

Cross Pollination

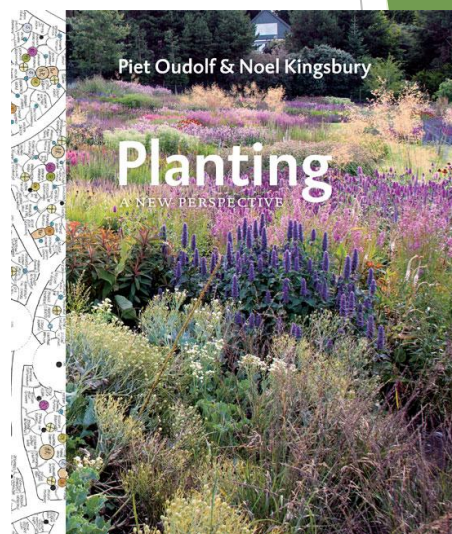
Newsletter of the Halton Master Gardeners



February
2019

February Garden To Do List

- ❑ **Houseplants** - Consult our [December newsletter](#) 'to do list' for information on houseplant care in winter.
- ❑ **Attend** a local Seedy Saturday event in your community to learn about and exchange seeds.
- ❑ **Clean pots & containers** to be used for indoor seed starting to reduce fungal issues & disease.
- ❑ **Planting Dates** - Use this [Seed Starting Date Calculator](#) to determine when to start your seeds.
- ❑ **Sprinkle powdered cinnamon** over the soil when growing seedlings to help reduce "[Damping Off](#)".
- ❑ **Watch** - [Paper Towel & Baggy Seed Starting Method](#) to learn an easy way to start seeds with Guelph Master Gardener Robert Pavlis.
- ❑ **Winter Sowing of Hardy Seeds** - Start seeds outside in recycled clear, covered containers. If starting milkweed seeds, do not cover the seed as they need light to germinate. Find our [more here](#).
- ❑ **Grow** edible sunflower microgreens. Learn how from [Savvy Gardening](#)
- ❑ **Dahlia, calla, canna etc.** - Check stored bulbs for rot or signs of disease. Spray lightly if bulbs are dry or shriveled.
- ❑ **Blueberries** - Late February/early March, prune out dead, damaged, diseased wood to an open shape to increase air circulation. More info [here](#).
- ❑ **Bird feeders**- Keep bird feeders topped up for our winter residents.
- ❑ **Order plants & Seeds** from this extensive list of suppliers by [Three Dogs in a Garden](#) blogger [Jennifer Connell](#)
- ❑ **Read** - [Planting: A New Perspective](#) By Piet Oudolf and Noel Kingsbury For more reading suggestions visit our website under "[Learn/Books & Magazines](#)"



"Cinnamon has been reported to reduce 'damping off' in seedlings. Try sprinkling it on soil after planting seeds. "



And it smells good too!



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From Seeds to Garden Transplants 5 Part Series



David Marshall's pond garden

By David Marshall MG
In the foreground is Profusion Zinnia. Behind the pond are Begonia boliviensis. The tall yellow ones are Rudbeckia triloba and the tall orange ones are Helenium. In front of them are pink and white Echinacea (coneflower).

Editor's note: I'm delighted to feature our 5-part series that steps us through the entire process from building your own seed-

starting set-up through to planting your hardy transplants outdoors. In the final month of the series, David will tell us about taking cuttings from flowers and shrubs.

Starting Plants from Seeds Indoors - Part 1

It's only February, but it is already time to think about your summer garden. Whether you grow flowers or vegetables, it's fun to start your own seedlings. You can grow varieties which you will not find in stores, and you can save a lot of money.

Window sill growing is not really satisfactory because in March, day length is not adequate so your plants will be thin and spindly. Grow lights are the answer but a commercially available set-up can easily cost as much as \$900 or more - that's a bit daunting. It is, however, easy to make your own grow light set-up at a fraction of the cost.

Lighting: Traditionally 24 or 48 inch fluorescent tubes were used, but the advent of compact fluorescent bulbs (CFLs) and more recently light emitting diode bulbs (LEDs) have made the job easier. I mostly use LEDs now because they are more efficient, give off less heat, and last longer.

Continued



Look on the
bright side of
Winter!



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Starting Plants from Seed cont'd

The quality of the light is important for good growth. The visible spectrum runs from violet through blue, green, yellow, and orange to red, but plants use mostly the blue end of the spectrum for germination and growth, and the red end for bud formation and flowering. Each of these colours is associated with a K value (Degrees Kelvin) ranging from around 3000K for warm white, 3500 - 4500K for cool white, and 4500K - 6500K for daylight. The 'K' number or sometimes just the name such as warm white, cool white or daytime is printed on the bulb and the box.

Because we are concerned with germination, we need the higher numbers, so I use a mix of daylight and cool white which gives mostly blue with a bit of red to help bud formation.

3 DIY Cost Effective Set-ups

These three grow light fixtures are easy to make yourself. Once the fixture is made, you just need to plug it into a timer set to 16 hours of light.

DIY Set-up 1

The first setup is the most economical and made almost entirely from Styrofoam.

Materials

- 1 Styrofoam handipack (About \$14 from Home Depot) which consists of 8 sheets of 48" x 14" $\frac{3}{4}$ inch thick Styrofoam; enough for two units. (You can, of course, use any size Styrofoam sheet and cut to the required dimensions)
- 4 plastic lamp holders
- 4 light bulbs, (LED, CFL or a mix) 13 watt for CFLs or 9 watt for LEDs
- 1 piece of 24 inch by 12 inch plywood
- 2-strand electric wire and a plug
- 12 three inch nails and some white glue



Setup 1 is made from Styrofoam pieces and the light source. In this picture, it simply sits on a little table. Any platform will do the trick.

Make the Styrofoam box

Cut 3 of the Styrofoam sheets in half such that you have 6 24"x 14" pieces.

To make the base, glue two pieces together along the 24" sides for the base such that you have a 24 x 28" rectangle.

To make the 3-sided box, set up three pieces so that the box is 14" high, with 24" sides. Pin the sides together with nails and a dab of glue. Tip: Not too much if you want to disassemble it later.

Cut a 4 inch strip (4" x 24") from the remaining piece and use it to close the top part of the fourth side. This leaves a gap so that you can slide the seed flats out for watering. (not pictured)

Continued



What did the
carrot say to the
wheat?

Lettuce rest,
I'm feeling
beet.



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Starting Plants from Seed cont'd

Make the Light Source

To make the light source, wire the four lamp holders together, attach the plug, and screw them near the corners of a 24 inch by 12 inch piece of plywood which will rest on the top of your box.



Alternatively, if you don't want to use bulbs, you can buy a 24" two-tube fluorescent fixture with T5 tubes (cool white or daylight).

Set on top of the Styrofoam box and plug into the timer and an outlet.

DIY Set-up 2

Use the same box as in Set-up 1, but for the light source, screw a lamp holder onto plywood as before and join together three twin lamp holders (also called double socket adapters) as shown in the photograph to give a four bulb 'fixture.' In this case, screw the light fixture into the middle of the piece of plywood rather than in the corners.



Both Set-ups 1 and 2 hold two flats. If you prefer, you can make them 36" wide to hold three flats. Remember to adjust the lighting source by using 6 bulb instead of 4 bulbs.

DIY Set-up 3

Setup 3 is even easier. Instead of building the box from scratch, use a 24" wide three or four shelf resin shelving unit made from a kit sold by most big box stores. (this is HDX brand). It uses 1 1/4 inch plastic tubes easily assembled without tools to hold six or eight flats and costs about \$40.

Make a bulb holder as above and support it over the shelves by 14" high Styrofoam or plywood pieces at each end of the shelves.

In any of the 3 Setups, you can of course use 24" fluorescent tubes as before, but it will be more expensive.



Continued



Remember that children, marriages, and flower gardens reflect the kind of care they get.

— H. Jackson Brown, Jr.

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Starting Plants from Seed cont'd

If you have any questions regarding this feel free to call me at 905-827-2564 (David Marshall).

Even if you are not planting seeds, the seed catalogues make interesting reading. I mainly use four suppliers and they will be happy to send you their catalogues, or you can browse and order on line.

<u>William Dam Seeds</u>	905 638 6641
<u>Stokes Seeds</u>	1 800 396 9238
<u>W.H.Perron</u>	1 800 723 9071
<u>Veseys Seed</u>	1 800 363 7333

William Dam is local and have an excellent retail store and in summer a big display garden.
279 Highway 8 Dundas ON L9H5E1

Next month we will discuss the planting and maintenance of your seeds.



David's Favourite Seed Catalogues



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Photos courtesy of Phytostudios.com

Plants as Mulch

by Janet Mackey
Master Gardener in Training

As experienced gardeners, we all know that if there's bare soil, a plant will take its place, usually an opportunistic plant with more aggressive or invasive attributes. In the past, professional landscapers have filled these areas with very

attractive bark mulches to allow space for plants to grow and fill in the area as well as providing all the benefits of mulches. (i.e., decreased competition from weeds, retaining soil moisture, preventing erosion etc.). Some landscape designers and architects are looking at landscapes in a new way that considers the need for biodiversity that includes native plants species.

Thomas Rainer, a leader in the *New Perennial Movement*, according to *The New York Times*, spoke recently at the Landscape Designer Conference at the Landscape Ontario Congress in Toronto. In his landscapes, his objective is to create outdoor spaces that are *beautiful, bio-diverse and low-maintenance*.

He calls this a *Designed Plant Community*. Part of this is achieved by using plants as mulch and considering the sociability of plants. To identify plant sociability, Rainer rates plants on a scale of one to five; one, being the least aggressive, (i.e., staying in place), to five being the most aggressive. Here are some examples:

Level of Sociability	Grouping for Planting	Examples
One	Individual plants or small groups	<i>Panicum virgatum</i> Spp. (Switch Grass), <i>Calamagrostis</i> Spp. (Karl Forster Feather Reed Grass), <i>Aruncus dioicus</i> (Giant Goat's Beard)
Two	grow best in small groups of 3-10 plants	<i>Hemerocallis</i> Spp. (Day Lilly), <i>Monarda</i> Spp. (Bee Balm) <i>Aster</i> Spp., <i>Echinacea</i> Spp. (Coneflower)
Three	grow best in groupings of 10-20 plants	<i>Rudbeckia</i> Spp. (Black-eyed Susan), <i>Geranium maculatum</i> (Wild Geranium), <i>Heuchera</i> (Coral Bells)
Four	Expansive Groups	<i>Carex</i> (Sedge), <i>Allium</i> , <i>Waldsteinia fragaroides</i> (Barren Strawberry)
Five	Plants that fill large areas	<i>Carex pensylvanica</i> (Pennsylvania Sedge), <i>Tiarella cordifolia</i> (Foam Flower)



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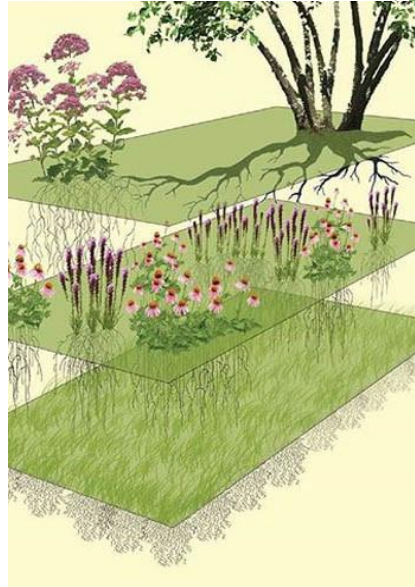
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Plants as Mulch cont'd

Ranier's team at [Phyto Studio](#), arranges plants in three distinct layers which can also include a fourth, temporary layer.

First Layer: The first layer is used for Structural Plants. These plants are the backbone of the planting. They include large plants such as trees, dominant shrubs, and even tall perennials or grasses. The emphasis in this layer is about the plant form - often a distinct shape or silhouette. Generally they are also longer lived but may only become more dominant in the landscape after several years of growth, providing year-round structure. This group would include less than 15 per cent of the plant choices in the landscape. Some of Rainer's examples include:

- Switch Grass 'Northwind' *Panicum virgatum*
- Swamp Milkweed *Asclepias incarnata*
- Blazing Star *Liatris spicata*



Second Layer: This layer is used for Seasonal Theme Plants. These plants will dominate the landscape for a particular period of the growing season. It might be because of seasonal flowering or a bold texture. Even after blooms fade, they continue to add to the landscape and don't disappear or fade into the background. These plants are used in larger concentration - encompassing 25-40 per cent of the plants and act as companions to the structural plants above. In a woodland garden this might include the Autumn Fern, *Dryopteris erythrosora* 'Brilliance' (see photo). Plants should be of medium "longevity and vigour." They play more of a role as filler plants to spill over and around the structural layer. Some examples include:

- Coreopsis 'Red Satin'
- *Achillea* 'Strawberry Seduction'
- Asters, *Symphyotrichum oblongifolium* 'October Skies'
- Bee Balm *Monarda bradburiana*

Third Layer: This layer includes Ground-Covering Plants. Thomas Rainer calls this layer the "essence of the community." Its function is to fill in the gaps of the seasonal layer, but really this layer is what holds the plant community together. Plants in this group are usually more aggressive and have a spreading behavior. They grow close to the ground and may have a bloom in early spring. As the garden develops, they will fade into the background later in the season but still cover the soil.

Continued



There is no gardening without humility. Nature is constantly sending even its oldest scholars to the bottom of the class for some egregious blunder.

— Alfred Austin



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Plants as Mulch cont'd

They can be selected for specific purposes such as storm-water management (i.e. *pick semi-evergreen species with diverse root systems and plant with a very high concentration to absorb moisture*); erosion control (i.e. *choose evergreen or semi-evergreen with persistent foliage with self-seeding or aggressive root systems*) or soil building (i.e. choose legume species) etc. Some examples of plants in this group include:

- Sedges *Carex spp.*
- Coral bells, *Heuchera spp.*
- Ginger, *Asarum canadense*
- Barren Strawberry, *Waldsteinia fragarioides*



Fourth Layer: This layer includes Filler

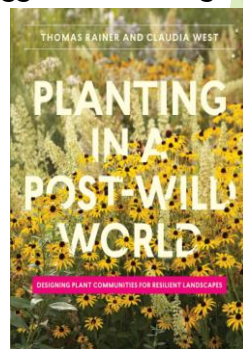
Species that may be needed until the other layers become established. Eventually this layer will entirely disappear as other plants grow and fill in, although it may return if other species fail to thrive. Good plants in this layer are annuals, biennials and *short-lived* perennials. Examples include:

- Cardinal Flower, *Lobelia cardinalis* in a rain garden
- Foxtail Barley, *Hordum jubatum*
- Columbine, *Aquilegia canadensis*

Finally, Thomas Rainer encouraged landscape designers to embrace the stresses and soils of a particular site and resist amending to make it more fertile. He suggested that high fertility could result in decreased diversity. In his objective of low-maintenance landscapes he also emphasized **MANAGEMENT over MAINTENANCE**.

I encourage you to explore these ideas further by reviewing any of the following, all of which are filled with incredible photos of *Designed Plant Communities*. They are a feast for the eyes and also wonderful habitat for a community of biodiversity.

- Book: *Planting in a Post-Wild World*, Thomas Rainer & Claudia West, Timber Press
- Instagram: @phytostudio
- Blog: [Thomas Rainer's Grounded Design](https://thomasrainer.com/blog/)
- Web: [Phytostudio.com](https://phytostudio.com)



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“What’s Growing On?” featuring Halton Master Gardeners

Garden Hacks! Nifty Ideas to Make Your Gardening Easier & More Fun

Have you ever wondered how to keep squirrels from eating your newly planted bulbs? Or how to store that crazy assortment of pots? How about growing potatoes so you can harvest as they grow? Learn this and more in this fun gardening presentation!

- Friday, May 17, 2019 at 2 PM - 3 PM
- [Red Hill Library](#) 695 Queenston Rd, Hamilton
- Presenter: Claudette Sims



Build it and They Will Come-Creating a Butterfly Haven in Your Garden

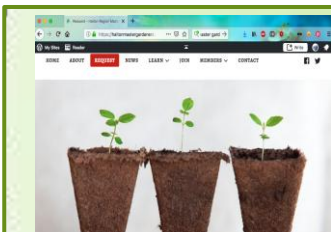
Attracting butterflies is all about having the plants they need and no, that isn't only flowers. Find out which plants are best and how to choose them for your garden.

- Wednesday, June 12, 2019 at 1 PM - 2 PM
- [Red Hill Library](#) 695 Queenston Rd, Hamilton
- Presenter: Claudette Sims

Starting Vegetable Seeds Indoors

Topics to be covered include types of containers, recommended soil, proper lighting, watering practices, planting and transplanting of seeds.

- February 21st at 7:15 p.m.
- Kirkendall Garden Club at [Melrose United Church](#), 86 Homewood Avenue, Hamilton
- Presenter: Lynn Courtney



Did you know you can request a presentation for your Garden Club or group? Fill in the form on the [Request](#) tab of our website and we'll do our best to support you!

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“What’s Growing On” in Our Community



**ROYAL
BOTANICAL
GARDENS**



38th Annual Spring Orchid Show

- February 23 and 24
- Saturday: 12 to 5 p.m.
- Sunday: 10 a.m. to 5 p.m.
- [RBG Centre](#)

The Annual Show showcases the beauty and diversity of orchids. There are also paintings, photographs, exhibits of flower arrangements, and plant sales.



Winter Exhibit: Spiders Alive!

- January 19 to April 14
- 10 a.m. to 5 p.m.
- [RBG Centre](#)



We've invited spiders and their arthropod friends to crawl on over for a visit this winter. Explore amazing adaptations and behaviours in our interactive exhibit, and join us for daily programs for all ages.

The Gardener (trailer)



MOVIE NIGHT at the Burlington Horticultural Society

Join us for popcorn and garden inspiration!

February 13th at 7:15 p.m.
Burlington Seniors' Centre
[2285 New Street](#)



Green Venture Seedy

Saturday

- Saturday, February 2nd, 2019
- 10:00 a.m. to 3:00 p.m.
- St Lawrence Catholic Elementary School, [88 Macaulay Street East](#), Hamilton



Seedy Sunday

- Sunday, February 24, 2019
- 10:30 a.m. to 3:30 p.m.
- Rehearsal Hall at Queen Elizabeth Park Community and Cultural Centre, [2302 Bridge Road](#).
- [Details of workshop speakers and exhibitor list](#)