



Greenhouses for Four Seasons

By Lynn Moreau

Whether you are a hobby gardener or whether greenhouse production is your profession, a greenhouse provides an ideal environment for efficient growing of vegetables and flowers. A traditional greenhouse provides a level of protection from harsh weather conditions, while allowing you to extend your growing season. Greenhouses can offer a much warmer and more humid environment than the outdoors.

There are many factors to consider when planning your greenhouse project. When deciding where to position your greenhouse, you need to select a location that gets plenty of sunlight and will not be prone to flooding. It is best to select a flat site with stable soil and that is south or southeast of any existing structures, and away from any large trees that could block out some of the sunlight. If you want to grow in the winter months, orient your greenhouse from east to west to maximize sunlight exposure. You also need to consider your proximity to power and a water source.

If you plan to grow in your

greenhouse during all four seasons, heating is a very important consideration. Heating methods for your greenhouse can include the use of passive solar methods such as a heat absorbing concrete wall or barrels filled with water. Water or a solar wall will absorb the heat in the greenhouse during a hot day acting as a heat sink, and release it slowly to the plants during the night. Other heating options can include electric heaters, propane and/or natural gas heating, heating with wood, heating with compost or animals, geothermal heating, or gas/diesel heaters. Biomass heating is another option that can be used. The biomass fuel can be wood, dried plant materials, corn stocks, or various other discarded biological material. This material can be burned in a furnace.

A ground to air heat exchanger, also known as a climate battery, uses fans to pump air through a network of pipes underneath the greenhouse, causing heat to be stored in the soil. This heat is then released at night when the temperature drops.

Greenhouse construction materials

can be variable and can include plastic covering of various thicknesses or polycarbonate material. Having a double layer of plastic and heating between the two layers can be a heat saving solution. Ventilation is equally important to ensure that your plants do not overheat. To accomplish this, various methods can be used. These can include ventilation fans, louvres and window openings, or roll up sides.

To keep growing through the winter, pick the right crops. Cool weather crops that can be grown in a greenhouse at much cooler temperatures include leafy greens such as kale, lettuce, spinach and arugula. To maintain these crops during cooler temperatures, they can be covered with insulating layers of plastic. Snow can also act as an insulator on your greenhouse, so you should not remove snow that settles on a northfacing roof.

There are a myriad of companies that sell greenhouse kits, or you could decide to grow your own. If you would like assistance with planning your greenhouse project, feel free to contact me!



RESOURCES: Agriculture Programs

 <p>IAPO Business, Farm and Agribusiness Financing</p>	<p>THE INDIAN AGRICULTURE PROGRAM OF ONTARIO is launching a series of online workshops on a wide range of agricultural topics such as poultry, gardening, beef production and maple syrup. A Meat Bird Production workshop is planned for January 28th from 7:00 pm to 8:30 pm. To register for this session please email info@indianag.on.ca or call 1-800-363-0369 or visit the website at http://indianag.on.ca.</p>
 <p>2021 ONTARIO Invasive Species Forum March 1-4, 2021</p>	<p>2021 ONTARIO INVASIVE SPECIES FORUM VIRTUAL. The forum is an opportunity for invasive species partners, stakeholders and practitioners across Ontario to come together and share information on the status of invasive species management. We encourage anyone working in invasive species management in Ontario, as well as those interested in the topic, to attend the event. The forum will host discussions about best practices in invasive species management and strategies to implement going forward. Date: Monday, March 1 – Thursday, March 4, 2021 Note: This is a free platform. We will send instructions on how to login to participants in advance of the forum. Registration deadline: Monday, Feb. 22, 2021 Cost: In consideration of the difficult times and challenges that we have all been facing this year, registration will be offered for this event on a “pay if you can” basis. The cost for those who can and are willing to pay for this event will be \$25 + HST. For a complimentary registration, please use the promo code COMP2021. https://www.invasivespeciescentre.ca/events/ontario-invasive-species-forum/</p>
 <p>EFAO ECOLOGICAL FARMERS ASSOCIATION OF ONTARIO</p>	<p>EFAO - FARM LED RESEARCH FUNDING What are you curious about on your farm? Do you have an idea for a research or breeding trial and need help designing an experiment? EFAO can help you answer your on-farm questions with financial and technical support. Farmer-led research is a flexible and powerful tool that can be integral to improving operations on your farm, including the environmental and economic impacts of your innovations and comparisons. Learn more about the Farmer-Led Research Program here: https://efao.ca/farmer-led-research/ Submit a funding application at http://efao.ca/funding/ Deadline Date: January 31st, 2021.</p>
  <p>ONLINE LEARNING SERIES Purpose & Profit Inspire. Educate. Empower. Weekly Sessions January - February FAIR FINANCE FUND</p>	<p>THE FAIR FINANCE FUND (“Fund”) is a non-profit social finance fund dedicated to providing loans and mentorship services to local food and farm enterprises that value strong local food systems, local economies, and a healthy planet. The Fair Finance Fund offers both the Stepping Stone Loan Program and the Fair Finance Loan. The Stepping Stone Loan is between 5 and 10K and the Fair Finance Loan is between 20K to 200K. Contact: 1-647-812-1255, Email: info@fairfinancefund.org</p>

Keeping Backyard Chickens for Eggs

By Lynn Moreau

This morning my old chicken died. It was a combination of old age and cold weather. Although I've been keeping chickens for years, the death of a chicken in my flock always tugs at my heart strings. Chickens give so much and take so little. They are the easiest type of livestock to raise on a small farm and can significantly enhance local food security.

One hen will typically lay an egg a day and older birds may lay an egg every other day. The most popular laying breeds that I would recommend for a beginner include Isa Reds (also known as red sex links), Plymouth (or Barred) Rocks, or White Leghorns. When starting out to raise chickens for the first time, the main considerations include why you are keeping the birds. Do you plan to raise them for eggs or meat?

Egg layers are the easiest type of bird to start out with and can be purchased either as chicks, pullets or adults. Chicks are typically purchased at one day old and require specialized equipment including a heat lamp and

brooding box to raise successfully to avoid mortalities. They are the least expensive option, but you must consider the additional costs of feeding and caring for the birds until they reach egg laying age.

Pullets are young laying hens of between four and six months of age. They are usually sold at the age of lay so can be expected to start laying soon after you purchase them. Based on my experience I suggest these are the best option for those just starting out. Even though they are more expensive, you don't need to have any specialized equipment and the birds come ready to lay. Another option is to purchase older layers. This option may also be fine for those just starting out, but keep in mind that older birds may not be as productive and may require replacement after a couple of years.

When keeping chickens, you have to consider shelter, water, proximity to a water source and predators. There are several different methods of keeping predators at bay. These include construction of a suitable coop and ranging area, utilizing electric

fencing, or purchasing a guard dog. Your chickens will require access to clean fresh water at all times. In winter consider wiring your coop to allow for the plug in of an electrically heated dog bowl to keep your water from freezing. Chickens also require bedding in the form of straw or wood shavings to keep them insulated and warm in winter. The bedding will need to be cleaned out and replaced occasionally and is a great addition to the garden.

Coops should be constructed to include nesting and perching areas. A wide variety of plans are available online. Ensure that the setup of your coop allows for easy cleaning.

Chickens are amusing and entertaining creatures and provide the added bonus of garbage disposal for all your kitchen scraps. They are a great creature to provide entertainment during the pandemic. I highly recommend you invest in keeping chickens. If you would like to get started with keeping chickens and require any assistance or words of advice, please feel free to contact me.



EVENTS

CONSERVATION THROUGH RECONCILIATION PARTNERSHIP 2021 VIRTUAL CAMPFIRE SERIES – 3 part Webinar series

Webinar #1: Indigenous Led Natural Climate Solutions Nature and Carbon: Opportunities and Challenges for Indigenous Leadership

January 29, 2021 at 1-3 pm. EDT

Registration: <https://conservation-reconciliation.ca/upcoming-webinars/nature-and-carbon-opportunities-and-challenges-for-indigenous-leadership>

ANISHINABEK NATION LANDS, RESOURCES AND ECONOMIC FORUM

Save the Date: February 16-17, 2021

NORTHERN ONTARIO WOMEN

Funding for a Limited Time! A total of \$2,000 dollars of funding is available to Northern Ontario women



LYNN MOREAU is a Lands and Resources Program Coordinator with the Anishinabek Nation where she is responsible for the Agriculture Portfolio.

Originally from Callander, Ontario, Lynn now lives in Bonfield where she is co-owner of Green Legacy Farm

with her husband Dean. Lynn holds an Environmental Science degree from Trent University and a Fish and Wildlife Technician Diploma from Sault College. Lynn can assist with funding application processes and has agricultural experience in vegetable and perennial growing, chicken farming, maple syrup production and aquaculture.

Minadoo Giizis (January - Spirit Moon)

The first moon of Creation is Spirit Moon, and is manifested through the Northern Lights. It is a time to honour the silence and realize our place within all of Great Mystery's creatures.

Thirteen Grandmother Moon Teachings by Arlene Barry, from her series of compiled teachings "Kinoomaadewinan Anishinaabe Bimaadinzinwin", Book Two.

business owners to take a course pertaining to their area of business. The deadline is March 31st. The NOW program will be launching a Digital Help Desk which will assist women-owned and women-led businesses in Northern Ontario in the areas of Digital Marketing, eCommerce, Website Management & SEO. For more information please contact Northern Ontario Women <https://www.lambac.org/now/>

JOB OPPORTUNITIES

Title: Program Director, Energy

Organization: Green Communities Canada

Salary Range: \$70,000-75,000 (pro-rated 3 days/week until further funding; flexible work hours)

Location: Remote, home office

Timeframe: as soon as possible

Please send a cover letter and your CV to Mary Anna Zakula: mazakula@greencommunitiescanada.org by January 22nd, 2021.



KIIN MIINWAA ENDADIZIWINAN
LANDS AND RESOURCES

OVERVIEW

The Lands and Resources Department was established within the Anishinabek Nation in the spring of 2007. Currently, there are four program areas with staffing capabilities. These include: Water Resources, Minerals and Mining, Trapping, and Canada Ontario Resource Development Agreement.

MISSION

The Lands and Resources mission is to foster a better quality of life by ensuring access to natural resources by supporting the goals, values and aspirations of the Anishinabek Nation.

GUIDING PRINCIPLES/CAPACITY BUILDING

By creating opportunities our communities are empowered to increase the natural, technical and financial capacity derived and generated from our lands and natural resources."

Jurisdiction and Treaty Rights - "by building and preserving Anishinabek laws within our territories, communities can continue to assert and exercise jurisdiction, implementing ownership of lands, water and resources."

Access to Lands and Resources - "our communities are strengthened by continuous advocacy efforts to increase access to lands and resources."



Lynn Moreau
Program Coordinator,
Agriculture and Food
Lands and Resources Department

Anishinabek Nation
1 Migizii Miikan
Nipissing First Nation
P.O. Box 711, 1 Migizii Miikan

North Bay, Ontario PIB 8J8
Tel: (705) 497-9127 ext. 2334
Toll Free: 1-877-702-5200
Website: www.anishinabek.ca