't kick. Place your other hand gently on the hen's rear end. If three prominent bones are close together, don't expect eggs for a few more weeks, but if the bones have separated, expect eggs soon!

When pullets are nearing their first egg lay, their behavior changes. They may spend more time with the rooster, (not needed for egg production), crouch for breeding or investigate the nesting area. At this time, keep them in the coop for short periods of time. Place golf balls or decoy eggs in the nesting boxes to help them understand the use of the nesting boxes. Pullets like to lay eggs in privacy, and it's important to have nest boxes in place before the first egg arrives. These can be purchased or made of lumber and should be approximately 10-12 inches square and about 18-inches deep. Install one nest box for every two-three hens and place them from one to three feet above the floor. Line the nests with straw, dried grass, wood chips or even shredded paper to help keep the eggs clean.

Each nest area should have a uniform environment. After a hen lays her first egg, it's her tendency to lay in the same spot moving forward. If the hens decide one nest is preferable to the others, they may all try to use that nesting box, causing themselves stress, which can lead to egg breakage or egg eating. Consider blocking access to the preferred nest box and guiding the hens to other available boxes. Once the hens have decided the other nest boxes work just as well, allow them access to the original nest box.



Age is the first indicator of first egg lay, but daylight hours are also critical. An increase in day length is a key driver to encouraging hens to lay eggs. To do their best work, laying hens prefer at least 16 hours of light and 8 hours of dark. If your hen reaches 18 weeks of age during the fall or winter when daylight hours are shorter, then consider adding supplemental light to the coop. It only takes about 25-watts of incandescent light per 100 square feet to encourage hens to lay eggs. You can also use an equivalent wattage fluorescent or LED light for your flock. Without supplemental light, young hens may wait until days get longer in the spring to lay their first egg.

The first few eggs a hen lays may be irregular – possibly small in size, with soft shells, no yolks or double yolks – but, after a week or so, egg production should become more consistent, with peak performance at about 30 weeks of age.

You will need to switch to a complete chicken layer feed during this time. Layer feeds are formulated for chickens that are laying table eggs (those used for food). Layer feeds contain about 16 percent protein and extra calcium so the chickens will lay eggs with strong shells. Start feeding layer feeds at about 18-20 weeks of age or when the first egg is laid, whichever comes first. You also may give both laying and breeding chickens access to ground oyster shell. Some high-producing laying birds may require the extra calcium provided by oyster shell, even though the prepared diet is a complete feed. The need to feed oyster shell can be determined by shell quality. If eggs are laid with thin shells that are easily cracked or shells that are rough with almost a sandpaper feel, oyster shell may help to increase shell strength and quality. When feeding oyster shell, provide a separate feeder allowing free choice feeding.

Crop Information

NATURAL NITROGEN FIXING BACTERIA LAUNCHED IN CANADA

With excerpts from: https://www.syngenta.ca/productsdetail/envita#application https://www.corteva.ca/en/products-and-solutions/crop-protection/utrisha-n.html

Over the past couple of seasons, on-farm trial work has been done on nitrogen fixing biological products in cash crops in Ontario. These products are bacteria that have been found in naturally occurring environments and selected for their nitrogen fixing benefits. The two main products that have been launched in Ontario are Envita® from Syngenta Canada Inc. and UtrishaTM N from Corteva Agriscience. For the scope of this article, these will be the two products that will be focused on. Both Envita® and UtrishaTM N have received organic certification in Canada.

Nitrogen fixing bacteria are different than the inoculants that are normally applied to soybeans and other legume crops. The inoculants for soybeans are spores of mycorrhizal fungi, which are a type of fungi that colonizes plant roots. The mycorrhizae have a symbiotic relationship with the plant and help fix nitrogen for legume species. Though both Envita® and UtrishaTM N are registered on soybeans, the big gain is to fix nitrogen for non-legume species.

Though the objective of both of these products is the same, naturally fixing nitrogen from the atmosphere, the type of bacterium and their method of colonization are different. Envita® is *Gluconacetobacter diazotrophices*, and works within the entire plant, both leaves and roots, to fix nitrogen. It can be applied either in-furrow or as a foliar application.

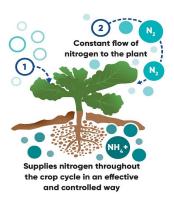
Envita® is listed for use on Canola, Cereals, Corn, Potatoes, Pulse Crops, Soybeans, Assorted Fruit and Vegetable row crops. For foliar application, ideal timing is at the early leaf stages for corn, soybeans, canola and cereals. Do not apply Envita® in extreme heat as the bacterium will not survive, and it has a rainfast of 2 hours.

The principle of Envita® is ensure that throughout the growing season, there is nitrogen available in the right place in the plant at the right time, no matter what nitrogen is available from the soil to the roots. Ultimately the goal is to form a symbiotic relationship between the plant and the bacterium that will grow with it over time. Of note, Envita® currently has a suggested retail price of \$659.78/3.78 jug which works out to \$16.50 an acre when applied at the label rate of 94.5 mL/ac.

UtrishaTM N is *Methylobacterium symbioticum*, which is a natural bacterium that fixes nitrogen from the air, and is being billed a nutrient efficiency biostimulant. Unlike Envita®, UtrishaTM N must enter the plant through the leaves, and therefore must be applied as a foliar application. It is taken up through the plant stomata, where it colonizes the plant leaf cells. The bacterium converts N_2 gas into plant available ammonium resulting in a constant supply of nitrogen to the plant throughout the growing season. Of note, the bacterium does not require any energy from the plant to complete this process.

Registered crops for UtrishaTM N include Canola, Cereals, Corn, Soybeans, Cabbages, Carrots, Lettuce, Onions, Cucumbers, Tomatoes, Grapes, Pome fruits trees & Stone fruit trees, Potatoes and Strawberries. A key to success is applying to healthy crops

with sufficient biomass that the crop has good soil coverage. For UtrishaTM N, the suggested retail price is \$620.60/5.39 kg bag, which works out to a price of \$15.51/acre when applied at the label rate of 135g/acre.



source: https://www.corteva.ca/en/products-and-solutions/crop-protection/ utrisha-n.html

As stated before, trial work has been going on for the past couple of years. Multiple Soil & Crop Improvement Associations have been completing trials on both corn and soybeans. In one Soil & Crop trial group, seven trials were completed on corn with the co-operator's standard practice (nitrogen rate, etc.) comparing Envita® to untreated plots. Though response to the Envita® was variable, an average yield response to the Envita® of 2.2 bu/ac was observed. Three trials were completed on soybeans, with an average yield response of 1.4 bu/ac to the Envita®.

A big question that looms for these biologicals is whether they can show a response in an environment where ground source nitrogen may be a limiting factor. "Can nitrogen fixation in plants compensate for lack of nitrogen fertilizer in a low N environment, or essentially replace some fertilizer N?"

Utilizing nitrogen fixing bacteria in non-legume crops has potential to provide significant benefit to agriculture. If applying these new products can replace some nitrogen fertilizer or increase yield in environments that have lower nitrogen levels (ie. Lower Organic Matter levels) then there are significant gains that can be achieved by Canadian farmers. The trial work conducted by Soil and Crop and overseen by Ben Rosser has raised some questions about consistent yield responses, and what are the potential causes of this. Questions that Ben Rosser, Corn Specialist with OMAFRA has raised include; "Is it variability in successful establishment of bacteria in plants? Is it not providing a consistent yield benefit even when established? Are there environments or hybrids very rich in N that make additional yield benefits difficult to attain?"

With the ongoing development of marketing for these new biologicals, we will hear more about these products and their best fits. With the organic certification of both, and the multiple crop species that are applicable, the expectation is that there will be excitement across multiple facets of agriculture. Trial work will have to continue to find the ideal situations for these products. The expectation is that this might be the first wave of a new "biological" spectrum coming to Canadian agriculture.

Other News

TIME TO CONSIDER SWITCHING TO A PIPELINE ?

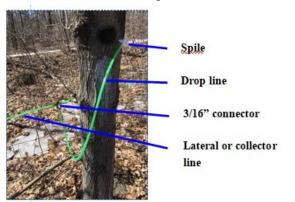
source: originally appeared in Feb 2020, written by Mark Leahy

Many maple syrup producers have small operations ranging from 5 taps to 300 and most of the operations are on a bucket system. Dumping 5 buckets regularly is not a big task, 300 buckets is more challenging. Small and large producers can benefit from a pipeline system. Once installed it requires less labour to harvest sap. A natural vacuum system encourages a larger volume of sap and less costly than a mechanical vacuum.

Recent research shows that a 3/16" pipeline is a good fit for someone considering converting from buckets to pipeline. It is less expensive than the larger 5/16" line and has stronger natural vacuum. It works well with a small number of trees in one location, a gravity system and a location without electricity.

To take advantage of the benefits of a single 3/16 line system we need at least 5 taps reasonably close together and a maximum of 25. Some slope is helpful for natural gravity flow.

A pipeline layout includes a dropline with spile and a lateral line to collect from the drop lines.



The photo above shows a dropline with spile attached with a 3/16 connector to the lateral or collector line. The tap hole is always drilled above the lateral line. The lateral line would then drain into a container or attach to a main line to carry sap to a collection area or directly to a sugar shack.

The 3/16 system uses a natural vacuum to increase yield. To create a vacuum there must be a slope between the first tap hole and collection point. A system free of air leaks is ideal to maintain the vacuum.

Natural vacuum is created in a pipeline system when a quantity of sap in the line pulls on the tap hole. If the tap hole, spile and line are properly connected external air can't enter the pipeline. The weight of the sap draws on the taphole and the more weight the more vacuum up to the maximum potential for vacuum. The weight of the sap is determined by the elevation from the top to the bottom of the line. For example 20 feet from top to bottom provides enough sap to cre-

ate significant vacuum.

Fifteen taps is ideal for simple gravity and vacuum. Five taps is minimum and 25 taps is maximum for good results in a single system. A pipeline system may have a number of single 3/16 systems with up to 25 taps, each feeding into a mainline.

The cost for a 3/16 system is about \$4/tap for materials. Five hundred feet of 3/16' tubing is about \$50. Drop lines are usually 18 inches in length and can be purchased made up with 5/16" healthy spile and a lateral connection.

Pipelines are normally designed to be left up year round. After the sap season has ended the lines are flushed, spiles removed from the tree and sealed to the lateral connector. Lines should be placed in areas not frequented by farm livestock in the off season.

GROWING ONIONS FROM SETS

source:- https://www.canr.msu.edu/resources/how_to_grow_onions_1 http://www.gardening.cornell.edu/homegardening

Growing onions from sets can be a good fit if you are just getting into growing onions, or don't have space to grow onions from seed for transplanting.

Sets are small onions grown from seed the previous year and are available from seed companies, farm and hardware stores. Each set should be no more than one-half to three-quarters of an inch across, less than the diameter of a dime. Large sets frequently go to flower and cause the bulb to stop growth, resulting in a small poor quality of the onion bulb to be harvested. Most growers pull onions that flower.

Onions grow best in well drained and cultivated sandy, loam soil. For clay soils, work in compost to loosen compaction. Heavier soils do not allow onion bulbs to grow to their potential.

Onions are heavy feeders, and do best in soils high in organic matter and optimum pH is 6.2 to 6.8. Side dress plants by lightly putting a nitrogen fertilizer alongside the plants in June.



Red Onion Sets

Plant onions early, 2 to 4 weeks before last frost date, to get as much top growth as possible. Plant 1-2" deep and space 4 inches apart for large bulbs or 2 inches apart for smaller bulbs in rows 12 - 18 inches apart. Consider wider spacing in the row in lower fertility or droughty soils.

Onions have shallow root systems and need consistent moisture and good weed control. Water weekly if weather is dry, and mulch to retain moisture and smother weeds.

Onions are finished growing when the tops fall over and dry. Leave the onions in the ground for one to two weeks for them to develop thick skin. Then dig and remove any soil clinging to the bulb, but do not wash them yet. Dry onions completely before storing. Hang them by their stems or put them in a single layer on newspaper. Do not dry in the sun. Spanish onions are very susceptible to sunburn.