Native Agri Update

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www.indianag.on.ca

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: livestock, crop, 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:

- Start Up Financing
- 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. **Application deadline for spring start ups is March 6, 2020.** 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.

IAPO ANNUAL GENERAL MEETING

IAPO's Annual General Meeting is planned for Monday, April 27, 2020.

Following up on last year's AGM held at Earthhaven Farms, this year's meeting will be held at Sheldon Berries near Lakeside.

Following lunch and a farm tour, the Annual General Meeting will start at 1:30. Complete details will be available closer to the meeting date.

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Inside

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Agribusiness

SCHOLORSHIPS FOR STUDENTS PURSUING AGRICULTURE

*source:*https://www.ontariofarmer.com/news/farm-news

Are you going to be studying or participating in an agricultural related program this year? The Canadian Agri-Business Education Foundation (CABEF) provides financial support to encourage young people to pursue an education in agriculture and food. CABEF's Pathways to Agri-Food Scholarships awards seven $2,500 scholarships annually to students entering or currently pursuing an agricultural or agri-food related program at a Canadian college, university or technical institution.

The Pathways to Agri-Food Scholarships, are funded through generous donations from the Canadian agriculture industry. **The application deadline is April 30, 2020** and information on how to apply can be found at cabef.org.

As in previous years, one scholarship will be awarded in each of the following provinces: Alberta, Saskatchewan, Manitoba, Ontario, Quebec and British Columbia/Territories. This year, for the first time, there will also be one awarded in Atlantic Canada for a total of seven $2,500 scholarships. Applicants will be assessed on a combination of their leadership attributes, and written or video response to the question "What do you consider to be the two main opportunities for the Canadian agriculture industry and which one inspires you the most?"

NEW: ADVANCING NORTHERN MAPLE PROGRAM

Are you located in Northern Ontario and looking to get a Maple Syrup operation started?

The Advancing Northern Maple Program has been announced and aims to expand the maple sector by enabling producers to increase production, grow markets, adopt new technology and create innovative maple products.

The program is a partnership with the Rural Agri-Innovation Network (RAIN), a division of Sault Ste. Marie Innovation Centre (SSMIC), the Ontario Maple Syrup Producers Association (OMSPA), Algoma Maple Syrup Producers Association and Algonquin Maple Syrup Producers Association and will have the following objectives:

- Expand maple sap & syrup production in northern Ontario,
- Adopt technologies and processes to increase productivity,
- Create innovative maple products for a domestic or export market,
- Increase marketing opportunities for the sector, and
- Increase partnerships with Indigenous people and communities to expand the sector.

What is Eligible?

All costs shall be limited to equipment or material purchases that directly allow eligible project activities to occur. Examples may include remote pumps, evaporators, reverse osmosis equipment, remote sensor technology, building materials and food processing equipment. Used equipment is eligible but must be sold from a business that focuses on equipment sales.

Funding

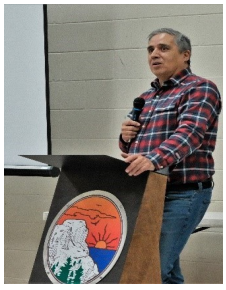
The project will assist agri-food businesses in adopting new technologies to expand production or develop new products in the maple syrup/products sector. Fund assistance will be in the form of a conditional contribution up to $20,000 at 50% cost share towards the purchase of equipment or materials for eligible activities (resulting in technology adoption for expanded production or product development).

- Up to $20,000 in Conditional Contributions
- 50% Cost Share

Indigenous Partnerships –. The project will collaborate with First Nation communities and organizations to identify projects that are in planning, underway or are scaling up that can be accelerated to expand production and adopt new technologies.

Those interested should visit http://rainalgoma.ca/maple/ or contact David Thompson, RAIN Project Coordinator at 705-942-7927 x3027 or dthompson@ssmic.com.

FIRST NATIONS MAPLE SYRUP SEMINAR



In January, the 7th annual First Nation Maple Syrup Seminar was held at the White Fish River First Nation Community Centre. The day was filled with presentations from industry professionals, first nation maple syrup producers, and maple syrup equipment representatives.

Picture Left: *Whitefish River First Nation Chief, Franklin Paibomsai welcomes participants to First Nation Maple Syrup.*

It was a great day covering everything one needed to know regarding the maple syrup industry, how to get your operation started, and some tips for getting your operation perfect for the 2020 season.

We would like to thank all of our presenters for coming and sharing their expertise as well as all the participants that came out for the day. We would like to give a special thanks to Whitefish River First Nation for being such gracious host and all the work they did preparing for the day.

Picture left: Tom Stevens, Nipissing First Nation maple producer, discussed Added Value maple products.

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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 Thursday February 13, 2020.

Changes here reflect the difference in prices from the week of December 12, 2019 to the week of February 13, 2020. Weekly reports provide prices on a per cwt basis for the week but do not include Friday sale results.

Beef and live cattle prices have taken a significant increase in all categories.

Rail grade steers are up $10 while fed steers are up $4 and heifers are strengthened by $9.

Cull cows and bulls are inflated by $14 and $16 respectively due in part to fewer numbers coming to market compared to last fall. Demand for ground beef remains strong.

Stocker steers are up $7 to $13 depending on weight category and heifers have climbed in price from $8 to $18.

Beef exports in 2019 increased by 7% to the U.S., 7% to Mexico, 54% to Japan and 17% to China compared to 2018. China is looking for another meat protein source as a result of the African Swine Flu devastation in that country. U.S. cattle reports indicate that herd expansion is over. Cull cow numbers increased by year end. 2020 however is expected to have a record beef production with the beef resulting from a peak cowherd in 2019 and increasing carcass weights. In general, worldwide demand for beef is expect to increase this year.

Category	Price Range $	Ave Price	Top Price	Change
Rail Steers	251-255			+10
Fed steers	119-151	139	184	+4
Fed heifers	126-149	140	158	+9
Cows	54-80	66	116	+14
Bulls	80-104	93	138	+16
Stocker steers				
700 – 799	177-208	194	221	+7
600 – 699	189-235	213	254	+12
500 – 599	207-247	231	267	+13
Stocker heifers				
700 – 799	132-170	155	183	+8
600 – 699	154-192	177	216	+12
500 – 599	161-202	185	225	+18

All prices are on a hundred pound basis (cwt) ML

CROP MARKET

Adapted from Market Trends Commentary for Feb-March 2020 by Phillip Shaw GFO www.gfo.ca

CORN US corn is so cheap in some areas that it is showing up in Quebec to satisfy poultry farmers who need the quality. It begs the question, how cheap can corn get in the US in this coming year? Keep in mind, the ending stocks are less this year than last year. The US needs a big corn crop to satisfy demand. There are always production worries getting there and this will present selling opportunities.

The March 2020 May 2020 corn futures spread is currently -.0425 cents which is considered sideways. Seasonally corn prices tend to trade higher through June.

SOYBEANS The phase 1 portion of the China US trade agreement came into effect on January 15th and it's likely to mean future Chinese soybean purchases when the price is right. We'll take it vs. the Chinese tariffs on US soybean exports first imposed in July.

The recent drop in soybean prices has many villains with the coronavirus being one of them. However, keep in mind the Brazilian currency has lost 8% against the US dollar since the 1st of January and Brazilian farmers have been aggressive sellers.

The March 2020 May 2020 soybean futures spread is currently -.095 cents US which is considered bearish. Seasonally, soybeans prices tend to trend up from here into July

WHEAT Wheat prices actually peaked over the last month but have been heading downward in the week preceding February 14th. The spec funds had gone long to a point where 75% were net long. This became somewhat cumbersome and as usual in those situations, they broke back going into February 14th. There is wheat everywhere, waiting in various forms to satisfy demand.

Seasonality is not a strong point in SRW wheat, mostly grown in Ontario. However, prices generally speaking top out between October and March. It's always a bit of an issue contracting wheat when it's under ice and snow in Ontario. However, the fundamentals are not as bearish for SRW wheat vs the other wheat classes. Ontario farmers are hoping for a good wheat harvest after 2019.

Coming Events

March 4 **IAPO Maple Syrup Meeting - All Saints Church, Tyendinaga**
7 pm start. For more info : 1 800 363 0329

March 9 **Ziibaakdakaan Maple Syrup Grand Opening with First Tap Ceremony.** Ziibaakdakaan Sugar House, Cape Croker Park
For more info: 519 534 0571

March 25 **Wiky Farmers Meeting - Council Chambers 6 pm start**

Livestock Information

SPRING CALVING SEASON

Many beef farmers calve their cowherd in the spring with March and April being the most common times. Here I will briefly touch on topics of interest on the calving season. Some information is adapted from articles by Glenn Selk, Oklahoma State University Cattle Emeritus Extension Animal Scientist.

Keep in mind your local veterinarian is the expert on protocols and local conditions. Experienced cow-calf farmers are also a good source of practical tips.

Be Prepared

Now is the time to locate equipment and stock up on supplies that are useful for any calving situation whether mature cows or heifers. Problems arise most often with first calf heifers.

Check the calving area for properly operating gates, clean pens and available bedding.

Put a calving plan in place with input from your vet. It is helpful if others involved at calving, particularly family members are familiar with the plan. This includes knowing where equipment and supplies are located, important phone numbers, an understanding of the birthing process and an appreciation for when help is needed

Supplies might include a lubricant such as dish soap to be used with warm water, disposable sleeves, a roll of paper towels for drying off a calf, an antiseptic, chains with handles for pulling calves, iodine for treating navels, oesophageal feeder, calf feeding bottle and a flashlight. Consider injections such as Vitamin E and selenium based on a discussion with your vet. Place supplies in a handy portable container like a 5 gallon bucket. Be sure everyone involved knows where it is located.

Signs Calving is Close

These signs include udder development (bagging up) and relaxing and swelling of the vulva. Cows will vary in the development of these signs with mature cows showing a shorter time span for bagging up than first calf heifers. This can take 2 weeks or more.

More immediate signs within 24 hours of calving are relaxing of the pelvic ligaments, depression in front of the pin bones and stiffening of the teats. Cows very close to calving may stop eating and isolate themselves.

Is Assistance Needed?

How long should a cow or heifer be in labour before assisting with the birth? This is usually between the time the water bag appears and the calf is on the ground. A normal time period is about 60 minutes for first calf heifers and 30 minutes or less for mature cows. Cows and heifers that go much longer than these times need assistance. Calves, live born from extended calving periods are often weaker and more likely prone to disease. Also cows and heifers with lengthy deliveries show heat later than normal. The bottom line; “If a heifer is not making progress 1 hour after the water bag or feet appear, examine the heifer to see if you can provide assistance. Watch mature cows for only 30 minutes before examining.” Make certain the cervix is completely dilated before attaching and pulling on the chains if necessary. If you cannot safely deliver the calf yourself at this time, call your veterinarian immediately. Difficult births will happen particularly in large herds.

Starting the Newborn Calf

The first challenge when a newborn calf hits the ground is getting it to breathe right away. Normally this is not a concern. However on occasion, particularly with a difficult birth the calf may need assistance. There isn’t time for a visit from the vet. Farmers have used a number of methods some more successful than others.

To encourage breathing clear the mouth and nasal passages of fluids and mucus. A suction bulb can assist in clearing air passages.

Next briskly tickle the inside of the nostrils of the calf with a piece of straw. Hopefully the calf will snort or cough causing the lungs to expand allowing air to enter. With breathing started the calf will pant for a few minutes. This increases oxygen intake.

Hanging the calf by its hind legs or over a gate are not recommended since these methods can restrict the movement of the diaphragm. Diaphragm activity is needed to expand the lungs to draw in air.

Colostrum Provides Immunities

A cow’s first milk contains antibodies that are passed along to the newborn calf. The first 24 hours after a calf’s birth is important. It is critical that a calf receives this first milk called colostrum within 6 hours of birth. The ability to absorb colostrum quickly declines after 6 hours. Calves failing to receive adequate colostrum in a timely manner are more prone to diseases such as scours, and respiratory diseases later in life. A "rule-of-thumb" is to feed 5 to 6% of the calf's body weight within the first 6 hours and repeat the feeding when the calf is about 12 hours old. For an 80 pound calf, this means at least 2 litres of colostrum per feeding. Immunity obtained from colostrum is an important factor determining the health of calves both pre- and post-weaning, and indirectly influenced calf growth rate during the same periods.

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Crop Information

GROWING TRANSPLANTS

source: reprinted from Native Agri Update Feb 2018

The days are getting longer and March is just around the corner which means for those who would like to grow their own vegetable transplants it's time to begin to plan the summer garden. Certainly many vegetables such as corn, beans and squash will do best by seeding them directly into the garden. However ,other vegetables such as tomatoes and peppers require a longer growing season and will need to be planted into the garden as transplants. Depending on what you are seeding, typically transplants need to be started anywhere between 4 to 10 weeks prior to planting.

Ontario Frost Dates

Location	Last Frost	First Frost
Hamilton	May 1-10	October 11-20
Kingston	April 21-30	October 1-10
London	May 1-10	October 1-10
Parry Sound	May 21-31	September 11-20
Peterborough	May 1-10	September 21-30
Sudbury	May 11-20	September 21-30
Thunder Bay	June 21-31	September 11-20
Timmins	June 1-10	September 11-15
Windsor	April 11-20	October 21-31

Seed catalogs are an excellent source of information for the vegetable gardener providing information on the plant growth habit (height and area requirements), ideal garden location (sun, partial sun, shade and moisture requirements), and the average number of days to maturity. All seed companies provide guidelines regarding the number of weeks prior to the last frost date to start transplants. Many gardeners will target a transplanting date one week after the average last frost date for their area to allow for those years with a later spring frost.

Once you've decided what to grow, you'll need to set up the area for starting the transplants. Containers can be anything from a Styrofoam cup to a purchased starting kit or recycled old planting trays. No matter what you choose, the containers must have holes for drainage and trays to catch the excess water. Growing seeds in individual cells helps to reduce root disturbances at transplanting time. If reusing old seed trays make sure to sterilize them by washing with a solution of 1 part chlorine bleach to 10 parts water and thoroughly dry them before filling with growing medium. It is best to purchase a commercial growing mix for starting transplants.

Damping off is the most common disease known and can attack a seed before it germinates however is best recognized as a rot at the base of the plant causing irreparable wilt. Sterile containers, proper drainage, watering plants from the bottom, good air circulation and not overwatering all help to prevent this disease from attacking transplants.

Step-by-step procedure for growing transplants
(*adapted from: Penn State Extension – Starting Seeds Demystified)*

- Fill containers to within ¾ inch from the top. Level and firm growing mix, moisten. Note: do not press the mix into the container too hard.
- Sow the seeds to a depth of about two times their diameter, leaving very fine seeds uncovered, label your containers as you plant. Moisten the surface with a fine mist. Place the tray in a warm place, not in direct sunlight, most seeds germinate at soil temperatures of 18 to 22˚C.
- Once seedlings emerge, place the container in a bright south-facing window, or under a fixture equipped with florescent growing lights. Leave the seedlings under the lights for 14-16 hours each day. Do not overwater: allow drying between watering, being careful the seedlings don't wilt. If growing in a window be sure to turn your containers to help your transplants to grow straight.
- Fertilize young seedlings every week. Dilute fertilizer to half strength for the first few weeks and gradually work up to full strength. Most growers use 10-52-10 for transplants.
- If you need to thin your seedlings, nip some off at the soil line with scissors. If necessary, transplant overcrowded seedlings to individual pots after they have at least one set of true leaves. Grasp the seedlings by the leaf to avoid damage to the stem.

SOYBEAN SUDDEN DEATH SYNDROME

source:https://soybeanresearchinfo.com/soybean-disease/sudden-death-syndrome/
Top Crop Manager East February 2020

Soybean sudden death syndrome(SDS) has become one of the leading soybean diseases in North America to reduce yield and its presence is increasing in Ontario. SDS has two phases - a root rot phase and a leaf scorch phase.

The SDS fungus survives the winter as spores in crop residue and soil. Early in the season, the fungus infects and grows in soybean roots. Infections are favoured by cool wet soil conditions. The SDS fungus produces toxins in soybean roots that are transported to leaves. As a result, interveinal yellow and brown blotched appear on the leaves, typically after flowering. Eventually the leaves yellow and die. In severe cases the disease can cause complete defoliation. Foliar symptoms are more severe after frequent or heavy midseason rains.

As reported in Top Crop Manager, SDS is most severe in Chatham, Elgin, Norfolk, and Essex counties. According to Albert Tenuta (OMAFRA), SDS is spreading and becoming more severe: "We're starting to see it in Middlesex, North London, and Perth, as well. Anywhere you find soybean cyst nematode, you'll find SDS as well, either immediately or soon after."

With the potential for 30% yield loss, SDS is worth keeping an eye if you're farming in the southwest.

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Other News

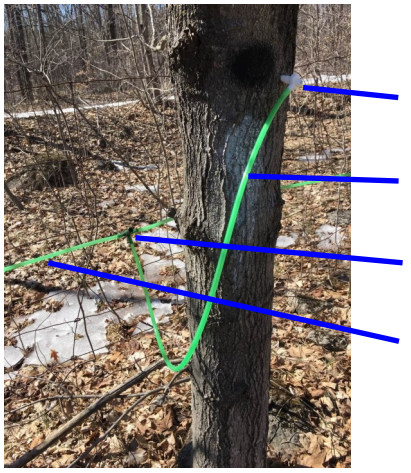
CONSIDER SWITCHING TO A PIPELINE

Many maple syrup producers have small operations ranging from 5 taps to 300. 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 sugarshack.

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 create 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

COMPARING TREE SIZE AND SAP FLOW

source: reprinted from Native Agri Update Feb 2018

Maple syrup producers often find some trees produce more sap than others. This is particularly evident for those using buckets. While there are a number of reasons for this result, tree size does have an impact on yield.

Keep in mind healthy tapping is strongly recommended. This means not tapping a tree less than 10 inches in diameter, 1 tap up to 18 inches and 2 taps for anything larger. These guidelines apply to vacuum systems especially.

Research at the University of Vermont provides some interesting results on tree size and sap yield. As most know, small trees produce small amounts of sap and research shows a 1 inch increase in tree diameter results in 2 U.S gallons more sap per tap per harvest season. A 5 inch tree produced less than half the sap of a 10 inch tree. Another reason to only tap trees 10 inches or larger! If there is a selection of trees in a bush to choose from consider tapping the larger trees and leaving the 10 to 15 inch trees as an example for another year or two of growth. For a vacuum system this means fewer, more productive taps and the ability to maintain a higher vacuum level on the line. For producers with buckets it means more efficient use of available buckets, less effort and distance travelled collecting with a larger volume at each stop.

Producers with a young bush may be limited to smaller trees in the short-term. It is also suggested that a thick stand of young trees should be thinned out to encourage faster growth of the remaining trees.

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If your community or organization has a project or initiative involving First Nations food and/or farming you'd like to share with others in the newsletter, contact IAPO at info@indianag.on.ca. for details. If accepted, articles will be included free of charge.