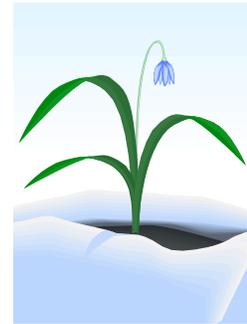


Roots & Shoots



Master Gardener
Society of
Oakland County, Inc.



February – March 2013



February 12, 2013 @ 6:30pm
MGSOC General Society Meeting & Location
Beautiful Savior Lutheran Church
5631 North Adams Rd, Bloomfield Hills, MI 48304

Speaker : Dale White

Education: “Updates on Using Organic Fertilizers and Amendments”

A business meeting will take place, prior to the start of our Educational Program.



March 12, 2013 @ 6:30pm
MGSOC General Society Meeting & Location
Beautiful Savior Lutheran Church
5631 North Adams Rd, Bloomfield Hills, MI 48304

Speaker : Scott Bates

Education: “Pond Construction and Setting Up Container Water Gardens”

A business meeting will take place, prior to the start of our Educational Program.



April 23, 2013 @ 6:30pm
MGSOC General Society Meeting & Location
Telly's Greenhouse
3301 John R Rd., Troy, MI 48083

Speaker : George Papadelis

Education: “Ornamental Grasses”

A business meeting will take place, prior to the start of our Educational Program.



Carol's Corner

The Winter 2013 Master Gardener Training Class started January 24th. We have a whopping 77 participants eager to learn and become Master Gardener Volunteers! This is a Thursday evening class (6:00pm-10:00pm) which is held in a conference room in the New Executive Office Building located at 2100 Pontiac Lake Road, Building # 41 West. The Executive Office Building is just east of the Oakland Farmers Market.

There should be plenty of seats available in the classroom if you'd like to sit in on any given topic. If you sit in on a class, you can submit 2 (full credit) educational hours on your volunteer reports.

You might want to call Linda the week you plan on attending any class to make sure the schedule hasn't been revised. She can be reached at 248-858-0887 or smithlin@oakgov.com.

DATE	SUBJECT
January 24	Introduction/Plant Science
January 31	Soils
February 7	Indoor Plants
February 14	Vegetables
February 21	Lawns
February 28	Flowers
March 7	Household & Nuisance Pests
March 14	Small Fruit
March 21	Tree Fruit
March 28	IPM
April 4	Woody Ornamentals
April 11	Diagnostics
April 18	Water Quality/Volunteering
April 25	Snow Day

The new **Volunteer Management System** will be up and running shortly. You should get an email message through the system letting you know it is working and ready for you to input your hours if you choose to recertify for 2013. I do hope that the newly instituted recertification fee does not make you so mad that you choose to no longer participate in the Master Gardener Program and then by default, the Master Gardener Society of Oakland County, Inc. As I've mentioned before, like it or not, in order to continue to have the Michigan Master Gardener Volunteer Program in this state there must be fees to help pay for the system.

I want to thank all of you for your patience as this transition is made.

Now is the time to rest up because the gardening and volunteering season is right around the corner!

The Year at a Glance—MGSOC Meetings/Events for 2013

February 12	Dale White	Updates on Using Organic Fertilizers and Amendments	
March 12	Scott Bates	Pond Construction and Setting Up Container Water Gardens	
March 18		MGSOC Board Meeting	7PM @ Extension ofc.
April 20	MGSOC Conference	Elements of Design for Sustainable Landscapes	MSU Conference Center, Troy
April 23	George Papadelis	Ornamental Grasses	← At Telly's Greenhouse in Troy
May 14	Todd Renshaw	The Art of Growing Bonsai	
May 20		MGSOC Board Meeting	7PM @ Extension ofc.
June 11	Bob Williams	Practical Phragmites Control	
July 9	Janet Macunovich	Design Tips for Garden Art	
August 13	Alison MacKinder	Annuals and Combining Them With Perennials	
August 19		MGSOC Board Meeting	7PM @ Extension ofc.
September 10	Mike Sautter	Honeybees: What's All the Buzz About?	
October 8	Cathy and Frank Genovese	Christmas Tree and Spruce Declines	
October 21		MGSOC Board Meeting	7PM @ Extension ofc.
November 12	Trevor Newman	Edible Landscaping – From Consumers to Producers	

Insects and Diseases of Trees and Shrubs: Having Fun with Bugs and Fungi



Gary Eichen of Mike's Tree Surgeons gave our January talk on insects and diseases of trees. He is an accredited trainer on this topic for the Michigan Department of Agriculture.

Trees have varying defense mechanisms to protect themselves from diseases and bugs, and the general health, age and environmental conditions of the tree are important factors. Dutch elm disease invades the water transporting vessels of the tree, and in defense, the tree shuts down the vessels resulting in the death of the tree. To defend itself against heart rot, the tree sends enzymes to the outer edges of the decay to block its spread. When the red turpentine beetle attacks, the tree responds to the drilling by sending out pitch to block the entry points and suffocate the insects. Unfortunately, this defense also saps (couldn't help the pun) the tree's strength. All defense mechanisms require great expenditures of energy.

Different species have defense mechanisms of varying strengths. In general, the urban forest is weak as they are ornamental "created" trees. The root systems of grafted trees often just don't work right. "Primary" insects attack all trees, but most insects and pathogens attack weak trees.

Leaf spot diseases are caused by hundreds of different fungi, and once they get going, they are impossible to stop. Weather conditions conducive to black spot are 55 degrees and 3 days of rain. Although leaf spot diseases do not kill trees, they do contribute to their decline.

Apple scab attacks crabapples, although some of the newer cultivars are often resistant. There is a very long infection period between mid-April and the end of June, and the leaves often drop to the ground leaving the fungi in the ground to attack the next year. If the leaves drop, the branches get scorched and overheated by the sun leading to winter bark split, an invitation to cankers that block the vascular system.

Tip blight infects Austrian, Scotch, red and some mugho pines by stunting the new growth. The organism overwinters on pine cones and systemically infects the trees in April. Pine wilt, carried by the pine sawyer beetle, attacks Scotch pines and leads to death in 3 weeks. People often mistake normal needle drop for a fatal disease, but as long as this year's and last year's growth are green, there is nothing to worry about.

Patchy spots with damage to the vein characterize bacterial leaf scorch. Leaf scorch due to drought has a clear delineation between the damaged and green areas, and the vein is not affected. Fire blight is a bacterial disease spread by bees and often infects ornamental pears and crabapples. Injection works well in the early stage.

In recent years we have all seen tar spot on maple trees, but it is harmless though unsightly. Anthracnose is a devastating disease to oaks in the urban forest. Oak trees form witch's brooms after repetitive years of infestation. Fertilizing the tree with mycorrhizae is helpful.

Scale insects infest many tree species, and most are species-specific. They suck phloem and excrete sticky poop that grows black mold. They are controlled in nature by parasitic wasps that are killed by the malathion used in mosquito spraying. Control of scale insects is aimed at young insects just after hatching.

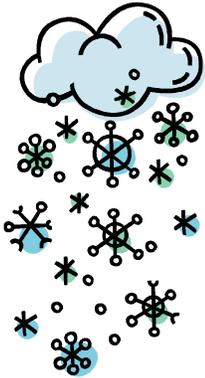
Root rot kills more plants than anything else. Trees need good soil drainage and aeration so their roots are not sitting in water. Root rot morphs into bleeding canker that is almost always fatal.

After this talk, I felt as if I had been working in a tree emergency room all evening! The biggest take-home lesson was to plant healthy trees right and give them optimum conditions so we won't be calling the tree "surgeon."

—Submitted by Jean Gramlich



Notes From Nutcase Nursery



So the winter began with a December reminiscent of three years ago when we started the season with three back-to-back snowpilers before the new year arrived. This year the triplets hit a little later without really over-inconveniencing us and simultaneously blessing us with a proper white Christmas, except for the hours between 5 and 11:00 p.m. the Eve of.

Snowfall is the perfect reason to enjoy that seasonal pastime known as the browsing of the catalogs. It marks the beginning of the gardening season because dog-earing all those pages starts aggravating your carpal tunnel area early.

The January thaw ran for a couple of days instead of a couple of hours like in 2011, which allowed all of the snow to melt and expose multitudinous sins of omission: the chores unaccomplished before winter.

There was very little that could be done, so I didn't. Since the soil hadn't frozen and most of the melt was absorbed by a very thirsty earth, except for a few bucketsful that I dumped into the compost bins it was all good. Mother earth needed it much more than me. It's usually March before I run out of rainwater and have to go after snow melt for the houseplants. The hazards came when the snow disappeared and the temps dropped below the teens.

The days are getting longer and it's probably a little too late to fight for the health of plants that summered outside. By now if you were going to get an inside "bug bloom" it should have hit. Sorry that I didn't bring this up sooner. If the pests are there now, they were there three months ago. They might have been eggs, but they were there.

Over the years, the most common stealth pest problem I've run into is the spider mite. 🕸️ By the time I notice the webs there isn't usually a chance for a fair fight. 🕸️🕸️ Years ago, when I would try to save impatiens and such through the winter, I wasted money on sprays which killed the infidels as well as the plants. Impatiens leaves were not meant to withstand the chemicals in even "approved" sprays so I switched to washing them with soapy water. Like any other treatment except systemics you need to slightly modify the instructions that often appear on the shampoo bottles. Instead of "lather, rinse, repeat," (which, incidentally, is usually unnecessary and tends to dry out your hair and scalp - - the manufacturers just want you to use more) you will need to "lather, rinse and repeat about 7 to 10 days later" and probably repeat again after that. Here, instead of a dishwasher, we have a Dishmaster®, which is a very neat system that has a tank for a soap solution and a spray handle that I use to shower the plants. The larger plants have to shower in the bathroom like the rest of us.

One of my Rodale guides suggests spraying cold water on the leaves for treating spider mites, or trying a slurry of wheat flour, buttermilk, and water which sounds a little too messy for me. Very often we shoot insects off the outside flora with a blast from the hose so the cold water spray system has a lot of merit. What works on the aphids can work on the mites.

Spider mites are in the Arachnid family, the same family as spiders and came in compliments of the elephant ears (Colocasia) I love to grow in pots outside. They do for the shade what castor beans do for

the sun: provide a little tropical paradise flavor. The plants were so beautiful I couldn't bear to have them frosted. But who has room for three big pots of elephant ears which were growing even taller with the lower light levels? Ha! Master Gardeners make room. The Dingo doesn't seem to mind as she sits in the living room everyday looking out the window with fifty plants. I really think she considers it the next best thing to being out except for when the kitties walk past.

Spider mites come in a couple of colors. They can be reddish-brown or of the pale variety. They are extremely tiny and you will notice their webs way before you make out their little bodies. The first time I met them I was puzzled at the webbing because I had never had the "normal" house spiders decorate like that. As I stared at the webs I noticed little white specks on them. Staring a little longer, I noticed that the little flecks were mobile and that did it. The battle was on.

Spider mites produce many, many generations in a matter of days and they lay their eggs at the base of the plant and on buds and leaves. Adults hibernate in debris and also under the bark. They eat everything – roots, buds, fruit, leaves. Usually you might notice leaves taking on a creamy, mottled cast. On pothos, they turned the leaves yellow and brown, but the ones that were attacked were just potted from cuttings so they were stressed and very vulnerable. This kind of bad behavior renders the leaves impossible to save. Besides, it didn't seem like any of the pests were asleep. I think they were committing debauchery amidst the greenery and fornicating instead of hibernating. I cut all of the leaves and stems down and disposed of them before I sprayed, washed the plant thoroughly with soap, and cleaned out as much of the debris as possible. It was like they were being inducted into the prison system. They obviously enjoyed their showers and in only a couple of days new leaves were rushing out from the stumps of the old.

By the way, a third pothos less than eighteen inches away was untouched because, as a much older sibling, it had no issues. I would really recommend that if you don't have an emotional attachment to a plant that has been infested, you should probably bundle up on a really cold day and take it outside for a nice, brisk trip to oblivion.

On the way to more quality control, looking for other victims, I noticed that one of the holiday cacti was sporting a few webs at its very top. It got washed as well and I checked the others for signs of the pestilent. Of course, then I got distracted by the blooms and decided that some of them clashed with their neighbors and had to be rearranged.

Just can't understand why I would have a chore list with leftovers...

The dowager queens, Auntie Ann, who is over 80 years old, and Halina who is at least 50, are both in the red shades but Ann is definitely pinkish and Halina is more fire engine red. (None of the others have names because I purchased them and their history begins with me. The queens were gifts.) Both are very large and heavy and their owners were getting too old to care for them. I started puppies from them over the years thinking that maybe other relatives would like something from their mothers' in a smaller version but I got no takers. So the collection has grown in more ways than one. There are several in shades of red, pink and orange, but I have to admit that my favorites are a yellow and a very pale shell pink that starts its blooms white.

I know that we gardeners get excited when we think something should be doing something other than what it's currently doing, as in something like blooming but I really don't care whether they're Thanksgiving cacti, or Christmas, or Easter. They bloom when they feel like it. They live in big, southwest-facing picture window and only one side blooms at a time. When the first side is almost done, I rotate the plant 180 degrees. Then the other side starts to bud and bloom and then it's usually over. In a south-facing window, Auntie Ann used to be in flower almost the year around.

Holiday cacti like to be chilled and tanned at appropriate times. Technically all of the houseplants should be rotated a quarter turn every week but the queens only fit in their spaces a certain way and they're the ones who taught me how they like to do things, not unlike the Dingo. And they are much quieter and far less persistent. One thing they don't like is having their blooms pulled off. They will detach when the plant chooses and trying to remove an unspent blossom is like pulling their hair.

A friend of mine used to summer her cacti out on a covered porch with a western exposure. She would bring them in before they froze to death and they flowered like maniacs. One year, unfortunately, they were forgotten and all passed on to the great compost bin in the sky. I don't trust myself to take care of mine outside. Only the plants that have to be redone yearly get to party in the summer and the safest place for them is the greenhouse since I'm in there every day.

In case you need to dispose of a cactus quickly, the best way is to repot it and then overwater it. It's a double whammy. Just repotting is injurious enough if done incorrectly. Cacti roots are notoriously small and shallow unless the cactus has been tricked. When I say "tricked" I mean planted in a pot but sitting in water. I have found some incredibly long roots growing right out of the bottom of the pots when living in those conditions and I have never found them on plants grown in a more droughty condition. Auntie Ann was repotted once and I almost lost her. It was that episode that prompted me to propagate them all just in case.

I really need to be more careful because when I am doing the plant room everything gets moved, the shelves and windows get washed and segments happen to detach from the mother plants. I wind up sticking them in another plant's pot that just happen to have some bare soil. As I made my rounds recently, I noticed that there were quite a few segments growing in rental properties. Here comes another chore. I can't leave them like that forever. They will never bloom and many are co-habiting with plants that are living in conditions not recommended for them, be they *Rhipsalidopsis*, *Schlumbergera* or *Zygocactus*, or any combination of the three (Easter, Christmas, or Thanksgiving).

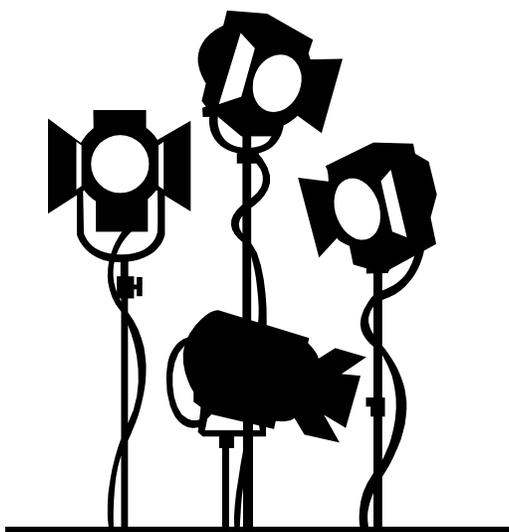
For identification purposes, the Christmas cactus has segments that are more rounded and the Thanksgiving cactus is the one whose segments grow little horns at the tops. The Easter version is similar to both and produces more small spines where the segments attach. I think we should just give up, call them all *Cacti* holidayii and be done with it. As long as they're growing somewhere that allows for cool night temps, 55 to 60 degrees F, some direct sun, and a watering habit that allows the plant to be thoroughly hydrated and then become moderately dry, they will bloom when they feel like it. As we approach the autumnal equinox the angle of the sun gets lower and the temperature drops, both of which trigger one side of the queens to bud. They will never get light all the way around as long as they live here and they've agreed to that. Besides, this way I get to enjoy the flowers much longer. Serendipity.

Most plants can tell you when they need attention if you just pay attention. Janet Macunovich wanted to title one of her books “You Never Really Know a Plant Until You Kill It At Least Three Times,” but the publisher thought that was too long. But it’s true. The more you know them, the better off all concerned are. A holiday cactus will tell you it’s thirsty by shriveling and changing its shade of green. Other plants do the same. If you have had a plant for a long time you know what I’m talking about. It’s plant whispering.

But I really hadn’t meant to take up so much space on houseplants. I originally wanted to write about what I call gift plants like Amaryllis, Hydrangeas, Kalanchoe and Poinsettias, but it’s seed starting season and this is the issue it belongs in. (Find past February-March issues at www.mgsoc.org.)

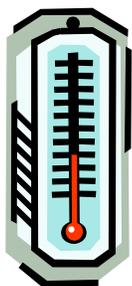
By now you are armed with catalogs, the internet, dreams and wishes. Bordine’s will likely have their February seed sale and you need to be ready. Take an inventory, write down what you need and what you want. Compare prices. Last year I found Burpee seeds taking over at every store that used to carry various brands. If you remember last year’s NfNN February – March edition, Burpee told me they don’t have room to include the resistance characteristics of their tomatoes. This is absolutely necessary information for the home vegetable gardener. And tomatoes are the most popular vegetable (actually fruit) grown by home gardeners so we all need some help in picking a good variety. If you want excellent assistance in deciphering the little trail of letters that follow the plant name, check out Totally Tomatoes.

Make sure you have containers of various types and sizes. Recycling take-out containers works well for seed starting but make sure you allow for drainage and appropriate depth. Don’t try really shallow containers because they don’t work well. Some of the best performing are at least 4 inches deep like the ones that spinach comes in at some stores, a nice sturdy plastic with a well-fitting lid. The best thing I’ve found for seed starting are the APS units from Gardeners Supply. They used to be a lot cheaper but they are the reason that I get a great deal of success with my sprouting. Some of mine have been in service for six years. They are getting a little ratty but if you are careful with them you will get several seasons of usage. Glue and duct tape keep things together.



If you want to start seeds you need light more than anything. Windowsills don’t cut it. Shops lights in lieu of a grow table is your best bet. You need to have a setup that allows for you to easily raise and lower the lights because the light source needs to start out very close to the surface of the soil in your containers. You may also need bottom heat for seeds that need some warmth to start doing their thing such as tomatoes, peppers, and eggplant. Before I started using the APS units I used heating pads. I also count on Styrofoam packing materials to keep the temperature moderated like the Styrofoam in the APS units. I can stack pieces of it and remove some layers as the seedlings grow. It saves me from having to raise and lower the lamps as it accommodates the various heights of the new babies. It kills Himself when I save this kind of stuff because he sees no value in recycling

the recycling. I have to hide stuff to save it. What appears to be an empty cheese shaker to him is my best tool for sowing carrots and radishes.



Something you might also want to pay attention to is how cool your growing space gets at night. Many of us use setback thermostats that allow for keeping the castle cooler while we snuggle under three or more blankets during sleepy time. Chill at night, especially after being under lights for 12 to 18 hours, can set back or even damp off the healthiest of puppy plants. I used to let it go down to 64 at night but it's 70 for the plants now. Seedlings also need to be fanned gently which strengthens their stems. To make up for the extra gas and electricity I've decided I should quit doing the laundry. Maybe the cooking too.

Seed starting is a fantastic way to teach children about miracles.



Some Information You Should Know

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**Currently Available Opportunities: Communications,
Education, Project Support, Volunteer Activities**

Mission Statement

It is the Master Gardener Society of Oakland County's Mission to assist, enable, and encourage its members to use their horticultural knowledge and experience to help the people of their communities, enrich their lives through gardening and good gardening practices.

Michigan State University Extension- Oakland County
“Bringing Knowledge to Life”

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November 15 for December/January issue

To help reduce mailing expenses, if you have Internet access we encourage you to read Roots & Shoots online at the Master Gardener Society website www.mgsoc.org.

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