Master Gardeners of Ontario

What's growing on?

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Fall, 2009 **www.mgoi.ca**

Germination Strategies for Native Plants

Judy Brisson, Guelph and Wellington County

White Pine Seedlings

Unlike garden perennials, tropical garden annuals or vegetables, most Ontario native plant seeds require special treatment before germination. Temperate zone native plant seedlings need several months of growth to be strong enough to survive winter so plants with late ripening seed must inhibit germination through a variety of strategies. Chemicals found in fruit flesh inhibit germination until the flesh has decomposed. Seeds contain chemical inhibitors that break down only after months of cold, moist storage or alternating periods of cold and moist storage or only on exposure to light. Hard seed coats are broken by passage through an animal gut or by underground storage.

To successfully grow native plants from seed, the native plant gardener must mimic nature to break down germination inhibition through a process called stratification. Stratification means moist storage, either cold (just above freezing) or warm (room temperature). Some seeds also need breaking of the seed coat (scarifying) either by nicking or by gentle rubbing with sand paper. Some seeds will respond to being covered with near boiling water, allowed to cool then soaked overnight. Those that need light to germinate should be sown on top of potting mix, gently pressed in and left uncovered or covered with very fine sand.

Native plant references will include stratification protocols for each species or use the natural history of the plant as a guide. Seeds that ripen in late spring or summer naturally experience a warm period, followed by a cold period and will need both warm and cold stratification. Seeds enclosed in tasty fruits will need flesh removal and scarifying to simulate travel through a digestive system. Heavy seeds that fall immediately upon moist soil may not tolerate dry storage, smaller wind distributed seed may need to be dried.

The majority of Ontario native plants need cold, moist stratification for 60 to 120 days. Sowing freshly collected seed outdoors in a seed bed allows Mother Nature to do the stratification but loss of seeds to rodents is a risk. I stratify indoors by placing the seeds of each species in moist vermiculite in individual labeled ziplock bags stored in the refrigerator. For species requiring alternating periods of warm/cold, I mark my calendar for the switch dates and keep a close eye on the seeds when in the warm, as they may start to germinate during storage. If that happens, they must be sown immediately. After stratification, the seeds can be sown in trays and treated as one would treat other seeds – pricking out to plug trays, transplanting to pots, fertilizing lightly and hardening off.

see the MGOI website for more detail

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Carol Dunk Retires from the Board

Edythe Falconer, Ottawa Carleton

Carol Dunk has been one of the most active and productive members of the MGOI Board throughout her five year term. At the same time she has been equally active in the work of OHA and with her home Master Gardener group.

Some of the activities she has been involved in include acting as liaison with Niagara School of Horticulture toward forming an educational partnership with MGOI; writing the first and assisting with writing the second Trillium application; acting as treasurer re operational budget and management of Trillium grant funds and evaluating and developing alternative educational programs including the development of Exemption and Certification examinations

Most recently she has been an active member of the executive including serving as Vice-President. Carol has actively been involved in the exploration and development of the concept of life-long education through Technical Updates, Summer Schools and Continuing Education Units.

Carol is still a dedicated Master Gardener but is now focusing her considerable energy and intelligence on her work with OHA. Carol is an amazing person and no one on the Board, past or present would have wanted to miss working with her in the years that she served MGOI.

Benefits of Native Plants

Patty King, Halton Region Master Gardeners

There has been an increased interest in the past few years on using native plants. Canada has an abundance of wonderful natives that suit any garden. Many books and magazines break them down into groups such as woodland, prairie or meadow and wetland plants. While we, as Master Gardeners, need to be familiar with the natives available, it is equally important to understand what benefits are provided to our gardens and other natural environments when we choose natives over exotics.

Simply because of the passing of time, flora and fauna have evolved together and depend on one another for survival. Plants provide food and shelter and in return insects pollinate them and keep down pest populations, while animals control plant size by browsing. When we choose to plant natives we encourage and maintain this natural cycle of life. When we use primarily exotics in our gardens and parklands we risk losing many of our bird, animal and insect populations. Consider the fact that birds lay fewer eggs when their habitat has less to offer in terms of food and shelter. Insects are the primary herbivores in our ecosystem. Many of them rely on one or two food sources for survival, e.g. the monarch butterfly. Natives feed 29 times more types of caterpillars than non-native plants. Flowering Dogwood feeds 118 types of caterpillars whereas the Oriental Dogwood feeds one. A native oak tree feeds as many as 534 species of caterpillars, not to mention all the other creatures it supports.

Natives improve biodiversity. Without a variety of

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plant life ecosystems become less stable. This variety is essential to the health of the planet. When a gap appears it opens up the opportunity for exotics to take over, many times to the detriment to our forests and wetlands. Consider the effects of purple loosestrife, Japanese knotweed and oriental bittersweet.

By choosing natives for your area you invite plants already accustomed to the soil and climate. Because natives are acclimatized to the conditions, they require less maintenance as they have fewer pests and diseases. In addition they require less physical intervention on our part and need less water, pesticides and little to no fertilizer.

Probably best of all is their beauty. There is something for everyone. If you prefer low profile charmers look no further than the woodland plants such as *Actaea, Sanguinaria* or *Anemonella* spp. If you like big bold colourful plants we have those too. Consider *Phlox, Monarda* and *Aster* spp.

My hope is this interest in native plants is not a passing trend but a return to our roots.

Suggested reading:

100 Easy to grow Native Plants by Lorraine Johnson

Native Plants of the Northeast, a guide for gardening and conservation by Donald J. Leopold

Web sites:

North America Native Plant Society
http://www.nanps.org/index.aspx
Ontario Wildflowers
http://ontariowildflowers.com/index.php

Mystery Plant

Do you know this plant? The answer will be revealed next issue.

As far as we can tell no one named the Mystery Plant last issue. It was Dog Strangling Vine. Watch out for this nasty plant in your garden.

MGs in Action

On Saturday, September 19, 2009 the Zone 4 Technical Update "Gardening for Life" was hosted by the **Guelph and Wellington County Master Gardeners**. Almost 100 people attended this busy day, comprised of three morning speakers on: Organics, Pollinators and Native Trees and Shrubs. In the afternoon participants were able to choose a follow-up tour of Ignatius Organic Farm; Pollinator Park, The Guelph Arboretum or the Guelph Centre for Urban Organic Farming.

Project Orange Thumb ribbon cutting.

Two **Lake Simcoe South MGs** have been awarded a $2300 grant through Fiskars Project Orange Thumb. Elizabeth Brimm and Janet Tresize applied for the grant in order to expand the community gardens started by our facilities host, the Newmarket Church of Christ. The award included new Fiskar's tools valued at $5000 retail, and materials to build additional raised beds for the growing gardens. A ribbon cutting ceremony was held May 30th.

Janet Ballantyne and the **Toronto MGs** have created a layman's document for the Ontario pesticide ban. This summary highlights the active pesticide product, what it is used for and the names of available products at retail.

Mary Ann Van Berlo, **Ottawa-Carleton MG** and Assistant Director of the OHA District 2 organized a Horticulture Society Fun Day at the Rideau Woodland Ramble, a nursery with lovely display gardens near Ottawa. Using the Master Gardener – OHA partnership, she arranged for several volunteers some of whom were MGs to give garden talks ranging from Water-wise Gardening to Gardening with Plants with Variegated Foliage. About 65 visitors from several Hort Societies attended the talks and enjoyed lunch together.

Garden Worthy Native Perennials

Robert Pavlis, Guelph and Wellington County

'Garden Worthy' is in the eye of the beholder, but I think you will agree that the following deserve a place in your garden.

Hepatica

This is one of my favourites. Hepaticas bloom very early in the season and can be found in deciduous forests that stay on the wet side. Flowers come in white, pink and blue and are normally in bloom before the plant develops leaves. Ontario has two species and both are fairly common. *Hepatica acutiloba* has leaves that are pointed and *H. americana* has rounded leaves. Some authorities believe that these are the same species. Grow the plant in part shade with reasonable moisture and the leaves will stay green all summer. In drier conditions the plant will go underground by midsummer. For those who love Hepatica, there are an unbelievable array of new hybrids.

http://www.srgc.org.uk/smf/index.php?board=26.0

Thalictrum

The Tall Meadow Rue (*Thalictrum polygamum* or *T. pubescens*) grows in ditches and bogs that get lots of sun. It has fluffy white flower heads, grows from 1 to 2 metres tall. The white 'starburst' flowers are made up of long stamens, not petals. The overall effect is quite unusual, and the leaves have that nice airy columbine look.

http://www.ct-botanical-society.org/galleries/thalictrumpube.html

New Honourary Master Gardener, Cathy Dueck

Cathy Dueck

The title of Honourary Master Gardener was conferred on Cathy Dueck of Peterborough Green-Up at a Zone 9 get together on September 26. The event was a celebration of Peterborough and Area MGs 20th anniversary. Cathy manages the Ecology Park and has been a tireless advocate of green activities in Peterborough for the last twenty years. She has assisted in our training for identification and care of trees. Cathy joins a small number of people who have received this honour. For a more complete description of Cathy`s accomplishments, see the MGOI website.

Milestones

New MGiTs

Guelph and Wellington County – Inger Knudsen, Diane Marchese, Robert Pavlis, Pam Sheldon

Haliburton County – Heather Chambers, Janice Hardy, Anna Schuster, Gwen Turner

London Middlesex - Rhonda Persichilli

Completed Education Requirements

Lake Simcoe South Master Gardeners –Terri Briggs, Lynne Marie Sullivan – Nova Scotia

Lanark – Paul Pietsch – Certification Exam

New MG's

Peterborough – Judy Bernard, Anne Milne

5 Years

Guelph and Wellington County – Brenda Atkin, Judy Brisson, Karen Ince, Denise Jupp, Susan Mason

Lanark – Kathleen Lang

10 Years

Guelph and Wellington County – Frances Schwenger

15 Years

Guelph and Wellington County – Mary Beverley-Burton

20 Years

Oakville Master Gardeners. Roseanne Nelson (actually 21)

Emerita/Emeritus

Guelph and Wellington County - Vicki Beard, Mary Beverley-Burton

In Memoriam

Ottawa-Carleton – Doug McNab, spouse and best friend to Joan McNab, Master Gardener since 1986

Beyond the Call

Edythe Falconer of the Ottawa-Carleton group spent much of her summer with her committee organizing the August plant sale. In addition she has been busy coordinating September's Technical Update at Algonquin College and helping to organize the MGOI Coordinators' Conference to be held in Milton.

Nova Scotia Summer School

Kevin Long, Lanark Master Gardeners

"This is the first time I've used a Dutch hoe – I want to get one!" "According to the testing kit's colour chart, the pH of this soil sample is somewhere around 5." "These needles are four-sided – look in the key to see if they are from a spruce." "Whoops – I think I pruned too much off of this shrub." "Where is the tulip tree?"

The above are just a few of the excited comments heard from students at this year's Master Gardener (MG) Level 1 Summer School at the Nova Scotia Agricultural College (NSAC) in Truro. I was privileged to be one of this year's eight students, and found it a great experience which I would highly recommend. The one-week summer school is a requirement for Atlantic MG students, but is optional for those of us in Ontario. A first this year was the participation of three Ontario MG students—myself, Irene Granger of Espanola, and Anna Sipos of Ottawa—and we all left raving about our time together.

The summer school closely reflects the four online MG courses offered by NSAC. For me, its attraction was the opportunity for hands-on experience. I have been doing fine with the online learning, but I realized I was lacking on the practical side, and the week in Truro helped to fill that void. Some of the time was spent at classroom desks, while much of it occurred with our hands in soil or doing a variety of activities outside on the beautiful college grounds.

The week was full and extremely well planned and prepared. Various instructors at the college taught us, and we benefitted from their vast expertise presented in a relaxed and comfortable manner. Our two main instructors were Professor Carol Goodwin and Sherry Chaisson, whom we had met earlier online through our courses. It was a real treat to experience in person the infectious enthusiasm of these two women, who were so eager to share with us their amazing knowledge and love of horticulture.

We learned soil sampling techniques, and expanded our knowledge of plant identification and of composting. We were instructed in how to use and maintain garden tools, and then used these to edge a garden and to prune trees and shrubs. Time was spent propagating and transplanting plants, and after being shown how to design a container, we prepared a hanging basket to bring home. We learned about fertilizer calculations, weeds, and pest and disease scouting. One day we boarded the college bus for a field trip to a home garden and a nursery. The finale of our week was planting an actual garden bed at the college.

The summer school, usually held during the first full week of July, is open to anyone with an interest in gardening, but there is a special tuition rate for MG students doing their studies through NSAC. Go to the NSAC website for more information. Accommodation is available on campus, and the VIA Rail station is within walking distance. Why not combine summer school with a sightseeing trip to enjoy Maritime hospitality?

Events

October 17 - Coordinators' Conference, Landscape Ontario, Milton

October 20 and 21st. - Landscape Garden and Florist Expo 2009, Toronto Congress Centre. For the first time Master Gardeners of Ontario will have a presence at this show. Four Master Gardeners will make presentation on the Garden and Floral Stage on Tuesday October 20. There will be an "Ask the Expert" booth manned by Master Gardeners throughout the show. See the MGOI website for further details.

November 14th – Technical Update hosted by Norfolk County Master Gardeners at the OMAFRA Office, 1283 Blue Line Road, Simcoe. The topic for the day is "In the Carolinian Zone" The cost is $35, and includes lunch, breaks and door prizes. For registration information, please contact Debra Featherstone at deb@featherstonetravel.com.

January 9th, 2010 - The Toronto Master Gardeners Technical Update at the Toronto Botanical Gardens. Our focus this year is EVERYTHING TREES. For $35, Master Gardeners will be offered a variety of speakers, lunch, and all the usual goodies. For more information, please contact Tena at casey.vanandel@sympatico.ca .

January to April at Lee Valley in London 10 presentations by Ron Rossini and Jennifer Grant London Middlesex – Check at the store for details.

February 28, 2010 – Guelph and Wellington County Master Gardeners – "Day in the Garden" at Guelph Turfgrass Institute.