



The Garden Master News



Newsletter of the Atlantic Master Gardeners Association

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Wild Strawberries

- by *Robert McDowell*

Strawberries that in gardens grow
 Are plump and juicy fine,
 But sweeter far as wise men know
 Spring from the woodland vine.

No need for bowl or silver spoon,
 Sugar or spice or cream,
 Has the wild berry plucked in June
 Beside the trickling stream.

One such to melt at the tongue's root,
 Confounding taste with scent,
 Beats a full peck of garden fruit:
 Which points my argument.

May sudden justice overtake
 And snap the froward pen,
 That old and palsied poets shake
 Against the minds of men.

Blasphemers trusting to hold caught
 In far-flung webs of ink,
 The utmost ends of human thought
 Till nothing's left to think.

But may the gift of heavenly peace
 And glory for all time
 Keep the boy Tom who tending geese
 First made the nursery rhyme.





PRESIDENT'S MESSAGE FROM THE GARDEN

- by **Jim Sharpe**, AMGA President

What a change in our world in the last three months! In March the COVID-19 epidemic resulted in the cancellation of Dalhousie University summer programs, so on March 22 we had to cancel our 2020 Conference and return the registration funds received. Our keynote speakers, Julie Moir Messervy and Gerald Gloade have agreed to postpone their workshop and talks until 2021 so the "Designing Adaptive Gardens in Atlantic Canada" workshop and conference will be on July 7-8, 2021, assuming travel from US and meetings are allowed by that time.

The AMGA Executive, at our June meeting, set the date of September 16 for our Annual General Meeting, which usually takes place at the July conference. It will be at 7:00 pm by Zoom computer conferencing. Mark the date and time and formal notice and documentation will be sent out to members in early September. With the lockdown we are not collecting membership fees for 2020-21 or volunteer hours for 2019-2020 but do keep track of your volunteer activity as you can submit all your hours for 2019-21 in June 2021.

However the lock down and requirement of social distancing has not stopped our gardens from growing. In fact there is more demand for seeds, plants and gardening advice than ever, as many people turn to gardening as a restorative activity in these troubled times.

Atlantic Master Gardeners has responded by using Zoom computer conferencing technology to offer weekly educational and discussion sessions to our members. Starting the second week of April on Monday evenings we have hosted presentations and

information sharing on the following gardening topics: early bulbs; growing flowers from seed; growing vegetables from seed; pruning; composting and soil enhancements; ornamental grasses and native plants; cover crops and ground covers; and favorite shrubs and propagation from cuttings. We have had a great response from our membership with twelve to fifteen participants in each session.

The experience in using distance meeting technology for educational sessions has allowed our members to continue our outreach with presentations to garden societies and educational sessions through the libraries. There is great interest and need for the advice from Master Gardeners as more turn to gardening to grow their own food and beautify their homes.

With the cold start to the spring, my bedding plants were growing very slowly, but with the recent turn to warmer days and nights they have started their growth spurt. Enclosed are some of my pictures from a presentation on growing transplants from seeds and my favorite shrub, Minas Maid Rhododendron.



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FROM THE GARDEN

(Continued from Page 2)



POLLINATOR GARDEN



- by Sue Stuart



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The travel ban has cancelled many of the events that I had planned on attending this spring, the American Rhododendron Convention in Portland, Oregon in April, the Nova Scotia Association of Garden Clubs Convention and Halifax Garden Festival in June, and of course our AMGA conference in July. With the extra time I've been growing more transplants than ever, so with the travel ban preventing me from planting in my New Brunswick garden,

I have a surplus of plants. If you are interested in any transplants send me a message at sharpe@ns.sympatico.ca and I will send you my current list of inventory. A donation to AMGA is all that is asked for the plants.

- Jim

The HRM corner of Brenda Dr and Simé Ct. in Kingswood Subdivision is "abuzz" with transformation!

For about 25 years, this 1/4 acre of city land has been a nondescript "green" area kept mowed by the owners of the beautiful property behind it, Donna & Duff Evers.

With some persuasion by the Evers, the city agreed to clear the old sod, put in new soil and level off the piece of land. Hundreds of pollinator plants have appeared from Gardeners and professionals all over the province, excited about the possibilities to come for this piece of land!

Donna, a well known and gifted gardener, has pretty much, single-handedly taken on the task of planting each of the little gems that will attract those valuable pollinators.

The possibilities of this little spot are endless-providing knowledge about pollinators to citizens, especially our young students, a little "eye candy" for passers-by, and of course a feast for many species of native birds, bees, butterflies, etc. One small garden, ultimately helping to ensure necessary ecosystems, wildlife as well as our future food supply.

As Master Gardeners, this Garden may provide opportunities for volunteering and promoting gardening with all its benefits!

Stay tuned for future information about this site. You can find pictures of the site posted on NSAGC Facebook site by Donna Evers.



HEMLOCK WOOLLY ADELGID



- by **Sandra Matchett**



The **Hemlock Woolly Adelgid (*Adelges tsugae*)** is an aphid like insect that attacks and kills Eastern Hemlock (*Tsuga canadensis*).

The hemlock woolly adelgid (HWA) was first reported in the eastern USA in the state of Virginia in 1951, where it was likely brought in on infested nursery stock from Japan. It has since spread northward along the eastern USA and was first reported in southwest Nova Scotia by an arborist in mid July 2017 that trees in Weymouth were infested. Surveys and samples and a dead stand of hemlocks in Yarmouth County further confirmed the results. It is now found in 5 Nova Scotia counties (Yarmouth, Digby, Shelburne, Queens and Annapolis). The HWA is also found in British Columbia but is minor due to the combined action of natural enemies and host resistance.

The hemlock woolly adelgid is parthenogenetic, that is, there are only female adelgids and reproduction occurs without males. There are two generations per year.

The first one, called sistens (plural sistentes) hatches in late spring, is wingless, lives through the summer, overwinters and survives about nine months in total. The other, the progrediens (plural progredientes), hatch in early spring, are comprised of both wingless and winged offspring, and survive about three months. Eggs are oblong and amber in colour, very small, roughly 0.36mm long and 0.23mm wide. Eggs of adult sistentes are laid in a single batch of 50-175 up to a maximum of 300 per 2 generations per year. These eggs are laid in a spherical woolly egg sac (ovisacs made of white wax threads). The nymphs, classified as first, second, third and fourth instars in development, range in size from 0.44mm long and 0.27mm wide to 0.74mm long by 0.47mm wide as they progress and are reddish-brown with a small white fringe near the front. Adult sistentes are about 1.41mm long by 1.05mm wide and are covered in a heavy waxy coat and the progredientes are approximately 0.87mm long by 0.63mm wide. The first sistentes instar nymphs move to the base of the needles and become dormant until temperatures cool. It is at this time they begin to feed and develop over the winter. During late fall and early spring hemlock produce abundant quantities of sugar and amino acids which provide good nutrition to the adelgids feeding on the twigs. The HWA causes mortality on xylem ray parenchyma cells in hemlock twigs and shoots at the base of needles, which causes the buds to be killed off and prevents the tree from creating new growth. The first instars peak at the time of northward bird migration, and it is thought that they can travel long distances hanging onto birds. Spread also happens by transfer on wood products and people.

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Vegetables: planting warm and cool season crops



- by Sue Kerr, Assignment 4, The Art of Gardening



Introduction

In all the years I've had a vegetable garden, I have never followed a planting plan—until now. Now, having thought through and finished a warm and cool season planting schedule, I understand why my “winging it” approach has produced consistently inconsistent vegetable harvests, lots of “failed” crops, a few overwhelming gluts, and plenty of disappointment. Now, I know better!

With a planting schedule, you can match the vegetables' growing preferences to the local conditions, so you plant them when they have the best chance to thrive rather than struggle to survive. It's all about understanding the difference between “cool season” and “warm season” crops—with that knowledge you can work with the crops, rather than against them. (1)

Cool season / Warm season... what's the difference?

Cool Season Crops :

- Need cool temperatures to germinate, grow, fruit and mature.
- Need to complete their growing cycles in early spring and/or in late-summer/fall. (They do poorly in the heat of summer.)
- Offer two growing cycles a year.
- Suitable for successive planting and harvesting.
- Good for direct seed sowing (putting seeds right in the ground.)

Examples of cool season crops: radish, lettuce, green onion, rutabaga, spinach, peas.

If the seed package instructions say something along the lines of “plant as soon as soil can be worked” it is a cool season vegetable.

Warm Season Crops:

- Need warm temperatures to germinate, grow, fruit and mature.
- Have to complete their growing cycle in summer. (They do poorly in the cool and damp of early spring and fall.)
- Give you one growing cycle a year.
- Not as much scope for successive planting.
- Ideally start seedlings indoors in places with cooler climates, and shorter growing season like Atlantic Canada.

Examples of warm season crops : tomatoes, cucumber, melons, bush beans.

If the instructions on the seed package say something along the lines of “plant indoors x-weeks before last frost. Transplant out when all danger of frost is past” you're dealing with a warm season vegetable.

Are planting dates different?

Yes. Cool season crops are planted early in the season, and again late in the season. Warm season crops are planted in the middle of the season.

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HEMLOCK WOOLLY ADELGID

(Continued from Page 3)

The HWA removes plant fluids causing needle drop. Signs of HWA are remnant egg sacs on trees, fallen branches on the ground, white woolly sacs at the base of hemlock needles on the underside of most recent twigs, premature bud and shoot dieback, premature needle loss, dieback of twigs and branches, and a gray casting observed from a distance. Mortality can be in as few as 4 years (4 -10 years) and sometimes up to 20 years.

Management strategies include, survey and monitoring and a notice given to industry on December 19, 2019 regarding the placement of wood movement restrictions. These restrictions include logs and foliage (such as boughs used for wreath making) to not be transported outside affected areas. Lumber is safe to transport. Kejimikujik National Park has banned all outside fire wood being brought into the park in an attempt to prevent infestation. People can slow the spread of HWA by not going in infested areas from March until early August when the crawlers are highly mobile. Crawlers and eggs can be easily spread and cause new areas of infestation.

The Federal and Provincial governments are jointly working together to further develop ways to help with the infestation. Ways we can help include planting replacement species such as red spruce and native hardwoods as our hemlock die. Silviculture increases light exposure thus increasing hemlock photosynthesis and has proven to extend the life of healthy hemlocks in lightly infested sites.

Chemical and biological control are also being developed. The primary chemical insecticide used to control HWA in the USA is Imidacloprid. This chemical can be injected directly into the tree. In Canada, Imidacloprid is a restricted pesticide and may only be used by licensed applicators. One application

can last 5-7 years but the cost is about \$100 per tree. Unpractical for the forestry industry but useful for individual homeowners who wish to preserve individual specimen trees. Research is currently underway for a biological control method using a beetle that is found in British Columbia and controls the HWA in that province. This beetle, *Laricibius nigrinus* (Little Lari) is being released in many locations in the eastern USA as a biocontrol. Ongoing research is being done in Canada for the use of Little Lari here. Controls to determine the safety of the introduction of this insect to our forests will take time but hopefully a solution will be found to save our old forest hemlocks.

I would like to extend a sincere thank-you to the Mersey Tobetic Research Institute for their ongoing research and the education to woodlot owners and homeowners on the Hemlock Woolly Adelgid.



NOTE: From Pauline Kemp

Attached to this Newsletter please find the PDF copy of the Summer 2020 issue of “**Digging In**”, the Newsletter of

The Nova Scotia Horticulture for Health Network

Enjoy!

Vegetables: planting warm and cool season crops

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Are some species more suited for the fall garden than others?

Yes. Cool season crops are more suited for the fall garden. Many of them can withstand the frosts of fall, and some of them (eg. turnips, brussel sprouts, parsnips) benefit from fall temperatures, getting sweeter and tastier after frost exposure. Some warm season crops might survive into fall if they are protected from frosts with covers or mulches, but they will not grow or thrive.

For vegetables with different planting dates, are they also suited for successive harvests?

It depends. It seems to me that the cool season vegetables are better suited for successive harvest. This may be because cool season crops tend to be one-plant-one-vegetable crops – you plant a carrot seed, you get one carrot... you plant a lettuce or onion seed, you get one lettuce or one onion. So planting successive crops makes sense if you want a lot of these types of veges, and you don't want them all ready to eat in the same week. The warm season crops—tomatoes, cucumbers, melons, beans—tend to be one-plant-many-vegetables crops. As long as they are watered and fed, and you harvest ripe produce, each plant will keep on producing vegetables or fruit until the frost kills them or they are exhausted, so there isn't much benefit in successive planting, except to try and extend the season a little, and have some insurance against unexpected frosts killing whole plants.

Are there any strategies that you would use to lengthen the potential harvest season?

There are several things that can extend the harvest season, and they all involve manipulating the temperature of the air and the soil, to make it more suitable for the plants' needs. Here are some easy options for the home gardener:

- Raised beds and a good thick mulch will give you warmer soil temperatures and perhaps an earlier thaw in spring, so you can plant cool season seeds in the ground sooner.
- Cold frames, cloches and tunnel houses create a micro-climate of warmer soil and air, so you can plant out seeds and seedlings earlier.
- Start seedlings indoors to get a jump start in spring.
- In fall, use floating row covers, thick mulch, or other protection (eg. cold frames) to stop frost killing tender plants.

A planting schedule for my garden

The table on the following pages is my planting plan for some cool season and warm season crops. Doing this plan, I looked at the average frost dates in my area, the "days to maturity" predictions on the seed packages, and the time of the season I ideally wanted to harvest the vegetables.

During the process I had a couple of epiphanies.

- In Atlantic Canada our season is short, so it's wise to plant varieties with shorter maturity

Vegetables: planting warm and cool season crops

(Continued from Page 7)

times, such as tomatoes with 50 day growing cycles, rather than 80 or 90 days.

- If I wanted to grow a few different vegetables (eg. tomato, pepper, eggplant, onion) to make a huge batch of pasta sauce, I could start with the ideal harvest date (preserving week), and work backwards to determine when to plant each crop, so they would all be ripe and ready at the same time ... magic!

PLANTING CALENDAR (2)		145 Orchard Ave, Wolfville, NS																											
		Last and first average frost date for area																											
		Plant seeds indoors																											
		Plant seeds outside or transplant seedlings outside																											
		Harvest																											
	Days to maturity (D)	March 7	March 17	March 27	April 5	April 15	April 25	May 05	May 15	May 25	June 6	June 16	June 26	July 6	July 16	July 26	August 5	August 15	August 25	Sept 4	Sept 14	Sept 24	Oct 4	Oct 14	Oct 24	Nov 3	Nov 13	Nov 23	Dec 3
COOL SEASON CROPS																													
Arugula	40																												
Green onion	30																												
Radish	23																												
Spinach	50																												
Rutabaga	95																												

WARM SEASON CROPS		Days to maturity (D)																											
		March 7	March 17	March 27	April 5	April 15	April 25	May 05	May 15	May 25	June 6	June 16	June 26	July 6	July 16	July 26	August 5	August 15	August 25	Sept 4	Sept 14	Sept 24	Oct 4	Oct 14	Oct 24	Nov 3	Nov 13	Nov 23	Dec 3
Tomato green zebra (indet)	75																												
Tomato yagoda (det)	60																												
Cucumber national pickling	55																												
Melon sugar baby	90																												
Bush bean provender	50																												

An aside on tomatoes: some varieties are “indeterminate”, meaning they will keep on growing and producing fruit until they are killed by frost. All you have to do is keep them fed and watered and pick the fruit, and they’ll keep on producing. Some varieties are “determinate”, meaning the plants will grow to a certain size, produce a finite number of fruit which is ready more-or-less at the same time, and then they die. These are useful for commercial crops, or for making batches of pasta sauce or salsa, but not ideal for daily picking for sandwiches and salads.

References

1. Lehigh County Master Gardeners, Cool-Season vs. Warm-Season Vegetables, Penn State Extension. April 2017. <http://extension.psu.edu/plants/gardening/news/2017/cool-season-vs.-warm-season-vegetables> (accessed 25 May 2017)
2. Calendar-12.com. Days Between Dates online calculator. <https://www.calendar-12.com/days-between-dates> (accessed 25 May 2017)
3. Heritage Harvest Seeds. Heirloom vegetable online catalogue. <https://www.heritageharvestseed.com/vegetables.html> (accessed 25 May 2017)

Also used Maintaining the Garden course notes extensively.

AMGA CALENDAR

- The 2020 Conference has been rescheduled to July 7-8, 2021. Conference will have the same Format & Speakers as planned for 2020
- The **2020 AGM** will be held **September 16, 2020 at 7:00pm by Zoom**. You will receive the link to log onto Zoom prior to the Meeting.
- **Volunteer hours** will be registered in June **2021**. Hours accumulated in 2020 will also be Included at that time along with Fees for 2021.
- Deadline for submissions for the Fall issue of **Garden Master News** will be **September 1/20** Forward articles to: suestuart@bellaliant.net
- **The North American Rock Garden Society** Conference **June 26-27 /20** via **Zoom** <https://www.nargs.org/conference>
- **Gardening information sessions** for AMGA Members Monday evening via Zoom. Check details at: <https://www.atlanticmastergardeners.ca/members-only>

AMGA 2020 EXECUTIVE

Contact Executive members by e-mail at:

atlanticmastergardeners3@gmail.com

PRESIDENT: - Jim Sharpe

VICE-PRESIDENT: - Sandra Matchett

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SECRETARY: - Gigi Pelletier

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MEMBER AT LARGE (4): - Heather Connors -Dunphy
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