

April 2017 Newsletter

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



Upcoming

May 19, 2017: Conifers in Your Gardens. Speaker: Suzanne Patry, Whitehouse Nursery and Display Gardens

May 20, 2017: ANNUAL PLANT SALE, 8:30 - 10:00am
Stewart School, Sunset Blvd,
Perth

June 13, 2017: Q & A Master Gardeners, Summer Social

Annual Plant Sale

The PDHS plant sale is a long running event held on the Saturday morning of the May holiday weekend (May 20, 2017 - 8:30 am to 10:00 am) in the gymnasium at Stewart School on Sunset Blvd.

The primary purpose of the sale is to raise funds for the running of the Society.

When dividing your plants this spring, pot up a few for the plant sale, we can't have a sale without plants!

Cutting Back Lungwort

If you cut lungwort (*Pulmonaria* spp. and hybrids) back to the ground, you could damage the emerging flower buds. Early spring is a good time to remove winter-damaged leaves, but rather than cutting it back, pull leaves out carefully by hand

so you can preserve the emerging flower buds.

Adapted from Garden Gate magazine. Submitted by Lynda Haddon.

Damping Off Disease: Down But Not Out

By Larry Hodgson

It's always such a shock! Your seedlings germinate, start to grow and everything seems to be going so well, then one morning (it always seems to happen overnight), you awake to discover seedlings that almost seem to have been mown over. They're lying on their side on the growing mix, with their stem blackened, apparently pinched at the base. But it wasn't a person with nimble fingers who pinched back your plants, it was a disease called damping off.

This disease is not actually a specific disease, but rather can be caused by any number of soil-borne fungi, including *Pythium*, *Rhizoctonia*, *Fusarium*, and *Phytophthora*, all of which present the same symptoms. Damping off spreads rapidly: entire trays can be killed back in just a few hours. Moreover, once the disease is apparent, it's too late to save the fallen seedlings.

Damping-off is not as common as it once was. Ever since gardeners adopted so-called artificial soil mixes back in the 1970s (mostly composed of peat, coir, fine bark, vermiculite, perlite, etc., but no



Lanark Orchid

Renals

Perth & District
Horticultural
Society

P.O. Box 494
Perth, ON, K7H 3G1
www.gardenontario.org

District #2 of the
Ontario Horticultural
Association



President: Robin McIntosh • **Newsletter:** Irene Hofmann

longer containing any “real soil” imported from outdoors), damping-off has become much less common. Artificial soils are sterile, or at least, close to being sterile and so are unlikely to harbor disease spores.

Damping off fungi are very common in outdoor soils. In fact, they’re found pretty much everywhere. If damping off doesn’t seem to occur all that often outdoors, it’s only because it tends to strike earlier than indoors, as a pre-emergence disease. Your seeds just don’t germinate at all and you never know that damping off was the cause.

Until artificial soils came on the market, most people simply dug up soil from their gardens to use in starting seedlings. Not only were such soils dense and heavy, allowing little air circulation and thus creating an excellent environment for fungal development, they also came pre-inoculated with a whole range of disease spores. Sowing seed back then was a race against time: the faster the seeds germinated and started to grow strongly, the less susceptible they were to damping off.

That said, fungal diseases are still readily spread indoors, though not as often directly through soil. Contaminated pots and tools, even watering cans, can spread them as can water splashing from one tray to another. Some diseases have wind-borne spores that can be carried by the slightest breeze, even indoors. So even the use of artificial soils doesn’t prevent damping off entirely... but it sure helps!

Once you see seedlings mowed down by damping off, it’s too late to save them. The best you can do is to quickly treat the remaining seedlings with a fungicide such as chamomile or clove tea in the hopes of slowing the disease’s progress. In the past, almost every home gardener in North America had a bottle of No-Damp at hand, a fungicide developed expressly to controlling damping off, but it is no longer available.

To help prevent damping-off, use only clean pots and tools. Wash any recycled containers well with water and bleach. Also wash your hands well if you’ve just come in from working in your outdoor garden. Consider opening a fresh bag of potting soil for your seedlings: a bag left open for a few months may have been contaminated by air-borne spores. And never use garden soil on seedlings.

So much for preventing contamination, but seedlings also readily outgrow damping-off,

which usually only affects very young seedlings. Applying the best possible growing conditions will help the seedlings get off to a quick start and grow to beyond the stage where they are subject to it. Thus anything that stimulates rapid germination and fast growth also helps prevent the disease. That’s why seedlings should be placed under warm, humid conditions after sowing, in a growing mix that is moist, yet well drained.

Also sow the seeds at the recommended depth (this will vary from one species to another), never too deep, otherwise the seedling will take longer to reach the light... and that gives the fungus more time to get to it.

Freshly sown seeds benefit greatly from being started in a mini-greenhouse, that is, with their tray or pot covered more or less hermetically with some sort of transparent material in order to maintain high humidity. This could be a clear plastic dome, a pane of glass, a plastic bag, a plastic bottle cut in half and placed upside down over the pot, etc.: anything that will let some light in while keeping the humidity high. This, combined with moderate light and warm temperatures around 75°F (24°C), gives ideal conditions for most seedlings to sprout and grow.

As soon as the majority of the seeds have germinated, though, give your seedlings a change in regime. High humidity and high temperatures also encourage fungus growth. So once the seedlings are up and growing, remove their mini-greenhouse and expose them to cooler temperatures, good air circulation, more moderate humidity, say about 50 to 60%, and also stronger light.

Fresh soil, good drainage, cleanliness, decent air circulation, humid air, intense light and moist but not saturated soil, they all add up to good growing conditions that will help keep damping off at bay.

In spite of the recommendations above, some gardeners have repeated problems with damping off: it just seems to come back year after year. If this is your case, here are some extra tips on preventing the disease:

- When sowing seedlings, instead of covering them with potting soil, use milled sphagnum moss (not peat moss). Sphagnum moss is a natural fungicide. Milled sphagnum moss (one brand is appropriately named No Damp Off) is not necessarily easy to find locally. I prepare my own by running dried sphagnum moss through my wife’s coffee grinder.
- You could also try sprinkling the potting mix

with cinnamon powder, another natural fungicide.

- Water or spray your seedlings with cooled chamomile or clove tea. Both have proven antifungal effects.
- Sow “treated seed”, that is, seed coated in fungicide. This technique is not, however, considered acceptable in organic gardening circles.

I repeat that the treatments described will not save seedlings that have already been mowed down by damping off. At best, they simply slow down the disease and stop it from spreading. With damping-off as in so many things, an ounce of prevention really is worth a pound of cure!

PDHS Flower Show for May

Section I: Horticultural Specimen

Class 1 Tulip – 3 stems with leaves attached

Class 2 Flowering Branch – no more than 24” above table

Class 3 Any Iris in Bloom – 1 spike

Class 4 Any peony – 1 stem

Class 5 Any other spring bloom from your garden – named

Class 6 Rhubarb – 3 stalks

Section II: Design

Class 7 A Gift For Mom – an arrangement to celebrate Mothers

Class 8 Movement – a design incorporating a slinky

Class 9 Pik’n Plunk – an arrangement using tulips

Planting Trees Correctly

*Dr. Leonard Perry, Horticulture Professor
Emeritus, University of Vermont*

Yes, there are right and wrong ways to plant a tree. By following correct planting practices, you can ensure trees will avoid a slow decline and possible death from several causes. This is especially important for trees, which can be a large, long-lasting, and worthwhile landscape investment.

Choose the right tree for the right site, not just a tree you like. This means that it will be cold hardy in your area. It also means that it will be adaptable to your soils and site. A sugar maple near pavement and buildings may dry out with leaves turning brown, or show salt injury if near roads. A pine tree will grow poorly on a heavy

clay soil.

Consider trees for their function. Perhaps it is just the beauty of a spring crabapple in bloom, and the fall fruits it produces for birds. Native trees provide the thousands of insects that birds feed upon. Picking fresh fruits from your trees provides incredible taste and nutrition, plus saves money over buying them. Of course trees can be used for windbreaks and summer shade.

Choose a healthy tree. This is one that has a good amount of roots in proportion to the tops. Beware of trees that have been recently dug from the wild with little or no preparation prior to digging. Often you get what you pay for. Obviously check for signs of leaf injury from pests or diseases, or trunk damage from mishandling. Local nurseries with trained professionals are your best bet usually for buying healthy and appropriate trees.

Beware of trees sold in many large national chain stores. These usually have been grown in distant areas, and may not be acclimated to our area. I have found ones at such stores with few roots, the pots containing stones to hold the plants upright. If in doubt, gently pull the plant out of the pot and look at the roots. If non-existent, too few roots, too small pot and root size for the plant top, or the plant is pot-bound, keep looking.

Particularly early in the season, before trees are leafed-out or in bloom, it is hard to tell if they are labelled properly. One time I saw a tree labelled as a crabapple at a chain store, only to see a few weeks later when leaves were out that it instead was a non-hardy peach tree!

If you get home with a balled-and-burlapped tree and, once unwrapped, see girdling roots, either take the tree back or talk with your source. Girdling roots are those that are growing around the base of the trunk and, as they grow, basically end up strangling the tree over time. They are a sign of poor culture in the nursery.

When digging the planting hole, measure the width of the root mass (root ball) and remove sod in an area three to five times the diameter of the root ball. Loosen this soil to a depth of about a foot, such as with a spading fork. Then dig a hole in the center of this area about a foot wider than the root ball.

If planting a potted tree, of course remove the pot. If a fiber pot, you can cut it off with pruners or a knife. If planting a balled-and-burlapped tree, remove any strings holding the burlap, once the plant is in the hole. Remove any wire

with wire cutters. Even though burlap will decompose over time, it won't if it's treated. Best is to remove any burlap, again once the plant is in the hole, cutting it off. If the soil on the outside of the rootball is compacted or roots are crowded, tease them loose with pruners or similar hand tool such as a planting knife. Cut away any roots circling the surface around the trunk.

Planting depth is one of most important factors in planting. Planting a tree too deep can kill it. Figure the depth to plant by pulling any soil away from the trunk. What you are looking for is the root collar or root flare – the bulge just above the root system where the roots begin to branch away from the trunk. This root flare should be just above the soil surface, the base of the root flare at the soil surface. This often may not be the top of the root ball, hence the need to make sure.

Measure from the base of the root ball to the base of the root flare. This is the depth to plant. Don't dig the hole deeper, as some instructions in the past or older books may indicate. Either the tree will be too deep to start or, if you backfill with soil, the tree will settle lower and end up too deep.

Don't mistake the root flare with the graft union on some trees, particularly many fruit trees. This is the point at which two different trees are spliced together, the desired tree on an "understock" to provide traits such as vigor and hardiness. If you suspect a graft union, but aren't sure, again check with your source or a local nursery with trained professionals. A graft union will resemble a swelling or bump on the stem, compared to the flared base of a standard tree trunk. Plant grafted trees with the graft union two- to four-inches above the soil surface.

Absence of a root flare near the soil surface is a sign the structural roots are too deep and need to be planted nearer to the surface. Structural roots are the large woody roots from which all the finer roots branch. Measured about four inches from the trunk, these should be no more than three inches deep. You can find these by probing with a long thin object. Many nursery trees have few structural roots, and these may be much deeper than three inches in the root ball.

Another misconception from the past is that you should amend the backfill soil. This promotes roots staying in the better environment you've created in the planting hole. This in turn promotes girdling roots. The recommendation now is not to amend the backfill soil, choosing the right tree for the right soil instead. Amend

only if the soil is very poor, such as severely disturbed soils with rubble from construction.

If you have removed soil from the trunk base to expose the root flare, this trunk tissue may be more susceptible to cold or sun injury. If such is the case, replace with a mulch but do not mulch too deep. This is another cause of tree injury, and is often referred to as "volcano mulching" from its appearance. If you haven't excavated near the trunk, keep mulch away from it. Only mulch about two inches deep, uniformly around the planting area.

When planting, you may create a shallow basin away from the trunk to hold water, and water well. Keep the tree watered well for the first season if there isn't sufficient rain. It is better to water deeply, less often such as once a week, than just a little every day. If it is difficult to get water to trees, you can use a tree watering bag or "donut" ring that you fill with water, fit around the tree, and they release water slowly. You often see these in commercial landscapes, and can find them for sale at complete garden stores or online.

Other practices to follow for a healthy tree:

- Don't fertilize at planting time.
- Prune only injured branches. Don't paint tree wounds.
- Remove any tree wrap or tape around trunks. This only should be used for protection in transit.
- Don't stake trees unless necessary in very windy areas, or to prevent vandalism. If you do stake, use sturdy stakes and attach the tree with wide strapping or tree roping. Normal twine can cut into the tree bark.

Orchidophilia

April 22 and 23

The Ottawa Orchid Society is pleased to announce that its 36th annual show will be held on April 22 and 23, 2017 at the RA Centre, 2451 Riverside Drive in Ottawa. Orchids are a preferred subject for many photographers. Tripods are welcome on Sunday morning of the show, from 9:00 a.m. to 11:00 a.m.

Show hours are 12-5 p.m. on Saturday and Sunday 9-5 p.m. Admission is \$12 for adults; seniors and children over 12 are \$10.

More information on the show and extra discount coupons can be found on our website at www.ottawaorchidsociety.com.