



Lanark Orchid Renals

## Perth & District Horticultural Society

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District #2 of the  
Ontario Horticultural  
Association

# February 2009 Newsletter

*Just because you've only got houseplants doesn't mean you don't have the gardening spirit - I look upon myself as an indoor gardener.*  
Sara Moss-Wolfe



## Timing is Everything

We know it's tempting, but do not plant your seeds too early. What you don't want are rootbound, overgrown plants, crying out to be liberated from their pots, before the weather is amenable. Find out the date of the last expected spring frost (LFD) in your area, then count backwards. You should start some slow-growing seeds, like onions, eggplants, peppers and perennials, ten weeks before this date. If you want very early lettuce, start the seeds eight weeks ahead, along with ornamentals like begonia, coleus, nicotiana, petunia and salvia. Tomatoes, broccoli and cabbage family seeding should wait until seven weeks before the LFD. And finally, cucumbers, melons and pumpkins should not get started until four or five weeks before the magic date. Don't rush it - young plants will catch up to the old ones once you set them out in the garden, as the big ones tend to suffer from more severe transplant shock.

## Damping Off

By Doug Green

Damping off is a fungal problem of young seedling plants that causes them to rot off at the base of the plant and fall over.

You think you're doing well with your young seedlings and then they start falling over (the tops are often still green when they fall).

What is happening is that the damping off fungus has attacked the stem right above the soil line.

### Causes of Damping Off

Overcrowded seedlings reduce air circulation and allow damp conditions (perfect for fungus to establish) at the base of the seedlings. You've likely sown the seeds too thickly

Poor air circulation - if the seedlings are crowded, this is easy to do. Otherwise, it could be poor air circulation (for example, you cover your seedlings with a clear plastic cover reducing air flow).

In the greenhouses, I had air fans blowing air over top of seedling trays to keep the air moving.

Cold temperatures. If you don't keep those seedling trays warm, you'll have more trouble with damping off.

Combination of the above.

### Stopping Damping Off

The obvious solution is to thin out the seedlings, heat the seedling tray and increase ventilation. Prevention is certainly the easiest way to solve this problem.

But if you have it - what to do about it?

The first is to take care of the above. Thin out the seedlings by removing all dead and dying (you'll see a black sunken area on the stem) seedlings. Remove plastic covers to increase the air flow. Make sure the growing temperatures are in the 65 F range (plus or minus a degree or two). Water with lukewarm water.

### The Simplest Solution

The simplest spray to stop this problem in its tracks is to take several cloves of garlic and mash them up into an inch of water in a saucepan. Simmer to dissolve the oil. Allow the water to cool to lukewarm (so you can comfortably put your hand in the water) but not cold. And pour this mixture over the seedlings - flooding the seedling tray with it.

Garlic is a natural antibacterial and fungicide and it will stop the damping off complex of pathogens in its tracks. Simple, cheap and environmentally effective. But do solve the causes of the problem first.



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## Keep 'em or Toss 'em?

There are two schools of thought about what to do when your indoor bulbs stop blooming.

The first is to simply discard them and toss them out. Given that bulbs are pretty cheap and are easily grown, this is a viable option for many folks. It is particularly true for folks who either do not have gardens or don't have any space in their gardens for more bulbs.

The second is to grow them. Treat them as if you were growing them outdoors. You have to give them full sunlight. Feed them weekly with a regular strength balanced plant food. (Use a liquid blend of something like 15-15-15 or 20-20-20 if you have it otherwise use what you have as long as it has all three nutrients) Fish emulsion works really well if you can put up with a bit of a fishy smell afterwards for a half hour or so.

Grow the leaves – you want to replenish the strength of the bulb so it will develop another flower bud.

There are two ways to handle the bulb project from this point on. You can either grow the bulbs in the pot until the leaves start to turn yellow and dieback. Then you dig up the bulbs and transplant them into the garden. Depending on the kind of bulb you have and the growing conditions, this could take several months. There is no way for a website to tell you the length of time because of all the variables.

The second method involves growing the bulbs in the pot as above but then when all danger of frost is done in your area, carefully removing the bulbs from the pot without disturbing the roots too much and replanting in the ground at the same depth as they were in the pot. A bulb will take this move at this time (unhappily) but it will survive more often than not. Bulbs are quite resilient and you should succeed.

The key to next year's flower though is to get that sunlight and food into the bulb so it can produce the flower bud.

## Indoor Trees

*by Diana Roberts, northerngardener.ca*

It seems that indoor gardening has changed. Rather than having a lot of smaller plants, we are growing a few indoor trees. What happens if we love our smaller plants, but would rather have trees? In some cases you can turn these smaller plants into trees!

Take for example the tree rose. It was once just a regular rose bush now turned tree. What type of plants can become trees? Well, how about that geranium you brought indoors from your garden this fall, or the miniature roses, heliotropes, fuchsias, coleus or lantanas. You can also turn avocados, begonias

and ornamental peppers into trees. If you have some plants that you wouldn't mind losing (let's face it we do sometimes fail) you can try to turn them into trees.

The best time to start training a plant into a tree is in the late winter or early spring. You will need to select a young plant with good tip growth. Be very careful to not harm the tip, as this is where your tree will grow. Remember what you are striving for; a strong trunk with growth on the top. This upper growth may be of any shape, but there will always be a lower trunk.

The next step is to remove all the side shoots from the trunk, though single leaves can be left until the tree is established. Any shoots which sprout on the lower trunk later should also be removed. Once your tree is a foot high, it will have to be put in an eight-inch pot, which will allow for a stake to be placed beside the tree. This stake should be the same height as your future tree. Once the stake is in, the tree can be attached to it with twist ties (be sure they are not tight around the trunk).

Place your tree in appropriate lighting and heat. The tree will need plenty of light to ensure it grows straight. You should also turn the tree a quarter turn every day so it will not lean toward the light. Once your tree has gotten to the desired height, you should pinch back the growing tip and allow the branches to form at the top of the trunk.

Fuchsias are a great plant for training into a tree. Years ago, I had a fuchsia tree which was the most beautiful tree I had ever seen. It stood about four feet high and bloomed constantly. It thrived for a couple of years until it was accidentally broke in half, which also broke my heart. When starting your tree fuchsia, follow the directions above, then once you have allowed side branches to form, allow them four leaves each, then pinch out each center tip. Continue doing this until the tree gets to the size and shape you would like.

While training your plants into house trees, you may find your plant starts to bloom. Don't worry about this, just allow them to bloom, then pinch off the spent blooms and continue on with the process. You may need to look for another centre at this point, though not always.

If you would like to train a miniature rose into a tree rose, you will have to cut out all but one cane, which will be your trunk. Miniature roses are grafted onto hardy root stock, so be sure that your trunk is coming from the upper part of the plant, not the root stock. Allow your 'trunk' to grow upright, while pinching out all side growth. Once your trunk is about twenty inches tall, pinch out the centre growth bud and allow branches to grow at the top of the trunk.

Your miniature rose tree will need to rest in a light, 50-degree F room from November until February. Keep it watered lightly and often enough to keep the trunk and branches plump. In February, you can bring it into a warm room and fertilize and water it normally. Keep your rose tree pruned to a nice shape and watch carefully for any insect pests.

If you have your heart set on a geranium tree, any upright growing geranium can be grown into a tree. Start it just as outlined above then prune it carefully and you may have your tree up to ten years. If you are not sure if you can turn a plant you have into a tree, just give it a try and see what happens. Some plants have specific requirements over the winter, such as roses, so if you treat them the way you would a non-tree specimen, you should have good luck.

## Soil 101

You've read it a hundred times, in plant books, catalogs, websites and on plant tags: such-and-such perennial, "prefers well-drained soil containing sufficient organic matter."

As if that's what you're dealing with the first time you thrust a shovel into the ground. You may discover a sandy mix with only faint traces of organic content. Or dense clods of clay that after a hard rain could be lumped on a potter's wheel and thrown into a lovely set of soup bowls. Maybe your shovel proves inadequate for the task, but dynamite would do, as you learn that the "soil" you intend to garden is a gravelly, concrete-like hardpan containing more fossils than minerals.

When it comes to growing trees, shrubs, perennials and annuals, success begins with soil. So let's look briefly at basic soil science, then build on it to learn ways to turn devilish dirt into supreme soil.

Soil serves three main functions in plant growth. First, it serves as the anchor for roots so that plants grow upright. Second, soil holds water and air around the roots. Third, soil contains the essential nutrients (either naturally or via fertilizers) that plants need to enable healthy growth.

Some definitions are in order:

**LOAM:** A rich soil composed of clay, sand, and organic matter.

**CLAY:** Soil composed of mineral particles of microscopic size.

**MINERALS:** Inorganic substances occurring naturally in the earth that are neither vegetable nor animal. Coal is a mineral. Sand is made of minerals.

**SAND:** Loose particles of disintegrated rock between 1/16 mm to 2 mm in diameter.

**ORGANIC MATTER:** Decomposed plant material; also, the live microorganisms (bacteria, fungi, insects)

found in soils.

**MINERAL SOIL:** Soils with more than 80% mineral material. The remainder is organic material.

**SOIL STRUCTURE:** The shape the soil takes based on how individual soil granules clump or bind together.

**BLACK DIRT:** Mineral soil.

That's just enough to make you dangerous. These terms are important to know, as you will find them used in books and articles (such as the rest of this one) about soil, and in the report you receive if submitting your soil for a university soil test (highly recommended).

### Soil Fixes

Start by digging a hole eighteen to twenty inches deep in an area you wish to plant. What have you, based on the information above? If you are lucky enough to have around ten inches of easy-to-dig, black topsoil, then the start of a layer of loose clay or sandy loam, never sell your house, because what you have is, "well drained soil containing sufficient organic matter." But quite often that's not the case. Here's how to fix your soil, depending on what you find:

**Clay Soils** – Though clay can occur naturally as topsoil, a better bet is that the homebuilder scraped off the loamy topsoil and sold it, then left you the clay layer to deal with.

**THE PROBLEM:** Clay soils lack organic matter and have a soil structure so dense that water has a tough time penetrating, though when it does it remains in excess, leaving no pockets to hold air. Plants that die in clay don't drown so much as suffocate.

**THE SOLUTION:** Add copious amount of organic matter such as compost or peat moss. Spread a six-inch layer atop the clay and spade it in, or till it down as deeply as possible with a power tiller. Each year in late fall, top-dress the bed with an inch or so of additional organic material. Never add sand to clay soils. Adding gypsum (a mineral) will also help loosen clay. When moving perennials, fill any holes with compost. Your clay soil will begin to loosen, the level of microorganisms essential for soil and plant health will skyrocket (they feed on organic matter), and earthworms, also your partner in creating healthy, "live" soil, will return.

**Sandy Soils** – These occur naturally, the luck of the glacial draw.

**THE PROBLEM:** Sandy soils lack organic matter and have a soil structure so loose that water and nutrients flow quickly through, not giving roots much time to absorb them.

**THE SOLUTION:** With the exception of adding gypsum, the solution is the same as for clay soils. You need to till in organic matter so that the soil begins to retain moisture, the microbe activity increases, and

nutrients have more material to bond with. Or order in some mineral soil and till in half that, and half organic material. The addition of mineral soil helps add stability.

**Hardpan Soils** — For the sake of brevity, hardpan is a combination of clay, sand, gravel, and perhaps remnants of the concrete, plaster, stucco, and roofing nails left over from your home's construction. The solution? You guessed it: copious amounts of organic matter.

Here's an additional solution for all the above: Raise the beds. Add the layer of organic material, till it in, then ring the area with a twelve- to sixteen-inch-high border material such as concrete wall block, if you can put up with the vapid look, or wallstone or fieldstones (the latter two will look best). Fill the bed with blended garden soil available from nurseries and landscape supply yards, thus creating about a twenty-inch layer of good gardening soil. Yes, you had to write a check, but it sure is easy.

**Peaty Soils** — In rare cases, you may have naturally occurring "peaty loam," soil that stays wet due to too HIGH an organic content. The solution here is to add coarse sand, to aid drainage.

Final note: Power tillers greatly disrupt soil structure. Only till soil once, to introduce the organic matter, then leave power tillers out of the equation. Good soil structure establishes slowly, greatly aided by the flourishing microorganisms. Don't go back each year, or every three years, and goof it all up by hitting it again with a power tiller. Those little high-strung, high-RPM mini-tillers that spin their little razor tines a zillion times a minute are the kiss of death. People buy those and then think they are doing their garden a favour by running them through their flowerbeds and vegetable patches every spring, when all they are doing is ripping the poor soil into silt.

Annually top-dressing your beds with a one-inch layer of organic material is the best way to keep healthy soil healthy. If you use compost that you make, or order a load in, and spread it over all the places you grow perennials and annuals, you'll probably find you don't need to fertilize. Ever.

*therenegadegardener.com*

*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*

## Treasurer's Report

November 1 to November 30, 2008  
Balance October 31, 2008 **\$5,404.33**

### Receipts:

Membership	\$ 10.00	
Bank interest	.11	
Miscellaneous	<u>15.75</u>	
	\$25.86	<b>\$25.86</b>

### Expenses:

Youth Activities	\$144.91	
Speaker Fees	75.00	
Social	4.46	
Meeting Expenses	112.29	
Library	4.15	
Office Supplies	25.98	
Fees Dues/Ins.	520.80	
Donations	<u>125.00</u>	
	\$1,012.59	<b>\$1,012.59</b>

Balance November 30, 2008 **\$4,417.60**

Bank Balance November 30, 2008	<b>\$2,068.01</b>
Reserve Fund	<u>2,500.00</u>
	<b>\$4,568.01</b>

Outstanding cheques	\$( 125.00)
	( 16.80)
	( 4.15)
	<u>( 4.46)</u>
	<b>\$4,417.60</b>

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December 1 to December 31, 2008  
Balance December 31, 2008 **\$4,417.60**

### Receipts:

Bank interest	.08	
Membership	<u>240.00</u>	
	\$240.08	<b>\$240.08</b>

### Expenses:

Community Projects	\$ 43.00	
Speaker Fees	75.00	
Social	<u>149.00</u>	
	\$267.00	<b>\$267.00</b>

Balance December 31, 2008 **\$4,390.68**

Bank Balance December 31, 2008	<b>\$1,890.68</b>
Reserve Fund	<u>2,500.00</u>
	<b>\$4,390.68</b>