



Native Agri Update

No. 397 December 2022

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Season's Greetings

**Wishing you a safe and
happy holiday!**

- IAPO Board of Directors

Holiday Hours:

**IAPO will close for holidays at
2:30 on Friday December 23,
2022 and will reopen on Tuesday
January 3, 2023 at 8:30 a.m.**

Agribusiness

THE ECONOMY AND AGRICULTURE ENTERING 2023

They say, time flies when you are having fun. I am not sure if it's just when you are having fun or if it just flies all of the time because here we are, at the end of another year.

The end of a new year always brings so much optimism and hope, as well as goals for the coming year. With that said, the past few years have been anything but ordinary. Of late it seems we have been entering each coming year with more questions and going concerns then we have had resolutions and goals.

Coming out of the pandemic we did have some optimism, as we all believed we had got past the health concerns and scare of economic shut down. Little did we know we would be walking into an economic down turn being caused by the increasing rate of inflation not only across the country but around the world. As we all have now learned the only way to stop the inflation rate from continuing to rise is by increasing interest rates.

Inflation Rate (%)										
Year	2021	2022				2023				2024
Quarter	4	1	2	3	4	1	2	3	4	1
Canada	4.7	5.8	7.5	7.2	6.7	5.4	3.3	2.9	2.4	2.2
U.S.	6.7	8	8.7	8.3	7.4	6	4.2	3.6	3	2.6

As of October, the inflation rate in Canada still remained at 6.9%, well above the rate of 2% that the bank is targeting annually. In an effort to cool inflation the bank of Canada has raised interest rates 400 basis points to 4.25% which means a prime rate of 6.45% at all the large financial institutions. This only means rates in the high 6 percent to 7 percent and higher for the everyday consumers. Makes you think twice when looking to upgrade equipment or even purchase an item on a Line of Credit.

Interest Rate (%)										
Year	2021	2022				2023				2024
Quarter	4	1	2	3	4	1	2	3	4	1
Canada	0.25	0.5	1.5	3.25	4.25	4.25	4.25	4.25	4	3.5
U.S.	0.25	0.5	1.75	3.25	4.5	5	5.25	5	4.75	4.5

Through 2022, we watched strong inflation rise and still experienced many disruptions in supply and demand for many day-to-day products. This only saw prices on items go through the roof. Fuel has been up with diesel and we are still seeing very high prices for fertilizers, seed inputs and many more items we all use every day. With all of the cards seemingly stacked against us, how do we better prepare for the new year?

Bookkeeping and Farm Financial Reporting

Know your numbers. If you are up to date regarding your

farming operation you can make much better decisions going forward. For example, knowing all your current inventories and stock you will know when you can skip purchasing high priced items and also know where you may have a little wiggle room. As well with financials completed you will have a better understanding of your current farm position and how to better manage the coming year with rates so high.

People are purchasing more locally grown products

With everything that happened during the pandemic and now the shortage of products coming from abroad many Canadians are looking to buy local with "79.5% of Canadians willing to pay some kind of premium for locally grown produce," (foodincanada.com). Look at how your farm can take advantage of this trend and start making extra cash selling locally, to your neighbours and the surrounding area.

Funding and support programs

There are many agricultural support programs out there. IAPO, for instance, has multiple programs to better aid farmers with their current farming operations. Make sure to take a look and know the programs that are available and use them to your advantage in the new year.

With a new year ahead of us, we wish you all the very best and always encourage you to reach out to IAPO for any farm questions or support.

FNBSEP FINANCING & FUNDING

Thinking of starting or expanding your farm?

FNBSEP provides business financing and grants to qualified First Nation farmers & businesses. Financing includes term loans and working capital tailored to meet farm business needs. The program is available to support qualified First Nations farm and agribusinesses across Ontario. It is also available to support qualified First Nations businesses in all sectors in South Central and Eastern Ontario

Areas of eligible financing include:

- Seed Capital
- Start-up and Early Stage Loans
- Expansion Capital
- Business Acquisition

Qualified businesses are eligible for financing of up to \$100,000 and grants of up to \$10,000. To qualify, applicants must demonstrate economic viability, as well as, the need for FNBSEP funding. Applications for the program will be accepted until December 31, 2022

For more information including complete eligibility requirements or an application for please contact IAPO,

I-800-363-0329 or info@indianag.on.ca



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. **CL**

Market Information

BEEF MARKET WATCH

Prices are courtesy of the Beef Farmers of Ontario Weekly Market Information Report for the week ending Friday, December 2nd, 2022. Changes in this chart reflect the difference in prices from the week of October 10th, 2022 to the week of November 30th, 2022. Weekly reports provide prices on a per cwt basis for the week but do not include Friday sale results.

449 fed steers and heifers sold through auction markets this week, up 117 head from the week before and 115 more than this time last year.

Fed steers sold from \$181.04-\$194.05 with a weekly weighted average price of \$189.86 up \$4.82 from the previous week and \$30.65 stronger than year ago prices.

Fed heifers ranged from \$181.79-\$190.84 averaging \$187.32 up \$2.94 from the previous week and \$32.47 higher than last year at this time. Auction markets reported trade as steady to \$1.00-\$2.00 cwt higher and up \$2.00- \$3.00 on the well-fed cattle. The market was topped this week at \$222.00 cwt.

Larger volumes of 2,806 fed/cull cows sold through auction markets this week, up 361 head from the previous week but still 960 fewer than the same week last year. Cows sold from \$72.47-\$106.34 with a weekly weighted average price of \$87.12, up \$0.87 from the week before and \$35.06

stronger than year ago prices.

Category	Price Range \$	Ave Price	Top Price	Change
Rail Steers	320			
Fed steers	180-192	187	222	+2.8
Fed heifers	182-191	187	206	+14
Cows	72-106	87	178	-12.6
Bulls	97-129	115	154	-18.2
Stocker steers				
700 – 799	182-254	228	280	+9
600 – 699	199-271	243	305	+8
500 – 599	205-293	261	322	+4
Stocker heifers				
700 – 799	154-221	195	261	-4.6
600 – 699	165-124	201	277	-4
500 – 599	163-251	213	292	-1.9

All prices are on a hundred pound basis (cwt)

BB

CROP MARKET

Adapted from Market Trends December 2022 - January 2023 by Phillip Shaw GFO www.gfo.ca

Corn Is it possible corn prices will fall apart, or will they stay the course? The USDA set corn ending stocks at 1.275 bbu, which should serve as a lever against prices drifting any lower. There is good demand, and this ending stocks number is very low historically. Looking ahead, good weather and a good US growing season in 2023 likely is the only way those corn ending stocks increase.

One facet of corn demand which has been lagging is exports, which are down 48% from a year ago. At a certain point, even with Brazil corn cheaper, it will be back one of these days. It won't necessarily be from China which has struck its own corn agreement with Brazil. Mexico and other countries will surely need the corn. However, Mexico and the US are currently in negotiations regarding Mexico's desire for no more GMO corn imports. The Americans are threatening to invoke USMCA. The story will continue.

Seasonally, corn prices tend to peak in

early June and bottom out in October.

Soybeans Weather is certainly in the mix when it comes to the soybean price in mid-December and as we go into January. Argentina has been hot and dry. The market has that dialed in at the moment and South American weather will continue to be a concern.

Seasonally, soybean prices tend to peak in early July and bottom out in early October.

Wheat Wheat prices have dropped over the last month, something which was hard to understand. World wheat stocks are at very tight levels and the US crop needs moisture.

In fact, the US winter wheat crop is in very rough shape. The Australians have had a good crop down under and we know there is a lot of wheat in Russia. As is, the agreement between Ukraine, Turkey and Russia continues with lots of grain being moved out.

Statistics Canada is estimating that the Ontario winter wheat crop planted this fall at 1.344 million acres. This is up 44.5% from the 930,300 acres planted in the fall of 2021. This will be the biggest crop in recent Ontario history, the 2007/8 crop came in at 1.275 million acres. This should give wheat producers quite a bit to think about as they go over winter regarding pricing.

Coming Events

- Jan 3 & 4** **Ontario Ag Conference - Ridgeway and On Line**
For more info: <https://ontarioagconference.ca/>
- Jan 8** **Pasture Management - Planning for 2023 On Line Workshop**
For more info: workshops@indianag.on.ca, 1 800 363 0329
- Jan 17 & 18** **Youth Agricultural Forum - North Bay & On Line**
For more info: lynn.moreau@anishinabek.ca
- Jan 20** **Birch Island Maple Syrup Meeting**
For more info: workshops@indianag.on.ca, 1 800 363 0329
- Jan 26** **FNWE Workshop - Location TBA**

Livestock Information

RAISING LAYING HENS

There has been an increased interest in keeping hens for egg production. This article, and ones in coming newsletters, will look at some of the key production phases and tips to manage your layer flock.

The main things to consider when raising layers are the type of birds, feed, and housing. Realize that if you want eggs and begin with chicks, it will be about 6 months before you get any eggs. It is best to have a plan before you begin your poultry project. Consider these things in your plan: your availability for day-to-day care for the flock, housing and coop locations, managing birds year-round in colder climates, predator control, equipment needs like brooders, feeders and waterers, feed and water supply, bedding and manure, basic husbandry knowledge about layer birds, flock health and biosecurity.

Some breeds are valued for laying eggs, and others, called "dual purpose", are used for both meat and eggs. Great egg-producing breeds include White Leghorns, Rhode Island Reds and Stars. Dual-purpose breeds that also lay well include Plymouth Rocks, Wyandottes, Marans, Australorps and Orpingtons. You get the best of both worlds- eggs and meat with dual purpose birds. However, remember that these birds do not lay as well or grow as fast as meat birds. You can source your chicks or ready to lay pullets from most feed supply stores.

Managing a small layer flock can be divided into three different stages: Brooding, growing and egg production.

What is Brooding?

Generally considered the time from receiving day old chicks to 14 days of age. Chick survival is dependent on how quickly they adjust to their new location. It's also the time of rapid development. Brooding is the same no matter what type of production you are doing (organic, free range, etc.)

Receiving your chicks is an exciting time for you and it is good to be prepared. How much room you will need for the chicks depends on whether you plan to raise the chicks in the same pen they are brooded in. For 20 chicks, 16 square feet is more than enough space to see them through to maturity. If the birds are to be raised and brooded in the same pen, they will not require the entire space for the first week or two. You can use a circular enclosure to section off an area within the pen so heat from the brooder is efficiently used.

Brooding plastic or cardboard enclosures and litter materials can be purchased at a local feed store. To section off an area, use a circular brood ring about 3-4 feet in diameter with enough overlap that it can be expanded as the birds get older. A circular brooder is preferred as chicks will huddle when they are cold and can pile up by crowding in the corners. Chicks that end up on the bottom of the pile will be smothered, but the circle will prevent the chicks from wandering away from the heat source and will discourage piling. The enclosure will also prevent floor drafts if adequate shavings or litter material is used.

Always use a thermometer when setting up for chicks using a heat lamp. Aim for a chick level temperature of 92-95 degrees F for the first week, then drop the temperature by 5 degrees a week. Once the chicks begin to feather out, the temperature may be dropped rapidly, saving energy. Good ventilation is important. The area should be light and airy, without drafts. After placing the chicks, watch them and adjust heat (the height of the heat lamp) to the right temperature based on their need.

Feed and Water.

You can purchase starter feed from a local farm store. A starter feed should contain 20%-24% protein. It will be in a crumble texture and well balanced to meet the chicks' nutritional needs. Water needs to be clean and potable. Waterers need to be cleaned daily. To encourage the chicks to eat, place feed in feed trays and then place the chicks on top of the feed. Feed trays can be any low-sided object like egg flats, pie tins, the cut off bottom of a milk jug. You can also place the feed on newspaper. Remove the feed trays in a few days, after the chicks are eating well. Place your feed pans close to the heat source, allowing them to find the feed and still stay warm. For the first week, fill the feeders full. This will help the chicks find the feed. For the second week fill feeders $\frac{3}{4}$ full and no more than half full thereafter. This will help to prevent the chicks from wasting feed. Provide enough feeder space and watch the birds to make sure they can all eat at once.

So, here is what you will require for brooding chicks: **Chick brooder guard and area, chick brooder heat lamp,** (Unless you have a complete brooder that includes a heat source, you'll need a heat lamp with a 250-watt bulb to keep the chicks warm. It's a good idea to buy two bulbs so you have a backup in case one burns out. Chicks will die if they get too cold)



Chick Waters Simple Mason jar bases will suffice for chick waterers for the first week or two. You'll find as chicks grow, the jars will have to be refilled more frequently. Try using two half-gallon Mason jars with bases per 25 chicks and refilling every two or three days. The bases should have a very small trough that the baby chicks can access without falling in.

Chick Feeders -Chick-sized feeders are helpful for the first week or so. The structure allows for the chicks to easily reach the feed without allowing the chicks to walk through and contaminate the food supply. One feeder per 30 chicks.



Chick Bedding Baby chicks need bedding, just like older hens. Pine shavings are best.

BB

Crop Information

HOW TO TELL IF YOUR SOIL IS NUTRIENT DEFICIENT

sources: OMAFRA Fertility Handbook; Publication 611 (3rd Edition); Understanding the Numbers on Your Soil Test Report L. Espinosa, N. Slaton, M. Mozafari University of Arkansas.

Healthy plant growth and development is highly dependent on soil nutrients. When nutrient levels in the soil are too low, plant growth, reproduction, and development can be impacted. As such, understanding the signs and symptoms of poor soil fertility in our crops is key to helping us fix any nutrient problems and improve crop yields.












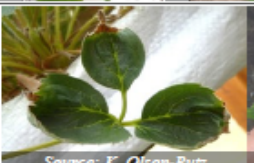

There are 18 nutrients that are considered essential (or necessary) for plants to grow and develop. These essential nutrients are divided into two categories: macro- and micronutrients.

ents.

Macronutrients (C, H, O, N, P, K, Ca, Mg, S) are nutrients that plants require in large quantities. Micronutrients (B, Cu, Fe, Mn, Zn, Mo, Cl, Co, Ni) are nutrients that plants require in small quantities. With the exception of C, H, and O (which are supplied to the plant via oxygen and water), essential nutrients are supplied to the plant via the soil. The rest of this article will focus on the soil-supplied macronutrients and their role in plant growth.

Nutrient deficiencies and/or imbalances may be identified visually (see table below) or via a soil test. However, regular soil testing is the most effective way to track soil nutrient levels and ensure that the right amount of each nutrient is added to the soil. Soil tests can help prevent both over and under-application of fertilizers, helping you save both money and time.

Role of Macronutrients in Plants and their Deficiency Symptoms:

Nutrient	Roles of Nutrient in Growth and Development	Optimum Soil Level/Range for Crop Growth	Deficiency Symptoms	Examples of Deficiency Symptoms
Nitrogen (N)	Chlorophyll production (helps convert sunlight to energy), key component of proteins, amino acids, and enzymes.	- Varies from crop to crop	- Pale or yellowing plant/leaves - Early leaf death in older leaves - Stunted plants	 Source: CIMMIT  Source: APS Digital Image Collections
Phosphorus (P)	Photosynthesis (converting sunlight to energy), DNA structure, energy storage and transfer, creating proteins and carbohydrates.	- Critical Limit* = 20 ppm - P > 60 ppm is high and no fertilizer should be added - Deficient = ≤ 15 ppm	- Reddish/purple leaf colouring (starting on older leaves) - Dark-green, slow-growing plants - Stunted growth	 Source: Active AgriScience  Source: Clayton Harder
Potassium (K)	Root uptake of water, stalk strength, photosynthesis, disease and insect resistance.	Critical Limit = 120 ppm - If K > 180 ppm, no fertilizer is required - Deficiency value varies by soil type	- Yellowing (chlorosis) or browning (necrosis) that typically shows up in older leaves first	 Source: Bobby Golden  Source: Jake Munroe
Magnesium (Mg)	Chlorophyll structure, transformation of molecules into proteins, activation of enzymes.	- Optimum = 100-500 ppm - Deficient = ≤ 20 ppm	- Pale-green to yellow colouring between leaf veins starting in older leaves - Reddish/brown spots or discolouration	 Source: University of Kentucky  Source: OMAFRA
Sulfur (S)	Nitrogen fixation, seed and chlorophyll production, enzyme and vitamin development.	- Optimum = 30-40 ppm - Low/Deficient = ≤ 10 ppm	- Whole plant is pale-green to yellow - Yellowing of younger leaves first - Thin, erect stems or tillers	 Source: PennState  Source: PennState  Source: Daniel Kaiter
Calcium (Ca)	Key component of cell walls that prevents disease entry, formation and creation of cell nucleus.	- Optimum = 600-1000 ppm - Low/Deficient = ≤ 300 ppm Note: Ca deficiency is uncommon in Ontario soils	- Misshapen leaves with yellow or brown spots, browning margins, and/or brown leaf veins - Poor root growth - Burnt growing point	 Source: K. Olson-Rutz  Source: PennState

*Critical Limit: the level below which crop growth is likely to be impacted.

Note: Optimum soil nutrient levels may vary between soil and crop types. The above levels should be used as a guideline.

Other News

YEAR-ROUND STRAWBERRY PRODUCTION

source: <https://www.thepacker.com/markets/fruit/greenhouses-increasingly-where-heart-berries> - Tom Burfield

Not too long ago, few would have thought strawberries would hold a prominent spot along with tomatoes, cucumbers and bell pepper in Ontario's flourishing greenhouse industry. Today, though, berries are becoming increasingly commonplace in protected agriculture.



DelFrescoPure in Kingsville, Ontario, started growing greenhouse strawberries in 2016, said CEO Jaime D'Alimonte. The company spent two years doing research on a quarter-acre site and installed high-pressure sodium lighting to allow year-round production. Today, the company has 15 acres of conventional greenhouse-grown strawberries and plans to have 25 acres of

conventional strawberries by December. By October 2023, the company hopes to have organic strawberry acreage in the U.S. and eventually add raspberries, blackberries and blueberries.

Kingsville-based Mastronardi Produce Ltd. is pretty much a veteran greenhouse strawberry grower. They started in 2003 and after a seven year learning curve they launched their first premium, greenhouse-grown strawberries commercially in 2010. The company now also grows greenhouse raspberries and blackberries.

Mucci Farms in Kingsville began trialing strawberries in 2014, said Dan Branson, senior director of product and business development.

"After two years of trial and error, we felt like we understood enough about the growing process to build an exclusive strawberry facility, which began as a 36-acre project to be built in three phases over three years," he said.

"In 2021, we built a twin 36-acre facility to bring us to 72-acres, the largest indoor strawberry farm in North America — maybe the world."

Greenhouse growers expect the trend toward berries to gain traction across North America.

Producing strawberries in a greenhouse is more efficient and less labor intensive, D'Alimonte added, and allows for climate control. "This means that you can have delicious strawberries all year long instead of just in the summer time."

The advantages of growing greenhouse strawberries are many, Branson said, including:

- High-tech greenhouses offer the cleanest growing environment
- Greenhouses also eliminate the need for pesticides and sprays
- Less shrink and premium quality as a result of harvest at late stages of ripeness.

- Greenhouses can produce at least seven times more per square meter, and our growing season is 365 days a year with minimal fluctuation in production using 80% less water than traditional field farms."

SCHEDULE VEGETABLE PLANTING FOR CONTINUOUS HARVEST

Adapted from article by Janet Bachman NCAT Agriculture Specialist, ATTRA, www.attra.ncat.org

Market Gardeners try to schedule plantings so they have a continuous supply of produce throughout the growing season. To be successful, a planned approach is best using records from previous seasons and information from seed catalogues and packages. This will help you know:

- Appropriate planting dates
- Number of days to harvest
- Length of harvest from first to last pickings

These factors are affected by several things, particularly weather. Appropriate planting dates are commonly scheduled around the annual frost free date in spring and the first freeze date in the fall. As well, for cool weather crops like peas, or crops that tend to bolt, avoiding mid-summer heat/long days is a factor. A common strategy is for early season plantings and late season plantings.

Weather also has a large influence on timing because of the effect on seedling establishment and crop growth. For example, peas planted two weeks apart in early spring will mature only one week apart, because germination conditions at the time of second planting will likely be much better and the young plants will grow faster, slowly catching up. The same process happens in reverse for fall crops, even a couple of days difference in midsummer planting can lead to a harvest date difference of two or even three weeks.

Two ways to plant for continuous harvest are:

- 1) To plant varieties with a different number of days to harvest at the same time
- 2) To plant the same variety multiple times in succession

Sweet corn is often grown in successive plantings to provide continuous harvest. A good way is to wait until one planting is 1-2 inches tall before planting the next. Another is to use accumulated corn heat units (CHU) or growing degree days (GGD). While it may sound a bit complicated, growers monitor spring growing conditions, maximum and minimum daily temperature to calculate when successive plantings should be done. This practice is commonly used by many sweet corn growers to ensure a constant supply of fresh corn throughout the season.

When scheduling planting also consider how long each vegetable produces. Some crops like bunching onions, radishes, lettuce, broccoli, bush beans, and corn at maturity have a harvest period of just a week or less. Others including tomatoes, summer squash and peppers are long season crops that generally bear for extended periods.

Having a constant predictable supply of produce is key to keeping customers and ensuring season long sales. Take time to plant taking into account the factors that influence maturity and harvest.

JH