CROSS POLLINATION

Halton Master Gardeners Monthly Newsletter
SEPTEMBER 2022 | VOL. 15 ISSUE 8

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Halton Region
Master Gardeners

Virgin's Bower - A *Native Climber to Add to a Trellis, Pergola or Fence*

Clematis virginiana

By Kirsten McCarthy, Halton Master Gardener

My backyard is enclosed by an old, battered, rusted chain link fence which doesn't provide a lot of privacy between us and our neighbours. It's a real eyesore—the one piece of the yard I am pretty unhappy about. It's a problem that needs to be fixed. It requires a solution. It is crying for a climbing plant that will cover the ugly and create a new show-stopping backdrop to the yard while also providing privacy. It needs Virgin's Bower, (*Clematis virginiana*) to wind its way through the diamond shaped spaces and bring harmony, pollinators and beauty to the yard.

Cultural Requirements

Clematis virginiana, commonly called Virgin's Bower or, in some places, Woodbine, is a native, fragrant, fall booming climbing vine with a vigorous, growth habit. If given support, it will climb rapidly with the aid of tendrilous leaf petioles to 20 feet high and 3-6 feet wide. Without support, it will sprawl along the ground as a dense ground cover. It features sweetly aromatic, pure white flowers with four narrow petal-like sepals. Its gorgeous blooms start in late August and continue through to October typically covering the foliage. Virgin's Bower is easily grown in average, medium-to-wet, well-drained soils in full sun to part shade. This species will thrive and bloom in considerable shade and blooms on the current year's growth.

Image: Kirsten McCarthy

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VIRGIN'S BOWER (CONT'D)

Pruning

Virgin's Bower is a prolific grower and will benefit from a pruning to keep it tidy looking and also encourage flowering. Pruning can be as low as 8 to 12 inches above ground if a couple of healthy leaf buds are on the remaining stalks. The best time to prune for the next year is late fall to early spring.

Prune Virgin's Bower's early in spring to encourage more flowering.

Virgin's Bower's happily grows on a chain link fence, providing privacy and beauty.

The seadheads of Virgin's Bower's give it winter interest.
Image: A Cultivated Art Inc

Pollinators

The flowers are highly attractive to honey bees, many species of native bees, several species of butterflies and hummingbirds. The caterpillars of several moths feed on the foliage. Songbirds will also nest in the thick foliage which tends to be relatively deer resistant.

Beware of Impersonators

Sweet Autumn clematis (*Clematis ternifolia*) has a very similar appearance and habit, but it is an **invasive** non-native plant. It will self-seed readily in your garden. Luckily, it's fairly easy to tell the difference between the two. The leaves of our native Virgin's Bower are toothed, while the leaves of the invasive Sweet Autumn clematis have smooth edges. Make sure you check the older leaves further down the vine, as new leaves of Virgin's Bower can look very similar to the invasive variety.

Virgin's Bower's toothed leaves on the left.

Sweet Autumn clematis (Clematis ternifolia) right.

Sweet Autumn clematis (Clematis ternifolia) will readily self-seed and can invade natural areas.

SEPTEMBER 'TO-DO' LIST

by Claudette Sims, Halton Master Gardener

- ☐ **Perennials –** Divide or transplant spring & summer flowering perennials, e.g., iris, peony, phlox, wood poppy, native anemone as the weather cools. Water the new divisions well. Fill gaps in borders with asters, ornamental cabbage & mums to extend the colour to the end of the season. Leave some goldenrod flowers for pollinators!
- ☐ **Feed the Soil –** Add compost or manure to garden beds & lawn. Plant cover crops such as red clover & winter rye on bare soil in veggie gardens.
- ☐ **Veggies –** Harvest green tomatoes & ripen indoors, freeze or use in recipes. Sow seeds to grow your salad garden, e.g., lettuce, spinach, arugula and radishes.
- ☐ **Trees –** Plant new trees and shrubs now to allow them at least six weeks before frost to form roots. Water transplanted trees until freeze up.
- ☐ **Houseplants** – Prune back tropicals such as hibiscus & move them into some shade to help transition indoors for the winter, where the light levels are lower. Spray plants with commercial insecticidal soap as needed & move houseplants indoors gradually as nights get cool. **Orchids** need a drop in temperature of 5 degrees (17/18C at night and 23C in the day) for 2 to 4 weeks to trigger reblooming.

"Keystone plants are critical to maintain complex food webs that support butterflies, native bees, and birds. 96% of our terrestrial birds rely on insects supported by keystone plants."

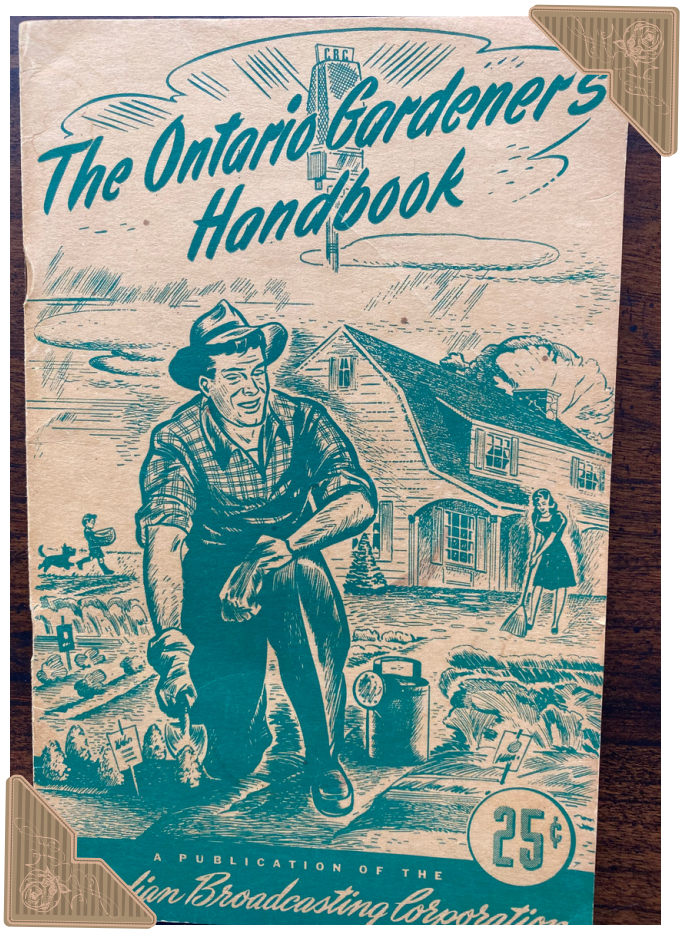
- ☐ **Lawn & Weeds –** Choose a rainy day to overseed lawn, then cover seeds with a top dressing of fine compost or manure. Half the height of the blades of grass should still be visible. Fall feeding increases root growth for an early spring green up. Tired of your patchy brown lawn? Consider an alternative like ecolawn which requires less water, mowing and feeding. Info including how to convert a traditional lawn here. Pull, rake or cut off weeds at ground level. Keep pulling & cutting bindweed to reduce the seed bank in soil.
- ☐ **Leaves –** Attach a grass catcher bag to the mower and collect a ready supply of chopped leaves to layer into the compost pile or use as mulch on your veggie or flower garden.
- ☐ **Bulbs –** Plant spring flowering bulbs such as crocus, tulip, hyacinth now, until before freeze up of soil. Water bulbs after planting. Avoid invasive bulbs like scilla.
- ☐ **Collect seeds** for winter sowing and herbs for drying.

Perennial "Keystone Plants" That Bloom in September

Showy Goldenrod | Heart Leaved Aster | Blue Stem Goldenrod | New England Aster | Woodland Sunflower

PLUS ÇA CHANGE? – ONTARIO GARDENING IN 1947

By Allyn Walsh, Halton Master Gardener



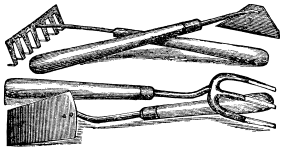
(fig. 1)

I recently celebrated a birthday and a good friend who loves sourcing old things presented me with a 1947 copy of The Ontario Gardener's Handbook. A publication of the CBC, it cost 25 cents for its 60 pages, and was described as a digest of CBC's Sunday morning broadcasts on gardening in Ontario. These broadcasts were given by Bob Keith, described as a seedsman by occupation. So, what has changed and what is the same in the world of gardening? A lot of both, it would seem!

A look at the cover revealed a man with a trowel, properly gloved and hatted, kneeling by his well labelled rows. In the background is a woman, with a rake (or a broom, hard to tell), wearing a dress and daintily shod (fig. 1). Now I do recall I once had a neighbour who used to pull weeds wearing a charming yellow linen dress. She was a 94-year-old dynamo, but that is the last time I've seen someone gardening all dressed up. I might add that I haven't seen anything for sale for 25 cents for a very long time!

I settled in to read, starting with the first section on soils and their preparation. The descriptions of soil textures and the importance of adding organic matter has stood the test of time. However, we are unlikely nowadays to add coal ashes or coarse sand to improve soil texture and adding peat moss with the environmental impact of extracting it is now frowned upon. It was not surprising to read about double digging, a method of soil preparation that I was happy to say goodbye to years ago, not only because of the back breaking work it entails but also because we now know so much more about the importance of microorganisms like mycorrhizae and the importance of not disrupting them by excessive digging. And I read on.

A section on constructing and maintaining a new lawn seemed pretty much what is done now, although there was no suggestion of discouraging the planting of a large lawn, with its greedy appetite for water and fertilizer. And the occasional use of 2,4-D weed killer was recommended to keep the lawn in weed-free condition. Yikes! (Younger gardeners may not be aware that, in Ontario, the cosmetic use of herbicides was banned in 2009.)



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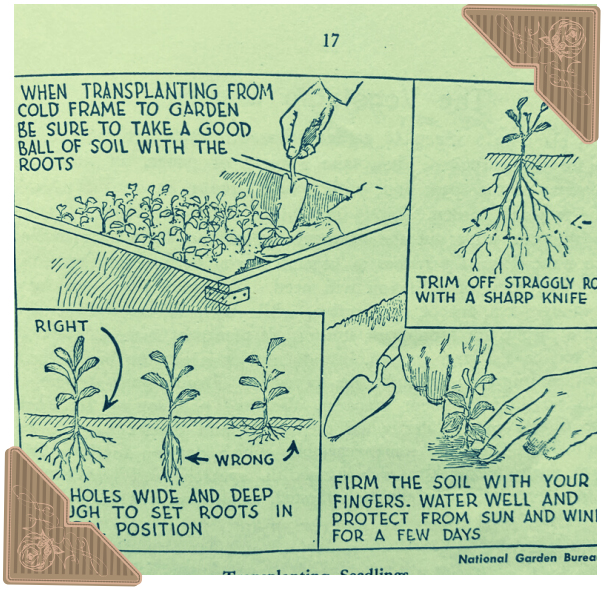
PLUS ÇA CHANGE? (CONT'D)

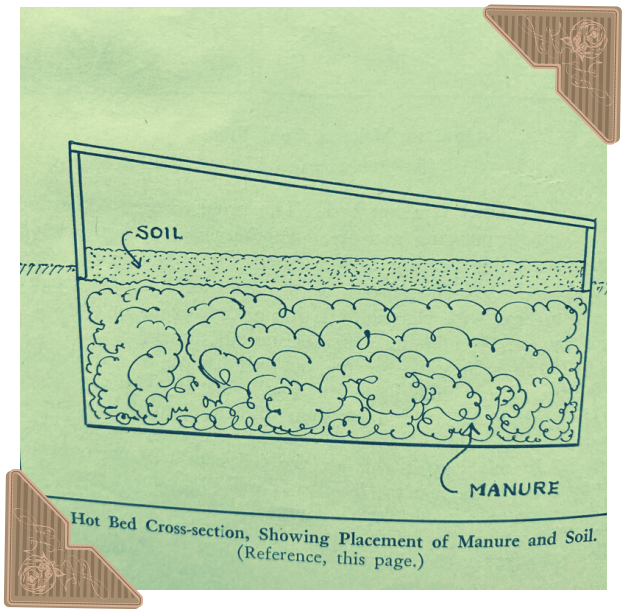
It appeared that transplanting trees and shrubs was done in 1947 just as it is now—digging an appropriately size hole and backfilling it with the soil that came out rather than heavily enriched soil which would discourage the roots from reaching out beyond the hole. And I found very nice sections on building a cold frame and starting seeds inside the house (fig 2).



(fig. 2)

I had never heard of a “hot bed” before. Apparently, this technique was used to start plants outside in late winter for those without a greenhouse. One could construct a hot bed heated by fermenting manure (fig 3). Electrical heating cables can also be used, but it was much more economical to get hold of fresh horse manure, which actively ferments to provide the necessary heat. The instructions sound rather complicated and my access to fresh horse manure is limited, much to my husband’s relief. So I will continue with my winter sowing strategies and indoor grow lights!

I enjoyed the section entitled “Some Important Garden Jobs” and those jobs and techniques will seem very familiar to us all: weeding and cultivating, mulching, and making compost—and it is safe to assume that these jobs will likely be with us unchanged for the next 75 years at least.



(fig. 3)

It seems that we grow the same tried and true vegetables as was done in 1947 but we certainly don’t see the liberal use of arsenic, DDT and other poisons recommended for insect control, thank goodness! Other sections briefly mention perennials (chrysanthemums, irises, lilies, roses, and peonies) and soft fruits such as raspberries, strawberries and black berries. Annuals discussed are the classic marigolds, larkspur, alyssum, and snapdragons. At no point is there any recognition of some of our beautiful native Ontario plants! One must suppose that 75 years ago they were considered “weeds.”

So, some of what we gardeners do in Ontario is not much different from what was done 75 years ago. What has changed is our understanding of the relationships and the interdependence between all living things, whether plant or animal, and our role in supporting a healthy and sustainable ecosystem. We now recognize that poisoning insects in our garden is harmful, that native plants support the living creatures with whom they have co-evolved, and that gardening is a contribution to more than the local beauty. Who says things always stay the same? ✽

JOURNEY SOUTH

by Claudette Sims, Halton Master Gardener

A magical event is about to take place—monarch butterflies begin their migration south in September! While each adult monarch butterfly lives for two to six weeks in summer, the migrating generation lives up to seven months in order to travel 4,000 km to Mexico and survive through the fall and winter. How can gardeners support these charismatic creatures?

Grow More Caterpillars

Because the caterpillars of the monarch butterfly feed exclusively on milkweed species, planting milkweed will increase numbers of monarchs born here in Ontario. Common milkweed (*Asclepias syriaca*) is likely the best known and is actually growing in popularity amongst gardeners. It has gorgeous and fragrant pink flowers, but it can spread aggressively via rhizomes. It is well suited to a large garden that can accommodate its spread. To control it, simply remove seed heads and dig up any unwanted plants.

Butterfly milkweed (*Asclepias tuberosa*) boasts flashy orange flowers and will rebloom in fall, giving it a long bloom time. The long tap root of butterfly milkweed means it does not spread aggressively, but you need to consider its needs (full sun) before planting as it is difficult to transplant. Swamp milkweed (*Asclepias incarnata*) prefers a moist soil but once established it can tolerate drier conditions. Individual plants maintain a clumping form. Poke milkweed (*Asclepias exaltata*) is unique because it actually prefers shade, even tolerating dry shade if the soil has lots of organic matter.

Close up of common milkweed flowers. Image: Cathy Kavassalis

Fall Nectar Sources

Monarchs can't make the journey south without eating. They depend on a supply of sugars to give them the energy to fly. Asters, goldenrods and native sunflowers are some of the best plants to provide the rich nectar supplies needed. How many of these late blooming plants do you have in your garden?

- Native sunflowers (*Helianthus* spp., e.g. woodland sunflower (*Helianthus divaricatus*)
- Asters (New England aster (*Symphyotrichum novae-angliae*)
- Goldenrods (*Solidago* spp., e.g., Canada goldenrod (*Solidago canadensis*)

Overcoming Environmental Problems

Migrating monarchs face increasingly difficult problems. Climate change means that more frequent storms and weather conditions can stop them before they arrive. Habitat loss and fragmentation, industrial agriculture and illegal logging in Mexico continue to decrease their overwintering range. Gardeners can advocate for this iconic creature by supporting organizations that advocate for real change, e.g., World Wildlife Federation, Canadian Wildlife Federation.

Find out More!

- Journey North
- Native Milkweeds for Ontario Gardens
- Native Sunflowers for Ontario Gardens
- Native Asters for Ontario Gardens
- About Monarch Butterflies (World Wildlife Federation)

GARDEN VISITORS OR GARDEN PESTS? PART 2: RACCOONS

By Liza Drozdov, Halton Master Gardener

Raccoons, often referred to as 'Trash Pandas', are more likely to eat your garbage than your plants. So while the larger ones might crush plants as they blunder through your garden, they aren't the worst garden pests.

Image: Liza Drozdov

They'll do their best to get at your bird feeder and of course will spill seed everywhere in the process. Raccoons are nocturnal and they'll eagerly dig up your lawn looking for grubs. In a way, they're doing you a favour—if the raccoons didn't dig them up, the grubs might kill the patch of grass. And those grubs grow into Japanese beetles that skeletonize the leaves of some of your favourite shrubs. (See: What Can I Do about Japanese Beetles).

Image: University of Maryland Extension

In the veggie garden you might notice some tracks around the cornstalks and even on leaves and husks. Maybe you've seen claw marks or broken corn stalks. Raccoons are after the corn, not the husk, and will break the stalks in the process of climbing. You'll know they've been there if you see partially eaten ears with the husks pulled back.

Image: Buckeye Yard & Garden Online: A Real Sweet Dilemma

Some of the worst damage raccoons do is to garden ponds. They're looking for tasty fish and frogs and will uproot pond plants, stir up muck, and make a huge mess while doing so.

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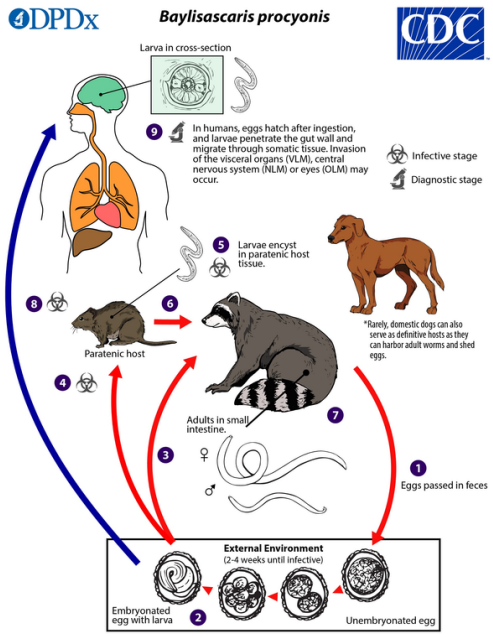
GARDEN VISITORS OR GARDEN PESTS? (CONT'D)

There's a myth that raccoons are attracted to ponds because they prefer to wash their food before eating. That's definitely what it looks like if you observe them, but it's unlikely that an animal that eats garbage would be so fastidious. Another theory is that they lack saliva and the additional water is beneficial to their digestion, but research has shown that raccoons have normal salivary glands.

There are more theories on why they seem to wash their food. It may be that they are trying to learn more about it through their paws which have many pressure-sensitive receptors (called mechanoreceptor cells), five times more than most mammals, matched only by primates like humans.

The most dangerous issue with raccoons is the toxicity of their feces. It is estimated that about 80% of raccoons in Ontario carry roundworm (*Baylisascaris procyonis*) in the intestine where they produce microscopic eggs that are eliminated in feces. One roundworm can produce 100,000 eggs a day that can survive in soil for several years after the raccoon passes them.



Centre for Disease Control & Prevention

Care must be taken when cleaning raccoon feces--wear gloves, a mask and dispose of the waste, double-bagged, in your trash. Real problems can arise if raccoons decide to make a part of your yard into their latrine site where they will regularly defecate. If you discover a raccoon latrine site you can hire a professional service to remove it, or just carefully clean and disinfect the area. HERE'S a link to some more detailed information from the Centre for Disease Control on clean-up of latrine sites. That's usually enough to encourage the raccoons to choose a different spot for their latrine.

There are many gadgets and devices designed to frighten raccoons and other wildlife. Flashing lights, sound devices, and motion-activated water sprays are available. Radios, scarecrows, flags, and windmills have also been used. These may be effective for a few days but raccoons quickly learn that there is no real threat. If you're sceptical, check out the study done by the National Wildlife Research Centre with captive raccoons and puzzle boxes. According to the Wildlife Management Team at Cornell University, there are no effective deterrents or scare devices for raccoons. There are, however, some steps you can take to reduce raccoon issues around your garden.

Image: Innovative Problem-solving in Raccons

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RACCOONS (CONT'D)

Exclusion - preventing entry into the garden or home

- Cutting tree/shrub limbs near structures
- Sealing up gaps under porches, decks or woodpiles
- Electrical fencing to surround the corn in the vegetable garden
- Filament tape (tape with nylon threads) to wrap partially ripe ears of corn
- Sheet metal caps for chimneys

Remove food sources:

- Remove any pet food from outdoor areas - especially important at nightfall
- Pick up fallen fruits and nuts frequently
- Avoid disposing of vegetable garden debris (i.e., rotten tomatoes) in the garden
- Secure lids for garbage and green bins
- Avoid meat scraps in compost, use an enclosed plastic compost bin, place a weighted object on the lid or line all sides with wire mesh
- Remove water sources - including the kids' pool.

READ MORE

- Raccoon latrines and Veggie Gardens NOT - University of California Master Gardener Program
- Raccoons - University of California - Integrated Pest Management
- Raccoons - Wildlife Management Team, Cornell University Extension ✽

Raccoon Fun Facts From PBS

- The raccoon's scientific name *Procyon lotor* is neo-Latin and translates to "before-dog washer."
- Christopher Columbus is the first individual we know of to have written about the species.
- The raccoon's taxonomy has been debated over time. Carl Linnaeus placed the raccoon in the Ursus genus—first as *Ursus cauda* elongate ("long-tailed bear") and then as *Ursus lotor* ("washer bear"). In 1780, Gottlieb Congrad Christian Storr created a separate genus for the species, *Procyon,* meaning doglike.
- The English word "raccoon" is an adaptation of a native Powhatan word meaning "animal that scratches with its hands."
- In the winter, the raccoon does not hibernate, but can sleep in its den for weeks.
- A raccoon can run at speeds of up to 15 miles per hour.
- The raccoon is a good swimmer and can stay in water for several hours.
- The species makes a variety of vocalizations including hisses, whistles, screams, growls and snarls.
- A series of studies in the mid-to-late-twentieth century show that a raccoon can remember solutions to tasks for up to 3 years.

Q&A

By Hariette Henry, Halton Master Gardener

> I have a small Hydrangea quercifolia hedge in my back yard that provides privacy between my lounge area and my neighbours. The plants were placed there five years ago and they had been doing fine. As they have grown, we've realized that they need to be a little further apart. Last fall I decided to start by moving one plant and to my dismay it wilted severely and has taken at least a year to recover. I would now like to complete the transition and move the last two plants, and I'd like to know how I can move them safely and without any ill effects?

It is always best to put plants in the right place the first time around. However, circumstances change and no matter how carefully we plan, moving a shrub can become a necessity. For trees and shrubs, fall is generally considered the best time of the year to transplant, as temperatures are getting cooler and the amount of rain is increasing. The term used to describe plants that are not doing well after a move is "transplant shock". Symptoms include wilting, yellowing and curling of leaves, and reduced plant growth overall.

Figure 1: Shows shrub affected by "transplant shock", has recovered but now smaller than the others.

"Transplant shock" also occurs as a result of improper planting after the move. A common cause of plant root failure is "wet feet" caused by improper soil amendments (the bathtub effect). When planting in heavy soil, be sure to use the same heavy soil to fill the planting hole. Adding soil amendments (peat moss) is not recommended, as a light soil mix surrounded by heavy soil can result in trapped water. This suffocates the roots and eventually results in a dead plant. Planting depth is also extremely important. Deep planting results in suffocated roots, while shallow planting causes root stress from temperature and moisture fluctuations in shallow soil.

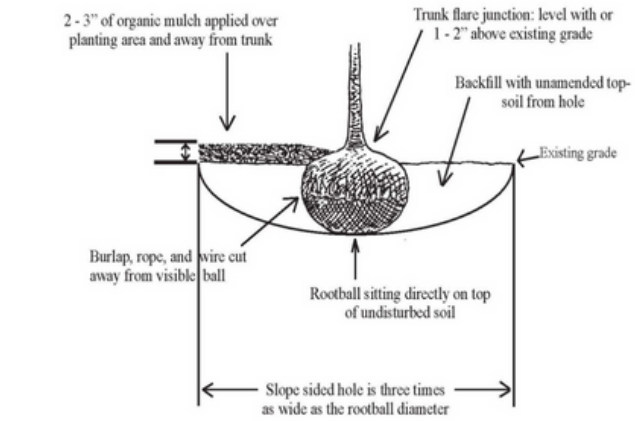


Diagram illustrating proper planting procedure for a tree or shrub.
Diagram illustrating proper planting procedure for a tree or shrub.

Figure 2: Guidelines for Planting Trees and Shrubs, UMass Extension, Landscape, Nursery & Forestry Program

Q & A (cont'd)

New transplants may not only suffer from water stress but they may also be susceptible to injury from weather, insects or disease. This phenomenon need not be a certainty. There are ways to improve your chances of successfully moving a plant, with a minimum of stress and damage.

When transplanting established shrubs, you will inevitably damage many of the feeder roots during the transplant process. Feeder roots are responsible for absorbing the majority of essential nutrients and water. To minimize this shock to the plant, root pruning is recommended several months to one year in advance of the move.

Pruning the roots encourages the plant to produce a flush of new feeder roots. The goal of this process is to allow the plant to develop new feeder roots within the zone of the future root ball that will be moved. Minimum root balls (sized for specific plant sizes) are shown in the table below. For a medium sized shrub of 4', the minimum size of the root ball should be 16" wide and the depth 12".

Root Ball Sizes for Deciduous Shrubs

Height	Minimum Diameter Ball	Depth
12 inches	9 inches	7 inches
18 inches	10 inches	8 inches
2 feet	12 inches	9 inches
3 feet	14 inches	11 inches
4 feet	16 inches	12 inches
5 feet	18 inches	14 inches
6 feet	20 inches	14 inches
7 feet	22 inches	15 inches

Figure 3: Recommended root ball sizes for deciduous shrubs, Clemson University, College of Agriculture, Forestry and Life Sciences.

When to root prune depends on when you wish to move the plant. Plants moved in the fall (October-November) should be root pruned in March. Those moved in spring (March) should be root pruned in October. Root prune after the leaves have fallen from deciduous plants in the fall or before buds break in the spring.

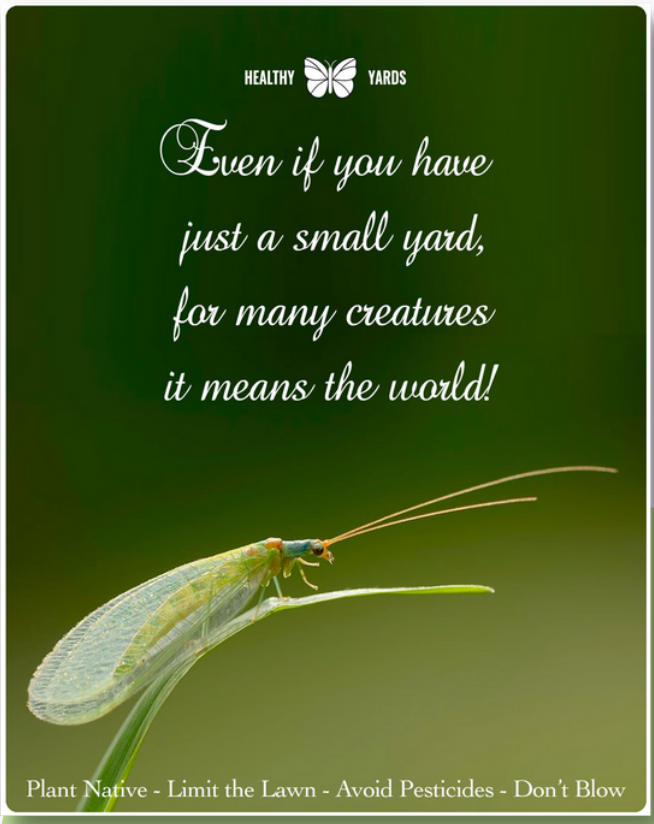
Methods of root pruning vary. One method called spading involves cutting through the existing roots with a spade (a short-handled shovel, usually about 4 feet long with a flattened, rectangular blade), making a circular cut all the way around the plant. The edge of this cut should be just inside the edge of the future root ball. Spading works best for shrubs. Another method called trenching is often used for trees and large shrubs. Once the roots are pruned it is important to regularly ensure that the root ball maintains a proper moisture level. Check for moisture a few inches below the soil and give the root ball a good soaking if it appears dry.

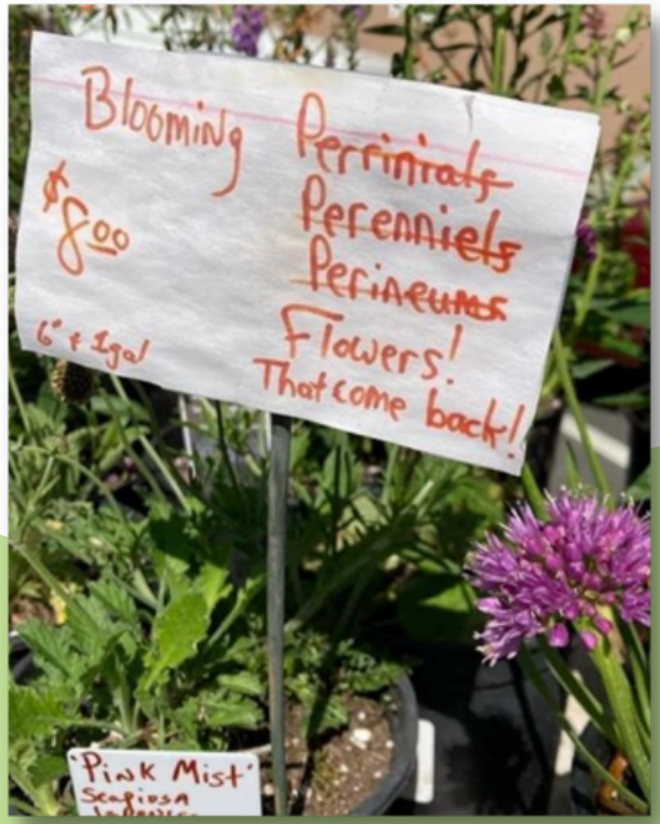
Prior to moving the plant dig the hole in the new location. Soak the root ball of the plant with water as this will encourage the soil to stay together during the move. Carefully dig the soil away from the ball and wrap it in burlap or in whatever will keep the soil together. Then move the plant with a cart, tarp or piece of cardboard. Make sure the plant is set at the same depth in the new hole and fill around the root ball with topsoil. Mulch lightly with 3" to 4" of mulch, keeping the mulch off the trunk or stems of the plant. And be sure to provide adequate water throughout the entire next growing season. ✽

Take a Closer Look!

- **Transplanting or Moving Trees and Shrubs in the Landscape**, PennState Extension, The Pennsylvania State University.
- **Transplanting Established Trees and Shrubs**, Clemson University, College of Agriculture, Forestry and Life Science.
- **Transplant Shock of Trees and Shrubs**, Purdue University, Cooperative Extension Service
- **Guidelines for Planting trees and Shrubs**, UMass Extension, Landscape, Nursery & Urban Forestry Program.

GARDEN INSPIRATION!





Gardening Humour Facebook

What's Growing On?

Fall Farmers' Market and Native Plant Sale at EcoHouse in Hamilton

Friday, Sept. 9th 4 PM - 9 PM
Click here to register

We're here to answer your garden questions!

Send us an email. It's what we do best!

- Do you have a passion for gardening and sharing your knowledge? Learn more about joining us.
- Interested in attending a meeting? Contact us at: Halton Master Gardeners

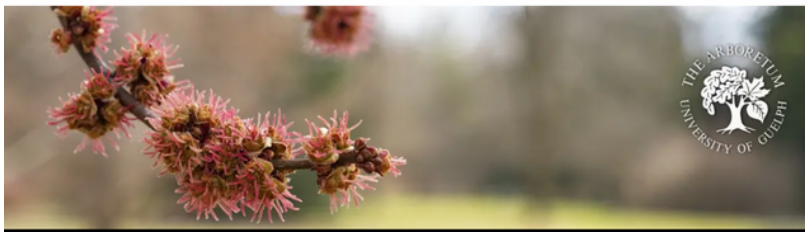
Check our calendar for events

Join in planting 300 Native trees!

Saturday, September, 10 th
9:00 AM -1:30 PM
John Prentice Park, Hamilton

Register **here** for this free event

What's Growing On ?



Arboretum Expo and Virtual Plant Sale Auction

September 9th and 10th
(In -person events)
The plant sale auction
is online beginning Sept. 2nd

Check here for more details

Farmers' Markets in Halton

Check locations here

Support local growers and eat fresh!

Halton Region Master Gardeners

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Royal Botanical Gardens

- Virtual field trips for K to Grade 12
- Learn more about heritage trees
- Visit the Arboretum

About Our Newsletter

Cross Pollination is published monthly from February to December and is written and prepared by our dedicated volunteers. Halton Master Gardeners are experienced gardeners who have studied horticulture extensively and continue to upgrade their skills through technical training. We strive to provide science-based, sustainable gardening information to the general public. The information in our newsletter has been verified by our volunteers to the best of our abilities, but given the scope of horticulture and science some concepts may not reflect current knowledge. Your donations support our work!