Native Agri Update

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Inside

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Agribusiness

WRAPPING UP THE YEAR

As we have come to the end of another year, we look back at a year that was still plagued with the continuation of the pandemic, more restrictions, working from home and less travel. Moving into a new year we are always optimistic, enthusiastic and have hope for the coming year. We get motivation in the thought that this is the year where we get over the pandemic and move back into a regular routine.

With that said, we have completed another year and there is work to be done to set our farm businesses up for success. Let's start 2022 off on the right foot.

The two financial statements most useful to farms are an accrual income statement and a balance sheet. The first step to completing accruals is recording year end payables, receivables, & inventories. Year End to do list:

- **Expenses and Payables** - Spend a day or two ensuring all expenses are paid before December 31 and make a list of those expenses that will be carried over into the New Year, these are your Accounts Payable for year end. Accounts payable are expenses that have been incurred for the business but have not been paid for. This could include a variety of items such as drying and storage charges, accrued interest on operating and term loans, rent, and repairs.
- **Revenues and Receivables** - Deposit all income from sales and avoid keeping those uncashed cheques laying around. i.e. Accounts receivables. Accounts receivable might include custom work which has been performed but payment not received. You may be expecting a cheque from an insurance claim that has not been received. Prepaid expenses as of December 31 would include inputs and supplies that have been purchased and paid for but are for the following year's crop. The most common items are seed, chemicals, fertilizer, fuel and feed. Fertilizer and nitrogen that have been applied in the fall for next year's crop are considered prepaid expenses.
- **Inventories** - Your list should be detailed and include such items as seed, fertilizer, hay in the barn, grain, livestock, fuel in the tank in addition to stored crops like unsold maple syrup and so on. Once a list is completed then values are attached to each item. Since machinery is usually a significant asset for most producers, it would be prudent to have a detailed machinery listing with individual valuations rather than just one total value. Machinery dealers can assist in estimating values for individual machinery. Once a list has been compiled it only needs to be updated at the end of each year.

With this to do list completed, you are well on your way to completing your farm financials and going from a "cash" basis to accrual income and expense statements. Accrual statements are the most accurate method of determining your farm profitability. To arrive at an accrual income statement, adjustments to income and expenses are made based on differences in farm values, for grain, livestock and other production inventories, accounts receivable, accounts payable and prepaid expenses. The exact dollar amounts for these items are used in preparing your balance sheet as well. Accrual adjustments are easily made once you have made a list of payables, receivables and inventories.

With your year end to do lists done, you will be one step ahead entering 2022. This allows you to take some time and make financial and production plans for the coming year.

STARTING OR EXPANDING YOUR BUSINESS?

The First Nations Business Start-up and Expansion Program (FNBSEP) offers financing and funding for First Nation entrepreneurs, businesses & economic development corporations.

Funding is provided through the Indigenous Economic Development Fund by the Ministry of Indigenous Affairs and extends until March 31, 2022.

Financing, including term loans and working capital, is tailored to meet business needs and applications will be considered for full project financing, partial financing or leveraging to complement other financing or funding. Areas of financing include: Start-up, Expansion &Acquisition.

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

INTEREST RATE OUTLOOK

source: U.S. Federal Reserve Mark Rendel, Globe and Mail Dec 15, 2021,

As Mark Rendel of the Globe wrote "The strength and persistence of consumer price growth has caught central bankers around the world by surprise and made their policies of maintaining rock-bottom rates look increasingly out of touch. The Bank of Canada has said it expects to start raising rates in the middle quarters of next year, perhaps as early as April."

As reported in the Globe "Wednesday's announcement from the Fed (U.S. Federal Reserve), suggests that both central banks will move at about the same pace with rate hikes," said Josh Nye, senior economist with the Royal Bank of Canada. "This could make it easier for the Bank of Canada to raise rates – moving its rates well ahead of the Fed could push up the Canadian dollar, making exports less competitive. "The Bank of Canada is always going to be cognizant of what the Fed's doing with monetary policy in the U.S.," Mr. Nye said.

With interest rates starting to trend up, when reviewing farm financing, taking a look at fixed rate/variable rate options might be worth considering.

CL

Market Information

BEEF MARKET WATCH

Prices are courtesy of the Beef Farmers of Ontario Weekly Market Information Report for the week ending Thursday December 2, 2021. Changes in this chart reflect the difference in prices from the week of October 11, 2021 to the week of December 6, 2021. Weekly reports provide prices on a per cwt basis for the week but do not include Friday sale results.

Auction markets reported trade as active with prices steady and firm to fully steady to stronger, up $3.00-$4.00 cwt in spots. The market ended the week trading steady. The Ontario railgrade market was extremely limited in volume this week as sellers hold out for higher prices.

Majority of the trade was at $270.00 dressed for steers with a few sales noted at $274.00-$275.00. Heifers were reported at $269.00-$270.00, which is steady. Trade this week is scheduled for delivery in one to three weeks. This week's price is up $38.00 cwt from this time last year.

The fed/cull cow market saw an extremely large offering of 3,766 head sold through auction markets this week, up 932 from last week and 727 above this time last year. Volumes typically increase the first couple of weeks in December but this week was exceptional. Approximately 3,300 of the cows sold were dairy cows due to a 1% decrease in production quota coming into effect.

Cows sold from $42.72-$63.76 cwt, averaging $52.06 down $3.50 from last week and $9.34 easier than year ago prices. Auction markets reported trade as active and steady on strong demand for the good beef cows to start, with plainer types and dairy breeds selling selectively steady.

Category	Price Range $	Ave Price	Top Price	Change
Rail Steers	270			
Fed steers	146-169	159	186	+1.3
Fed heifers	145-160	153	169	+2.7
Cows	43-64	52	138	-17.3
Bulls	72-94	83	123	-12
Stocker steers				
700 – 799	150-199	184	215	-5.4
600 – 699	163-217	197	234	-3
500 – 599	175-234	209	260	-10.5
Stocker heifers				
700 – 799	136-176	158	201	-12.6
600 – 699	131-184	167	203	-4.8
500 – 599	147-196	173	215	-9.2

All prices are on a hundred pound basis (cwt) *BB*

CROP MARKET

Adapted from Market Trends December 2021 & January 2022 by Phillip Shaw GFO www.gfo.ca

Corn Mexico has been a big purchaser of US corn and hopefully this continues. The US is always the major supplier for the world of corn even though Brazil is increasing its production. At the present time the first Brazil crop is doing well with a little bit of dryness in the South.

Ethanol production in the United States has been robust as margins to crush corn into ethanol have been quite high. This is driving the local corn price in many parts of the United States where there is an ethanol presence. As it is, ethanol plants are at full capacity.

Seasonally, corn futures prices tend to peak in early June and bottom in early October, but it's important to keep in mind the other production season going on in Brazil.

Soybeans The next 30 to 60 days represent a captive market, where American soybeans are the only supply left on and the planet for willing buyers like China. After this, Brazil soybeans should be coming onstream even though the first beans down there will be used for their domestic demand.

As of mid-December, the weather for the soybean crop in Brazil has been benign meaning that we're looking at one of the biggest crops ever coming out of the southern hemisphere. It's not like this is a surprise, as the USDA has been predicting 144 million metric tons coming from Brazil this year. Brazil weather will have to continue to be kind to count all those soybeans. Seasonally, soybean prices tend to peak in early July and bottom in early October but as always, we need to watch that South American crop.

Wheat Wheat futures have declined over the last few weeks but are still at elevated levels and demand is very strong. As each wheat class has its own supply and demand table, it will be important to dial down into growing conditions to further determine the price of each wheat class. The geopolitical concerns with Ukraine and Russia have the potential to disrupt this market.

In Ontario, we have about 750,000 acres of wheat planted, but of course how much of that gets to the finish line next July and August is another question. With cash prices in the $9 and $10 level previously for Ontario wheat, that's all good. We will see where we are come spring.

Coming Events

January 19th: **Introduction to Poultry Workshop -**7p.m
For information or to register: workshops@indianag.on.ca

Jan. 18 -Mar. 22: **Online Farm Planning Course -**7:30p.m.
Visit: https://efao.ca/event/online-farm-planning-course-22/

Livestock Information

TIPS FOR WINTER FEEDING LIVESTOCK

sources: article written by Heather Smith Thomas, Salmon, Idaho

During winter, cattle, sheep and other livestock require increased levels of nutrients and additional calories to stay warm. This is above and beyond normal requirements for body maintenance and growth. If they graze and snow covers their pasture—or grass is nearly gone—winter feeding is necessary. This article provides tips on how to get them the food and water they need.

Consider forages first. Forage must be high quality with adequate protein, digestible fibre and minerals. If forage quality is poor, you may need to provide a supplement. Ruminants (cattle, sheep and goats) create "energy" from digestion of forage (complex carbohydrates). But they also need adequate protein to feed the rumen microbes that help digest the forage. If forage (winter pasture or the hay you feed) is low in protein, provide the necessary protein with a pelleted concentrate or some higher quality hay. When winter feeding livestock, forage is better than grain for ruminants because digestion of roughage in the rumen involves fermentation (by rumen microbes), producing heat in the process. This "heat of digestion" helps the animal stay warm in cold weather.

In really cold weather, livestock require more forage to maintain body heat. Appetite increases. Feed them as much forage as they will clean up. Cows can do well on low quality roughages such as straw or mature grass hay (and consume more in cold weather) as long as they have adequate protein to go with it. But sheep won't eat coarse, mature hay. If you feed twice a day, feed the biggest portion in the evening so animals have adequate food through the long night when temperatures are coldest. They need feed in the rumen all night to keep producing body heat. During very cold weather, bed animals really well. The extra straw can be used as feed when required.

When winter feeding, provide hay on grass or snow—not on mud or bare ground—and choose a new, clean place every day. Livestock won't eat muddy hay or hay that has been stepped or pooped on. Spreading it out on clean areas will keep livestock healthier. Feeding in a confined area creates more risk for health issues, but you can reduce the risk somewhat if you use feed bunks and feeders to keep hay clean.

Often, it's best to allow livestock continual access to forage in winter. If you have stockpiled pasture (forage left ungrazed, to grow tall before winter), livestock can utilize it during an open winter. Also consider windrow grazing which is leaving hay in windrows to eat in winter. Bale Grazing is leaving round bales in the field or setting them in the feeding area to allow livestock to eat free choice after you remove strings or net wrap.

Make sure water sources don't freeze in winter. Livestock need adequate amounts of clean water or plenty of snow and

younger livestock in particular will need a continual supply of fresh water.

During cold and wet and windy weather, livestock may need close to a 100 percent increase in energy requirements to maintain normal body temperature and functions. However, be cautious with sudden dietary changes with livestock.. All feed changes should be made gradually. Although energy increases are necessary during cold weather, all livestock do better if they have sufficient body condition. Body condition, also called fat cover or body reserves, can be assessed in all species of livestock using a process called body condition scoring. On a score of 1 (very thin) to 5 (fat) you can evaluate groups of livestock and adjust feed to maintain or increase body fat cover. Aim for a score of 3-3.5. Thick winter hair coats and fleece can hide poor body condition, so body condition scoring may also hands-on of livestock if practicable. It takes a lot more feed to maintain a thin animal than a fatter one.

How you feed livestock during winter makes a difference. You can keep animals healthy, happy and comfortable or let them be cold, miserable and losing weight. This is especially important for pregnant animals so they'll have a healthy gestation and give birth to strong, healthy offspring. It's also important for young, growing animals so that they won't be set back during cold weather. If you have better hay on the farm, considering saving some for cows and ewes late in pregnancy or early lactation.

Hay Storage Considerations

How hay is stored after harvesting has been extensively researched over many years. The average percentage of spoilage and dry matter loss after 6 months of storage is summarized in the table below.

	Bare Ground	On bare ground, covered		
	No Cover	Tarp	Wraps	Roof
Average Spoilage & Loss	27%	13%	13%	5%

Adopted from Iowa State University Extension and Outreach

IAPO'S HAY ANALYSIS AND RATION FORMULATION PROGRAM

IAPO is offering to take a hay sample for producers and have it analyzed free of charge (some limits apply). Based on your hay results, we'll recommend a balanced ration to keep your herd or flock healthy and productive. The ration will show the amount of hay needed per day. The amount and type of salt and mineral will also be indicated. If hay quality is poor, a grain supplement may be recommended. Contact IAPO if you'd like a ration done for your herd or flock. ***BB***

Crop Information

WHY YOU SHOULD CARE ABOUT SOIL ORGANIC CARBON

source: http://nmsp.cals.cornell.edu/publications/factsheets/factsheet91.pdf, Eli Corning, Amir Sadeghpour, Quirine Ketterings, and Karl Czymmek, 2016. https://agriculture.canada.ca/en/agriculture-and-environment/soil-and-land/soil-organic-matter-indicator, Agriculture Canada, June 2021.)

Soil organic carbon (SOC) is the carbon component of organic materials found in the soil that originate from living tissues (such as plant shoots and roots, microbes, fungi, etc.). SOC makes up the largest component of soil organic matter (more than 50%), and because of this, soils that are rich in soil organic matter are also rich in SOC.

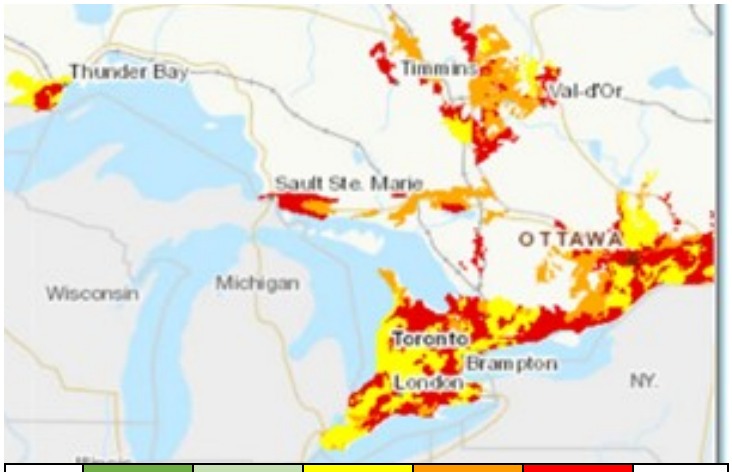
SOC is regularly used as a key indicator of soil health as it has positive impacts on the biological, physical, and chemical characteristics of soils. There are many **soil health benefits** associated with SOC, including:

- **Improved soil structural stability and reduced erosion:** SOC helps soil particles (clay, silt, sand) bind together to form soil aggregates. Aggregates protect SOC from microbial decomposition by surrounding SOC with soil particles. Aggregates also protect the soil from both wind and water erosion due to their strong binding characteristics.
- **Improved water infiltration, retention, and aeration:** Soil aggregation aided by SOC creates macropores between soil aggregates and micropores within soil aggregates. Macropores allow for greater water infiltration and soil aeration, while micropores increase the water holding capacity of the soil.
- **Decreased nutrient leaching and increased nutrient availability:** SOC has a high cation exchange capacity, meaning it can hold a large amount of positively charged cations. This is important as many nutrients that are required for plant growth (ex. magnesium, calcium, potassium, etc.) are positively charged. Therefore, soils that can hold more cations will experience less nutrient loss due to leaching and will provide more accessible nutrients to plant roots.
- **Greater soil biodiversity:** Carbon is the main food source for many microbes in the soil, so increasing SOC subsequently increases microbial diversity and overall soil biodiversity.

Additionally, SOC can also benefit other aspects of food production, including:

- **Crop production**: Improved crop productivity, potentially higher yields and crop quality over time.
- **Ecosystem health:** Lower levels of carbon dioxide released into the air (less greenhouse gas emissions), healthier ecosystems with higher biodiversity.
- **Community Health:** Increased food security due to greater resiliency to extreme weather events (such as drought), improved fertility and higher yields.

Soil organic carbon change in Eastern Canada, 1981 to 2011



Legend:						
	> 1,200 kg ha	600 to 1,200 kg ha	-600 to 600 kg ha	-1,200 to -600 kg ha	< -1,200 kg ha	Not assessed

source: https://agriculture.canada.ca/en/agriculture-and-environment/soil-and-land/soil-organic-matter-indicator

While SOC stocks may take years or even decades to build up, poor agricultural management practices will continue to degrade SOC over time, and the importance of SOC should not be ignored. However, a large proportion of the agricultural land in Ontario has seen decreases in SOC over the last 30 years.

One of the major causes of SOC decreases in many parts of the province has been a change in land-use – pastures and forages are being replaced by cereal crops and oilseeds, usually grown in annual, monocrop rotations. However, there are many ways to improve SOC levels in crop production, as well as in vegetable and fruit production, animal production, and in your local or home garden.

Conservation tillage – Conservation tillage like strip tillage, ridge tillage, and no-till decreases the amount of carbon that is lost to the atmosphere as CO_2.

Cover crops – Cover crops are key for SOC storing/sequestration as they increase the amount of carbon that is added to the soil via root and shoot biomass.

Crop selection – Perennial crops produce biomass year-round that is left in the soil a source of organic carbon. Annual cropping rotations can also build SOC if diverse, high organic matter producing crops are used. For example, introducing winter wheat and a cover crop into a soybean-corn rotation can increase SOC over time.

Residue management – Leave as much plant residue on the soil as possible! Residue not only helps maintain SOC, but also helps to prevent soil erosion and maintain soil health.

Manure and compost – Adding manure and/or compost to the soil can increase SOC stocks over time – especially in low-residue-producing systems such as vegetable production.

SC

Other News

SEASON EXTENSIONS

Sheldon Berries High Tunnel - Fall bearing Raspberries

On December 8, 2021, IAPO hosted another of the regular workshops. The High Tunnel and Hoop House Workshop highlight two farms' approach to extending the growing season. Interest in high tunnels and hoop houses continues to grow across the province. This topic is timely in light of food security concerns. The more remote areas of the province and those where ordinary cropping practices are limited by climate have shown great interest in exploring these productions options.

Two family farms shared how they are successfully using these approaches in their operations.

Peggy Sheldon of Sheldon Berries, Lakeside Ontario gave a very informative presentation on their operation and how they have extended their growing and harvesting season on raspberries by using high tunnels.

AG'S produce in Emo, Ontario located in the Rainy River District, took us from start up in 2008 to present day operations. Dealing with severe cold winters and springs they start planting in March and have fresh produce to the local market in early May.

Big thank you to both the Shelodons and the van Rozens for sharing their farm stories.

The following information is taken from the introduction portion of the workshop and briefly identifies and explains types of structures that can be used for extending the growing season and some of the benefits for considering their use.

We use greenhouse like structures in the Northern climate to extend our growing season. The types of structures used include: greenhouses, high tunnels & hoop houses row covers, low tunnels, caterpillar tunnels, .

High tunnels & hoop houses are simple greenhouse like structure over bare ground without the elaborate heating and cooling system of a greenhouse. Usually designed to rely on passive solar heat and passive ventilation.

Cabbage Transplants—Hoop House

Benefits Of Using A High Tunnels and Hoop Houses:

- extended growing season – earlier planting
- climate control- protection from frost, wind, rain
- production control – building is covered therefore you must control irrigation & ventilation
- flexibility – of crops to be grown- you can adapt quickly to local market need
- flexibility – location - this is not a permanent structure thus allowing you to relocate if needed
- flexibility - machinery use - most high tunnels use existing soil for production therefore allowing use of a rototiller for cultivation . End doors and arched roof have enough headroom to allow use of a tractor if needed.
- startup cost – price is lower when compared to a greenhouse.
- simple production system - no/low technology,
- land/soil based growing most often

A. G.'s Produce, Emo Ont

RT