

# The Garden Master News



### Newsletter of the Atlantic Master Gardeners Association

ISSUE #13

**VOLUME #1** 

SPRING 2021



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- 1) Inspect hardscaping, (raised beds, fences, trellis, etc.) Repair damage, build new structures.
- 2) Prune dormant trees or shrubs on days with temps above freezing. Prune early bloomers after blooms are completed.
- 3) Turn compost and determine if any is ready to use.
- 4) Start seeds indoors for transplant when soil warms. Presoak large seeds, or those with thick coats, overnight.
- 5) Test garden soil, amend as recommended. Work compost into top 1" of soil.
- 6) Check tools for rust/wear. Clean with 50% water/50% vinegar and brush with steel wool.
- 7) Plant summer bulbs (Dahlia, Lilies)
- 8) Divide Perennials and transplant shrubs.

- 9) Clean up debris in gardens
- 10) Weed & mulch. This helps to keep on top of the weeds.
- 11) Prepare gardens for planting.
- 12) Edge beds to clarify lawn/garden.
- 13) Check for garden pests. Don't use chemicals that will harm pollinators or other beneficial insects.
- 14) If you planted cover crops in the fall, work them into the soil.
- 15) Direct sow cool season veg seeds In garden.
- 16) Prepare containers for plants that will grow in containers.
- 17) Check Frost dates and be prepared to cover plants.
- 18) Ensure watering to establish new plants.

Enjoy the Spring Blooms!





# President's Message Spring Greetings from Jim Sharpe



With the lockdowns and restrictions from the COVID-19 epidemic, there is more interest in gardening than ever. Seed companies are reporting a huge increase in demand and nurseries are gearing up for another record breaking season. Our Atlantic Master Gardeners Association has more members and activities than ever, with monthly Zoom discussions on seasonal gardening practices on the first Monday evening of each month. Although the travel restrictions have forced us to cancel our annual July conference, with the use of Zoom, our website and our webinars are spreading the word on gardening in Atlantic Canada.

Instead of our July conference, our conference committee, co-chaired by Sandra Matchett and Gigi Pelletier, has organized three webinars, one each second month over the gardening season. On Sunday, May 2<sup>nd</sup> at 2:00 pm, Jenni Blackmore, author of "Permaculture for the Rest of Us," will show us how to use permaculture in our gardens.

This summer, on Sunday, July 7<sup>th</sup> at 2:00 pm, Julie Moir Messervy of JMMD Landscape Architects, will present on "Seven Spatial Archetypes of Landscape Design." Then in the fall, on Wednesday, Sept 22<sup>nd</sup> at 7:00 pm, Niki Jabbour, Nova Scotia's award winning author of gardening books, will present on "Growing Under Cover," her latest publication. Each session is only \$10 for AMGA members or \$20 for others. To sign up please use the AMGA website:

#### https://www.atlanticmastergardeners.ca.

Thanks so much to Gigi and Sandra for their work organizing these innovative webinars .

On our website there are links to two other important events. From June 3-6, 2021 the American Rhododendron Society is holding its annual convention

at the Old Orchard Inn in Wolfville, NS. With the travel restrictions most will attend the convention virtually but there are a limited number of spaces for local participants who can attend in person. The Convention includes speakers, garden tours and workshops on rhododendrons and companion plants.

Every second year the International Master Gardeners hold a large conference. This year, from September 12-17, the Virginia Master Gardeners will convene a virtual conference. As I attended the conference in 2019, I highly recommend this opportunity, especially as you can attend on-line with no need to travel to Norfolk Virginia. The weblinks for both of these events are featured on our website.

In the last two weeks, I was able to participate in two interesting webinars, one from Garden Design magazine and the second from a Scottish environmental organization, Sustainable Kirriemuir. David Culp from Brandywine Cottage, Pennsylvania, is presenting on "A Journey through Your Garden" each month. The February presentation had wonderful hellebores. The next presentation, on his April Garden, is scheduled for Thursday, March 25. You can register at <a href="https://www.gardendesign.com/classes/">https://www.gardendesign.com/classes/</a>. I'm not sure how I received the notice from Scotland, but I was very pleased to hear a wonderful presentation on "Growing Natural Meadows" by Fiona Guest from Scotia Seed on Zoom on Feb 26. Check out their Facebook site for future events.:

https://www.facebook.com/sustainablekirriemuir.

Happy Spring Gardening!

Jim



### SPRING GARDENING EVENTS



#### March, 2021

March 24, 5-6:30pm-"Magnificent Milkweed"
 Free Webinar on relationship between milk weed and monarch Butterflies by MTRI (MonarchTeacher Network of Canada).

 Registration and Info:

https:/www.eventbrite.ca/e/magnificentmilkweed-tickets-145167013445

- March 27-28,9am-1pm (PST)-"Spring Back 2021"
   Webinar (\$50) via Zoom by Vancouver Master Gardeners. Register at: https://www.karelo.com/register.php
- March 29, 7:00pm-AMGA Executive Meeting via Zoom. To add Agenda item contact Executive at: atlanticmastergardeners3@gmail.com

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#### April,2021

April 5, 2021, 7:00pm, AMGA Gardening Session
 Show & Tell -Your Favourite Plant
 <a href="https://us02web.zoom.us/j/86778646477">https://us02web.zoom.us/j/86778646477</a>

April 5,2021—Registration opens for:
International Master Gardener Virtual
Conference: September 12-17, 2021,
Norfolk, Virginia, USA

https://www.internationalmastergardener.com

• April 17,2021, 8:00-1:00pm, Seedy Saturday
Halifax Brewery Market, Halifax, NS

Contact: Rachael: <a href="mailto:hello@halifaxbrewerymarket.com">hello@halifaxbrewerymarket.com</a>

#### 

May, 2021

May 2, 2:00pm -2021 AMGA Spring Webinar
 Jenni Blackmore on "Permaculture" for the rest
 of us. To register: <a href="https://www.Atlantic-mastergardeners.ca/springwebinar">https://www.Atlantic-mastergardeners.ca/springwebinar</a>

AMGA Spring Webinar Registration Form Sunday, 2 May 2021 at 2pm AST. Jenni Blackmore		
First Name	Last Name	
Email		
AMGA Member ? *  Yes (\$10)  No (\$20)	New to Zoom  Yes No	
Complete payment via E-transfer to atlanticmastergardeners3@gmail.com		
E-Transfer Password (if used)		
s	ubmit	

May 31,2021,7:00pm-AMGA Executive Meeting
via Zoom. To add Agenda item contact Executive
at: <u>atlanticmastergardeners3@gmail.com</u>



June, 2021

 June 2-6, 2021, American Rhododendron Society Convention: Rhodos Down East Old Orchard Inn, Annapolis Valley <a href="https://ars2021.org">https://ars2021.org</a>

# Neem

### A more environmentally responsible pesticide

by Dawne Jeffreys,
 Ontario Master Gardener

This article is intended to provide answers about what neem is, when and where to use it (or not), how to use it, and why you cannot use it in Canada.

#### A little history about neem trees

A neem tree (*Azadirachta indica*) is a fast-growing large evergreen tree, generally 15-20m tall, occasionally growing to 35-40m. It is a tree that does very well in sandy soil and is drought resistant, yet it will shed its leaves in severe drought

conditions. Vast quantities have been planted to stop the growth of deserts, reclaim degraded land, increase soil fertility, and for firewood. Although the focus here is on neem from an ornamental garden perspective, it is interesting to know that neem trees have been used and are still used for traditional medicinal purposes. In Tanzania and other Indian Ocean states, it is known as 'the tree that cures forty diseases".

Native range: India, Pakistan, Malaysia, Sri Lanka, Thailand, and South-East Asia, although this has not been confirmed.

Naturalized distribution: Neem trees have been exported to many different countries worldwide

(Australia, Asia, Central/ South America, Africa, Puerto Rico, the Caribbean).

Invasive potential: Neem trees have shown to be invasive. It can (and will) invade grasslands, shrubby areas, riverbanks



Although it is planted for many reasons, excellent management strategies are necessary to mitigate its invasive potential

#### About Neem as a pesticide

For centuries in India, the leaves, twigs, and juice have been used to keep away insects. Neem is a biodegradable, broad spectrum non-toxic systemic



pesticide. It is yellow to brown in colour and has an aroma akin to garlic or sulphur. Extracts from the leaves and seeds (which resemble an olive-type drupe) are processed into a variety of formulations

(granules, cakes, dust, wettable powders or emulsifiable concentrates).

Neem is rapidly broken down by microbes and light in most soil and water environments.

The United States National Pesticide Information Centre has a General Fact Sheet which details the chemical breakdown. Neem is sensitive to high temperatures and should be kept out of the light. Unmixed, the concentrate will remain effective for up to 2 years if stored properly, with little to no loss of potency. To date, neem is effective on 200+ insects and is known to limit the spread of fungi. Remember, it is always a good idea to test a small patch of your plant first.

#### How it works

Insects will ingest what has been absorbed and circulated throughout the plant tissue. The most active component in neem is Azadirachtin, which acts as both an antifeedant and a growth regulator. These properties cause insects to reduce or cease

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# **Neem**, A more environmentally responsible pesticide

(Continued from Page 4)

or cease feeding, prevent metamorphosis (and therefore the laying of eggs), and reduces/interrupts mating. It can take 2 or 3 weeks to fully affect the metamorphosis of insects and prevent the next generation.

#### **Multiple Formulations**

Neem can be used as a foliar spray, soil drench, and as granules. There is also an injectable product called TreeAzin that I will address within the "Using Neem in Canada" section.

Foliar sprays are handy, easy to use and the most common choice for home gardeners. They come in a ready-to-use spray, or a concentrate liquid that is mixed with water and then sprayed. Once on plants neem will remain effective for 2-3 weeks.

A soil drench allows neem to be absorbed by the roots and transported throughout the entire plant. This protects plants inside and out.

Granules can be sprinkled around the base of a plant and are a by-product from the pressing of the fruit for oil.

#### What to use Neem for

As a responsible gardener, one should first assess if a pesticide is truly required. For example, some beneficial insects (ladybugs) will come and feast on your problematic insects (aphids). Indeed, some may be very unsightly, but it doesn't mean they are a real problem for the plant (sometimes it's just a problem for the gardener!). Give your beneficial insects an opportunity to solve the problem for you, before choosing to spray.

Arthropod infestations: Arthropods (segmented hardshelled insects) are the most common infestations for home gardeners. Neem is highly effective in dealing with aphids, whiteflies, tomato hornworm, lily and Japanese beetles, gypsy moths, locusts, mealybugs, weevils, carrot flies, gall, nematodes, grass grubs etc. Arachnids, insects, millipedes, centipedes, and crustaceans are also part of the arthropods, so neem will affect them also.

Fungal infections: Neem prevents spore production. It does not get rid of what you already have, but it prevents the problem from getting worse. Can be used for both Powdery and Downy Mildew.

#### When it's best to apply

Any application should be done in the early evening, nighttime, or early morning. These are times when bees are less active in the garden, so there is much less risk to their health. When neem is applied during the heat and sun of the day, it has the potential to burn the foliage, another good reason to apply late in the day. Neem should not be used on any plants stressed from drought, over watering or transplanting.

#### How to apply

Foliage should be completely coated, but not saturated. If using a concentrate, make sure you carefully follow ALL directions on the label.

#### What if you get Neem on beneficial insects?

Neem is a proven toxin to a Queen bee's reproductive abilities and their larvae when brought back to the hive. It is also toxic to hoverfly larvae. If you spray beneficial insects, it is likely they will die. Remember that it is a systemic pesticide, and it will harm the good as well as the bad, so it needs to be used judiciously.

#### If you get it on your skin

Irritation to the skin ranges from not at all to very irritating, depending on the person. It can be washed off.

### **Neem**, A more environmentally responsible pesticide

(Continued from Page 4)

#### Using neem in Canada



The sole Neem product legally available for use in Canada at this point is TreeAzin (PCP #30559). This product is injected into the base of trees and MUST be applied by a licensed professional. It was developed in conjunction with BioForest and the Canadian Forest Service (CFS). Health Canada's Pest Management Regulatory Agency (PMRA) has registered it for insects that eat tree tissue. Some of the insects it is used against include: Emerald Ash Borer, Gypsy Moth, Tent Caterpillars, Spruce Budworm, Jack Pine Budworm, Arborvitae Leafminers, Sawflies (including Birch Leafminer and Introduced Pine Sawfly), European Elm Scale, and Red Elm Bark Weevil. Ontario's Ministry of Environment, Conservation and Parks (MOECP) scheduled TreeAzin as a Class C Pesticide. Research trials are underway to see if there are other pests it would be effective against.

#### The legality of using neem in Canada

It has not been registered in Canada as a pesticide. In 2012 a ban was placed on the import and export of neem and its related products. The mix of active ingredients is one of the reasons it is so difficult to get approval for use in Canada. There are many

things that can affect the test samples (what country the tree is grown in, how it is shipped, etc.).

To date in testing, the standard of potency and the level of efficacy has not been consistent. Canada requires all components of a fertilizer or insecticide to be screened, which is a lengthy and expensive process. Even though neem has shown indications that it is safe when used properly, there have been few tests and studies to prove it is non-toxic to mammals (humans and dogs etc.), so the possibility of any future issues has not been fully explored. The Pest Management Regulatory Agency (PMRA) of Health Canada is responsible for the regulation of pesticides in Canada. The PMRA website can be viewed at:

http://www.pmra-arla.gc.ca/english/index-e.html. In the United States, neem has been approved only for ornamental garden use.

Neem has the potential to be an alternative option to currently available synthetic pesticides. However, Canada is just not at that point yet. For now, it is illegal for home gardeners in Canada to purchase neem to use as a pesticide in their gardens. Hopefully in the future better biodegradable and environmentally responsible options will be developed, making synthetic pesticides a thing of the past. Perhaps neem will become one of them.

(Continued on Page 7—References)

## **Neem**, A more environmentally responsible pesticide

(Continued from Page 6)

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#### https://www.google.com/search?

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q=neem+tree+fruit&tbm=isch&ved=2ahUKEwio3L
GRwOfuAhXbLs0KHYJWAfQQ2 CegQIA
BAA&oq=neem+tree+fruit&gs\_lcp=CgNpbWcQ
AzICCAAyAggAMgIIADICCAAyAggAMgIIADIG
CAAQCB\_AeMgQIABAYMgQIABAYMgQIA
BAYOgQIABBDUM6mEljjrxJgn7QSaABwAHgAgA
GaAYgBxASSAQM0LjKYA
QCgAQGqAQtnd3Mtd2I6LWltZ8ABAQ&sclient=img&ei=zBsoYKjGG9vdtAaCrYWgDw&bih=770
&biw=1600#imgrc
=Umnp5I3CGz\_8cM

#### https://www.google.com/search?

q=treeAzin&tbm=isch&ved=2ahUKEwj4guKhwef uAhVJB50JHU9WDIwQ2- cCegQIA BAA&oq=treeAzin&gs lcp=CgNpbWcQAzICCAAy BAGAEBgyBAGAEBgyBAGAEBgy BA gAEBg6BAgjECc6 BggAEAgQH joHCCMQ6gIQJzoECAAQQzoHCAAQsQMQQzoG CAAQChAYUO3zEFjNshFgmrwRaAhwAHgCgAHH AYgBzaSAQQyNy40mAEAoAEBqgELZ3dzLXdpei1 pbWewAQrAAQE&sclient=img&ei=xwoYLiZDsmO9PwPz6yx4Ag&bih=770&biw=160 0#imgrc=\_LmMX7hJQACJrM

# BRAIDING SWEETGRASS:

#### INDIGENOUS WISDOM, SCIENTIFIC KNOWLEDGE AND

# THE TEACHINGS OF PLANTS -BY PROFESSOR ROBIN WALL KIMMERER

A Book review - by Lorraine Glendenning

When I last checked, Robin Wall Kimmerer's *Braiding Sweetgrass,* was #3 on the New York Times nonfiction bestseller list. Originally published in 2013, it re-entered the list in 2020, possibly because of Covid-19 and the increased interest in the natural world happening because of lockdowns.

Braiding Sweetgrass is a collection of essays that weave traditional ecological knowledge with scientific knowledge into a braid, and examine the relationship people have with the living environment. The author's approach is familiar to anyone aware of Two-Eyed Seeing, the concept developed by Mi'kmaq Elders, Drs Albert and Murdena Marshall. Etuaptmumk (Two-Eyed Seeing) refers to learning to see from one eye with the strength of indigenous knowledge and ways of knowing; from the other with the strength of Western knowledge, and then seeing with both eyes together, for the benefit of humans and all our relations, plant and animal.

(SUNY) College of Environmental Science and Forestry. She is also a member of the Potawatomi Nation, Anishinaabe peoples, from the region of the Great Lakes. Her ability to teach - combined with her deep relationship with the land — means that *Braiding Sweetgrass* is an extremely readable entry point to a Two-Eyed Seeing approach to ecology. It is probably no coincidence that the book is a fixture on bestseller lists, as we grapple with ways to think about the twin challenges of ecological and viral calamity.

The book is structured around the various interactions between people and the sweetgrass plant – Planting, Tending, Picking, Braiding and Burning – and each section is itself a braid woven from stories from Wall Kimmerer's life: reflections on her work as a botanist, an educator, a gardener, as well as relevant Indigenous stories and learning. Each section centres on one or more gifts we get from the natural world - wild strawberries, pecans, maple syrup, witch hazel. Kimmerer talks about productive relationships; the Three Sisters (beans, corn, and squash) and Indigenous nutrition, the reciprocity of algae and lichen in times of scarcity, the complementarity of goldenrod and asters when attracting bees.

The result is a thoughtful meditation on how we interact with the world, firstly as children, then, as parents, place-makers, and gardeners, as storytellers, and finally as elders and stewards for the generations to come. A favourite chapter is Kimmerer's battle to restore the pond on her upstate New York rural property. It is at once a beautiful metaphor for her quest to provide a home to her two daughters, a description of her scientific examination of the algae she is battling, and a profound reflection on her multiple roles as a mother, a scientist, a water keeper and a steward of nature.

Braiding Sweetgrass is full of Indigenous and emerging scientific knowledge demonstrating the ways in which trees and plants and animals actively care for their ecosystems. A key message is that the plants and

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#### BRAIDING SWEETGRASS:

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animals in our gardens and our ecosystems are our relations rather than our clients or subjects. It gently moves humans away from the central role we gave ourselves during the Enlightenment, the role that allows us to extract more than our due. At one point, Wall Kimmerer imagines the Swedish botanist Linnaeus and the Anishinaabe First Man Nanabozho walking through the landscape together, heads bent in conversation about the names of things.

Anyone who loves their garden, the birds and animals who visit to help us or themselves, and who visits the woods near their home will feel a deep affinity with this book, and with Kimmerer. It is worth reading for this alone. It is also a useful starting point for anyone interested in the relational thinking underpinning ecological movements.

While you're waiting to read the book, take a listen to the CBC Tapestry interview with Dr. Robin Wall Kimmerer:

https://www.cbc.ca/radio/tapestry/why-is-theworld-so-beautiful-an-indigenous-botanist-on-thespirit-of-life-in-everything-1.5817787



### AMGA Notes

- \* Please note the attached email with this
  Newsletter which contains the Spring Newsletter
  "Digging In" from Horticulture Therapy.
  If you are interested in Horticulture Therapy you will want to check out the Newsletter sent by Pauline
  Kemp!
- The next issue of The Garden Master News should be sent to you by June 21/20. If you would like to contribute an article to the Summer Newsletter, please forward it by June 1/21 to: suestuart@bellaliant.net

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References for Spring "To Dos":

Essential Garden Tasks <a href="https://www.provenwinners.com/learn/early-spring/10-essential-spring-gardening-tasks">https://www.provenwinners.com/learn/early-spring/10-essential-spring-gardening-tasks</a>

10 Spring Gardening Tasks—Stephanie Rose <a href="https://gardentherapy.ca/10-spring-garden-tasks/">https://gardentherapy.ca/10-spring-garden-tasks/</a>

The Incredible Seed Co.: Four Seasons of Seed Starting

https://www.incredibleseeds.ca



# AMGA Executive 2021

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**NOTE:** If you would like to contact a member of the Executive please send your message to the following email address and someone will be in touch with you

atlanticmastergardeners3@gmail.com