What's Coming Up:

Janet Macunovich answers your growing concerns Issue #50, July 18, 2009

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I never met a magnolia I didn't love, and very few that didn't have at least a bit of magnolia scale. It's a pest established trees can cope with but ought to be controlled on a sapling. Read about it on pages 1-2

The flowers of this hardy (zone 6) *Magnolia macrophylla* are fragrant, open in July and are well over a foot across. (That's my elbow, in the background!) Before you rush to buy one, look again and measure the leaf against that big flower. When a tree of this species I knew in Livonia, Michigan shed its foliage in fall, the owners didn't rake so much as pick up sheets of newsprint.

Photo ©2009 Steven Nikkila



New little magnolia faces trouble on a large scale

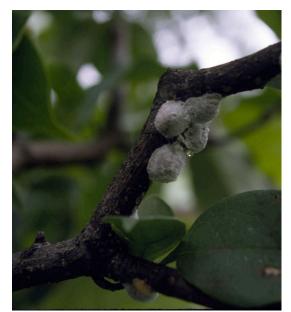
"We have a 2 yr old *Magnolia* tree," writes Rhonda. "Last year (summer) it was doing poorly and I noticed that it had scale. I was told to wait until fall and treat it with an insecticide oil, which I did. I also pruned all the dead wood (there was quite a bit) off of it. It came back quite well this spring; however the budding and flowering seemed delayed a bit even though we got a lot of buds and flowers. By June I could see the scale was back. Can I treat it effectively now, or do I have to wait until the bugs emerge in the fall? Should I remove the scale physically? Is there anything else to do now?"

There are things you can do now, Rhonda, and also in mid- to late August, that most effective time to control magnolia scale*. That's when the crawlers of the new generation have finished emerging from the eggs. Lacking any real thickness to their shells, they are then most vulnerable -- most easily killed.

This timing sets magnolia scale apart from most other tree scales, which are in the most vulnerable crawler stage in spring at about the time the host tree breaks bud and begins growth

for the year. An oil applied just before a magnolia's budbreak may kill some of its pests -- oil works by plugging an insect's breathing pores and suffocating it -- but is unlikely to be 100% effective against nearly-grown scales.

To help your tree before August crawler time, manually remove the adult scales. You can do



that at any time. Although the magnolia scale's springtime brown shell is good protection against most chemical insecticides and the waxy white coating that develops by midsummer gives it even more resistance, no shell can stand up to being scraped off with a rubber spatula or similar tool. If physical injury during the scraping doesn't kill the insect, predators in that very alien territory where it lands -- the ground beneath the tree -- will do them in.

Magnolia scale (the gray bumps on these twigs) is probably the biggest insect of its kind you and I will ever see, This picture, taken in July, captures mature female scales in full armor and ready to begin laying eggs. Photo ©2009 Steven Nikkila

Manual control won't beat a heavy infestation unless a tree is so small and you're so thorough that you can be certain to remove every scale. Miss any and they'll live to produce **crawlers in August. Controlling those**

youngsters is an important step in helping a young or weak tree get back on track.

The new crawlers will find spots on one- and two year old twigs, suck sap until season's end and spend winter where they have been feeding. Don;t let them settle. End the scales' young lives by smothering them with a summer weight horticultural oil (Volck, Sunspray, Neem oil, etc.) or a contact insecticide. Spray thoroughly to coat all twigs. After a week, look closely at some twigs with a hand lens. See any crawlers? They may have emerged late or been missed by your spray. There's still time for follow up spray. Smother them before they can do much harm.

You can also **introduce natural predators** which will search and destroy surviving scale. Ladybugs can be pretty effective in scale control if you introduce or attract them and everything is right to keep a god sized mob of them engaged. If you applied oil wait until that film has dissipated before releasing predators. **Wait at least a week after spraying other pesticides**. Predator insects are often far more susceptible to insecticides than their prey.

After this infestation is controlled, you can switch to a simple means of control many people have found effective to **keep scale from resurging**. They interrupt scale build ups by using a **forceful stream of plain water to clean the limbs** from time to time during the summer.

Magnolia scale is pretty common in our landscapes, and hitches rides between trees on birds' feet so most trees are exposed to it on a regular basis. Bigger, well established trees in magnolia-friendly sites are usually healthy enough to keep scale populations from exploding -- it's likely they produce natural insecticides in their sap. They also have the energy reserves that let them grow vigorously even though some scales are always in residence.

*Copy and paste this URL to your browser for more on magnolia scale: http://woodypests.cas.psu.edu/factsheets/InsectFactSheets/html/Magnolia_Scale.html

New tree care: Play mother hen for a year for every inch of trunk diameter

New trees can seem sturdy and independent as soon as they're in the ground, but they have a harder go of it than you may think. The bigger the tree at planting time, the longer the period it will need your help.

A transplanted tree **needs time to grow roots** capable of supplying all the water needed by its crown without the daily watering it was receiving in the nursery. Every year until its root mass comes into balance with and can finally spread beyond its top, the tree burns some of its starchy energy reserves to get by. **If it exhausts its reserves** the tree **begins to operate at a loss**, allowing its crown to die back that year or the following spring. Then, root-leaf equilibrium is even tougher to reach because there are fewer leaves to fuel the root growth. Any additional problem that strikes an exhausted tree can be a critical blow. Problems that kill struggling trees range from tough winter to drought, squirrel gnaws, sap sucking bugs and leaf chewers. During establishment even insects that trees of that species normally shrug off as a nuisance can spell big trouble.

However, when all goes well, a tree can strike a root-leaf balance in one year if it had a one inch diameter trunk at planting time. For every inch of trunk diameter, the tree needs at least one trouble-free year in a good site. Every year of neglect or decline is a lost year that can't be counted toward establishment.

So make a promise to fend for your new tree for at least a year for each inch of its planting-time trunk diameter. During that time **check the tree's soil moisture regularly** and water to keep its root ball moist but never soggy. Give the whole plant a good look and a hand shake every couple of weeks so you'll **notice things like uneven growth**, cessation of growth, discolored leaves or insect damage. **Nip such problems in the bud**. Be better than your word if you must -- keep on treating a tree as new **until its growth rate matches the best year it had at the nursery** and it leafs out the following spring without delay or death of branches or buds.



You can read a branch to measure and compare current and past growth rates and determine when problems began or recovery begins. Look for telltales such as differences between older and younger bark color or thickness to see where growth stopped one year and resumed the next. Measure the rate in inches between one year's stopping point and the next. Left: I used white paint to mark every other year's growth on this maple branch. Note that the tip, far left in the ophoto, grew barley two inches Photo©2009 Steven Nikkila

This branch grew six inches last year but only an inch this year. That slow-down a sign that something has gone very wrong, but we also know that conditions have not recently been right since the tree in its best year did not even reach its species norm of 12 to 18 inches per year. You'll find normal growth rates in online data bases or a tree reference book such as *Manual of Woody Landscape Plants* by Michael Dirr. Find the growth rate listed for that tree species. If not given in inches it may be listed as fast (over 18 inches per year), medium (12 to 18") or slow (under 12" per year). Photo ©2009 Steven Nikkila



Asian multi-color lady beetle: Pest from one angle, hero from another.

One year not long ago, the leading edge of **an Asian lady beetle invasion** moved north into my region and proceeded to bedevil unlucky people whose homes they chose for winter resting spots. In **that same year**, my husband and I just happened to have reached the "zero year" on **two big magnolias we'd been watching** for nearly ten years.

These trees had been badly infested with scale for all of that time, had received no help from the property owner and had been additionally stressed by two years of drought. The bark on both was uniformly black from a heavy coating of scale excrement on which an opportunistic sooty mold had grown. The leaves were blackened, too and so were operating at less than full energy. Like dirty windows they were unable to admit sufficient light. The trees had gradually declined in each of the previous years, with fewer inches of new growth each year and more branch loss. In the year in question the decline had become precipitous, with new shoots making less than two inches of growth in the year, leaves stunted, and some branches that had

budded out dying back during the season. Callously, we had placed bets whether either of the two would bring even 50% of their buds through winter or survive the next year.

The next spring, we were amazed to see new growth emerge and elongate without any of the distortion and stunting that occurs when sucking insects are at work. New shoots emerged from dormant buds and grew well. As the year progressed and rain fell regularly, the sooty mold rinsed away and wasn't replaced. Curious about the cause of the turnaround, we inspected the trees closely and found a lady beetle on every branch.

That lady beetle wave crested and has not resurged. The magnolias recovered and now, eight years later, have yet to exhibit renewed signs of scale. Our native lady beetles may still be suffering from competition by the foreigners but at least these magnolias benefited.

Alone in the Garden? Never! Our mentors will always be with us:

Most of us had a **parent**, **neighbor or other veteran gardener** to guide us through our first attempts to grow. The gardening **advice they gave us** may include facts that took many years to develop and generations to confirm and tweak.

Is there such wisdom in your hands now? Want to pay homage to all those generations of effort? Tell me about it. I'll pass along all I can.

Here's one from reader Darrick Smith:

My favorite practical detail, although I don't use it because I've got no veggie garden, came from my grandfather. Like many a midwesterner of his generation, a summer without a big garden heavy on the tomatoes and sweet corn would be like a winter without Christmas. Every year he would hand pick the tomato worms out of his big patch on a near-daily basis.

When I was about twelve I went on a birdhouse-building kick, placing them at Great-Grandma's old farmstead. The affordable housing greatly increased the bluebird herd in the area.

Grandpa noticed how the bluebirds would sit on an old mullein stalk, scanning the ground out to about a five foot radius looking for ambulatory edibles. The light bulb went on, and when he got home he planted several wooden "mullein stalks" about 4 feet high in his tomato patch. He didn't have much of a bluebird population in town, but cardinals were another matter entirely.

He says he never picked a tomato worm again.

Good groundcover can be a bad actor

Will plants come through groundcover when it gets very thick? I am afraid of it choking out everything. - Rita -

In time, every **groundcover can out-compete** at least some other plants, Rita. This category of plant is supposed to fill and hold space to keep weeds from taking hold, so it wouldn't fit the bill if it wasn't at least a little aggressive. **Some groundcovers take over faster** and hold on more tightly to space than others. **Some plants in the path of a groundcover succumb faster** than others. Many persist but can't grow any larger, replace bulk they may lose to pest or poor growing years, or find open ground where replacements can begin from seed.

Predicting dominance when plants grow on a collision course

When two or more plants are going to tangle, I assess each plant's chances this way:

- 1) Height wins. So if the groundcover is taller than another plant in or near it, the groundcover will win.
- **2)** Evergreen wins. If one of an equal-height pair must vacate the premises during winter but the other can stay on and photosynthesize, it should be no surprise when the evergreen gets the upper hand.
- 3) Wood wins. Trees, shrubs and vines can add a bit of height each year and start from that point the next spring. Herbaceous perennials and annuals have to start at ground level each year. Sooner or later the woody plant wins.

When I ask two or more plants to coexist in what I call a quilt -- a sizable planting that provides a bit more variety but no more and maybe a bit less work than standard groundcover. Using more than one species is my hedge against the bad times that come to every species now and then. In the best quilt, if one plant develops a problem, its comrades are not affected and can close ranks where the wounded goes thin.

When I plant a quilt I try to keep intervention to a minimum. I call it "see who wins." I may plant the west half of a quilt area with *Ajuga*, the east with *Lamium* then allow each to fill its own space and mix it up along their shared boundary.

Groundcover quilts: energy to grow together, contrast to please the eye

In choosing plants for a quilt:

1) I look for players with compatible energy levels. If one is *Pachysandra terminalis*, which is a steamroller but rather slow, I don't pair it with a speed demon like *Ajuga*. If one is an ericaceous plant such as *Rhododendron* that struggles in Midwest soil, I won't handicap it with an evergreen groundcover that will monopolize the rhodo's root space all year and make the growing even slower.

2) I aim for pleasing contrast within my self-imposed constraints of height, evergreen and woodiness. *Pachysandra procumbens* is our native species and it's semi-evergreen. Using that gives me more partners to choose from. I might try snow in summer (*Cerastium tomentosum*) for its finer texture and to blend its gray with the *Pachysandra*'s green. Or I can use companions that have already proven themselves to be equal to the task, such as Japanese painted fern (*Athyrium g.* 'Pictum') and lenten rose (*Helleborus x orientalis*).

Expert Gardener Afield: Highland, Michigan

Steven's just come in full of energy; I'm flagging. Take a peek through his expert eyes at ideas for this week in your garden. Photos ©2009 Steven Nikkila

Hello everyone!

Last week Janet and I took a walk in Highland Recreation Area and saw many monarch caterpillars, but I didn't have my camera! Today I went back with my camera in search of a monarch caterpillar on milkweed or butterfly weed, and didn't find any!

Was it a lost day? No, it turned out to be a very special day. I found so many interesting things I didn't expect to find that I just had to show someone. So here are a few of the photos I took as I hunted caterpillars.

The first thing we found ("we" because I was walking with Kiyo and Kolme, our black labs) was "Zeke." Zeke is a 14 month old yellow lab that brought his leash to the expedition, but not his owner. At first, I had to simply let Zeke, Kiyo and Kolme play. Then I was able to read his name and a phone number off his collar and called his owners. He had wandered away from his owner while they were picking some wonderful wild black raspberries. We met up, they went on their way and we started our caterpillar hunt.

A tip: Learn to notice the unusual. It will help you take better photos and also take better care of your gardens.





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At the first clump of milkweed we found I looked for damaged leaves. I didn't see any and was about to move on when I spotted a green lump that looked out of place. It was a tree frog. "Be still my beating heart," I thought, "and get a photo!" Always try to get a photo of the unusual, you never know when you'll see it again.

Trying to get close and not scare the frog away was a challenge. (Fortunately, Kiyo and Kolme were willing to let me handle this part of the shoot on my own.) I try to

get as close as possible, taking photos as I move, never knowing what. When I got one that I thought was what I was trying

to get, we moved on.

As we walked down the path I noticed more frogs on milkweed and took many more photos. One of the frogs looked right at the camera.

Farther along, frustration set in: No caterpillars. No more frogs. Then against a brown leaf, another green spot. This one was a grasshopper nymph, posing against what seemed a nice background. As I surveyed the area, a slight movement caught my eye: Another 'hopper, this one on a green leaf. I shot them both. Sometimes you think one photo opportunity is better than another but always take both because once you look them over the results can be surprising.

A shiny spot on a milkweed flower catches the eye. It's a Japanese beetle.





While composing the photo I notice a ladybug and a milkweed beetle are also on that flower.

Time to start heading home. I notice a bird looking at me and like its frame of leaves. Further along that line of sight I notice a different color, blue. A bluebird? Quickly I refocused on a pleasant surprise, an indigo bunting. The bird moved, posing in an even better spot.

What a walk! I didn't find last week's caterpillars but the outing was still a success.

Remember: Use those eyes and enjoy the world around you.

Steven Nikkila

Steven Nikkila is a horticulturist and photographer

who took the walk described here and wrote it up after spending 8 hours watering, planting, mulching and reconfiguring a large container garden.

This week in Janet's garden Grow with me! This week I will:

Just **keep cutting**. I feel like a bore now, doing the same thing over and over:

If it's brown, I cut it down. Even bare space looks better than brown.

I guess there is some variation in my work this week. I'm also **cutting out** white — **mildew**ed plants are not nice to look at and the sooner their sporeladen foliage comes out of the bed, the better.

I don't worry about cut-back plants dying. Year after year I dare them to

do it and they just keep coming back despite my abuse.



Water. Which is fun in the hot weather. Not as much fun as sitting indoors and watching Ma Nature water for me, but fun nonetheless.

Wrap-up with Grins and Grow-ans that turn our green thumbs up or down

Grins: To identifying the two rare items in this photo.

(From the right answers I'll pull one name to receive a copy of my 6-volume CD with over 1,300 of my Q&A's plus a hard copy of the classic "Complete Shade Gardener" by George Schenk.)

Grow-ans: To having fussed so to find sticks of sufficient height to stake



a perennial, only to have the *plant* fail to measure up so that now I must clip off the tops of its crutches. It's always something: In one garden, it's variegated obedient plant, over three feet tall last year, that's petered out at two feet (inhibited by sunflower seed hulls accumulating there, fall-out from a new bird feeder). In another bed, it's a Japanese anemone, stunted for reasons I hope to discover and pray will not correct themselves right after I cut off the top of its stakes.

Who's Janet?

A professional gardener and educator since 1984, Janet Macunovich designs, plants and tends gardens through her business, Perennial Favorites. She teaches and writes about gardening at schools, conferences, in her books, this weekly column, the monthly Michigan Gardener and other publications. Email questions to her at JMaxGarden@aol.com.

Where to catch Janet and friends* in-person:

*See August 15 on and "Invite Janet or Steven" on page 12

Saturday, **July 25**, 8:00 a.m. - noon, "Garden by Janet - Bring your gloves and tools!" At the Detroit Zoo, Woodward Avenue at I-696. Your chance to volunteer at the zoo in exchange for Janet's hands-on instruction in topic. We'll be deadheading, diagnosing problems, and designing on this day. To join Janet on this day, email mstgarden@yahoo.com with the subject line "I'll volunteer at the Zoo with Janet."

Wednesday, July 29, 6-9 p.m., "Summer in the Garden: An Expert's Perspective" Come hear and see Janet's take on what makes a garden grow and makes for fun in summer. This talk is based on examples from the Belleville Garden Club Garden Walk (Sunday, July 26, 11 a.m. to 4 p.m.; purchase tickets at the Belleville library, \$8 in advance, \$10 on the day of the walk). You don't have to attend the walk to appreciate Janet's follow-up presentation but if you do you're likely to recognize a whole new dimension in on-site learning. The talk is at the Fred C. Fisher Library in downtown Belleville, Michigan. Free. Call 734-699-3291 to reserve a seat.

Garden by Janet - Bring your gloves and tools! for Pruning Trees and Shrubs: Keep them small and shapely

August is prime time for pruning woody plants to keep them small. All around the Detroit, Michigan area Janet has appointments with trees and you're can attend. Janet covers: How well and how long popular landscape plants hold up to pruning, and simple techniques for keeping plants within the bounds you set. Free. You must contact Janet for location details. You can attend at one or a combination of these locations:

- New date: Thursday, August 13, 9 a.m. in Grosse Pointe Shores. Prune yews, oakleaf hydrangea and more.
- Thursday, August 13, 7 p.m. in Rochester Hills. Prune crabapples and evaluating the performance and future needs of a serviceberry tree last pruned in this way in 2008.
- Saturday, August 15, 8:30 a.m. in Grosse Pointe. An upright Japanese maple and a coral bark maple are the focus.
- Saturday, August 15, 2:00 p.m. in Farmington Hills. A magnolia, serviceberry and fir tree.
- Monday, August 17, 6:00 p.m. in Livonia. A weeping Japanese maple, yews and a dwarf white pine.
- Questions? Or to reserve a spot in these limited-space workshops, call or email Janet: 248-681-7850 or JMaxGarden@aol.com. Include your name and phone number on the phone message or in your email, and make the subject of your email "pruning with Janet."

Saturday, August 15, 7 a.m., "Shoot! That's Steven!" Bring your camera and join horticultural photographer Steven Nikkila on a photo shoot in one of his favorite gardens. Too early in the day for you? Then that may be his first lesson to you: Shoot when the light is soft! This is a free but limited-space workshop. Call or email Steven to reserve a spot: 248-681-7850 or hortphoto@gmail.com. Include your name and phone number on the phone message or in your email, and make the subject of your email "shooting with Steven."

Invite Janet or Steven to your club or community.

We go where we're invited. That's taken us all over the country and then some over the past 20 years. We address many topics, drawing from our list of 100+ talks. We also continue to meet groups' needs and expand our own horizons by developing new material or "hybridizing" from what we already have.

So, whether it's...

- a how-to lesson for a garden club meeting,
- a hands-on workshop at a site of your choosing or
- a multi-part class for a small group,

...we're game!

We can also connect you to one or a whole line-up of other experts who know how to explain how-to. So give us a **call or send an email** to make a date, request our list of classes and talks or get a referral. **JMaxGarden@aol.com or 248-681-7850**. Our calendars fill about a year in advance for spring weekends, and six months ahead for most other weekends and evenings, so give us some lead time. Then we can meet you in *your* garden.





Steven Nikkila and Janet Macunovich (above, left) have been digging, shooting and teaching how-to for 22 years. They began bringing producing conferences in the early '90s and then ran a gardening school for 12 years to present instructors who knew their stuff in the garden as well as knowing how to get their messages across in front of a group. That line-up includes people like Deb Hall (above, right) who dug many a planting hole with Janet as well as impressing her with unmatched ingenuity, creativity and humor. Janet and Steve are glad to help you themselves or refer you to these others to meet your group's need. Contact them at JMaxGarden@aol.com or 248-681-7850 when you want to set up a talk, workshop or class. Photos ©2009 Sonja Nikkila and ©2009 Steven Nikkila

About attending **Gardens by Janet** sessions:

We gardeners are let-me-see, hands-on people and that's how we learn best. In these sessions, I offer you that kind of chance to grow. You can visit me where I'm working and you can either watch or work with me side by side. I hope you'll bring your gloves and join in so you realize the most value for the time.

At the gardens I tend through my business, Perennial Favorites: My clients understand my enthusiasm for teaching. Some open their gardens to small groups who want to see and practice "how to." When the work I'm scheduled to do may be of interest to you, I invite you in.

In the **Detroit Zoo Adopt-A-Garden** program: I'm a 21-year veteran of this great program. Many people have worked with me there, some for a day and others for years. We have fun, we learn, we accomplish much. The official program requires that regular garden volunteers complete an interview and orientation process but you can come as my student on an temporary pass for a day or two. **To join me at the Zoo**, email mstgarden@yahoo.com. Make the subject line of your email "I'll help at the zoo with Janet." That email will connect you to my friend Deb Tosch who keeps my group's schedule straight. You'll receive upcoming work dates, directions for meeting up with my group at the zoo as a temporary helper, plus all you need to sign up officially in case you decide to stay on.