

## What's Coming Up:

Janet Macunovich answers your growing concerns  
Issue #40, May 9, 2009

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'Tis the season for moving quickly to keep up with plant growth.  
Want that *Clematis* (right) to look wonderful when it blooms?  
Then be there every few days in spring to guide its twining  
leafstalks where you want them to go. Or resign yourself to  
admiring blooms atop a tangled heap.  
Photo ©2009 Steven Nikkila



### Much ado about mildew on phlox and bee balm

I had **mildew on my Monarda and Phlox** last year. I did find an anti-fungal which the store told me to put on in June. If you have any other suggestions, I would welcome them. - Gena -



Powdery mildew is best known as a white coating on leaves of species such as tall phlox, bee balm, *Cosmos* and *Pulmonaria*. It can cause a variety of symptoms, from an initial pale spotting to stunting, distortion or browning of the foliage. This phlox (*P. paniculata*), showing most of those signs, is better off on the compost pile than in treatment. Photo ©2009 Steven Nikkila

Three ideas, Gena. **First, divide** your tall phlox (*Phlox paniculata*) and bee balm (*Monarda didyma*). Right now, remove the clump or colony. Divide it, discarding all of the old plant and **keeping only a few 3- to 5 stem divisions** from the young, energetic



outer edge. Add compost to renew the soil -- at least as much by volume as plant matter and root ball you removed. Then, **give each division its own 18-inch circle** when you replant. Water them in, mulch them well, then watch them grow like crazy to fill their air space with gorgeous bloom.

This means the bulk of each clump of phlox or bee balm must go to the compost or to friends. That's the way it should be with such prolific species.

Second suggestion: Simply **throw away your mildew-prone plants**. Come on, you can do it. **Replace them with mildew resistant varieties**. In phloxes, **'Orange Perfection'** is my favorite for many reasons, including its mildew resistance. It's not orange but salmon, and is shorter than most tall phlox. **'Eva Cullom,'** pink with a dark eye, is another on my list of favorites. It's been mildew-free in my gardens for years. Both of these have additional winning traits -- they're long blooming and not invasive.

In bee balm, I've liked **'Violet Queen'** for 30 years. Perhaps second on my list is **'Jacob Cline'** (a.k.a. 'Jacob Kline'), a very clean red. It's been many years since I grew **'Marshall's Delight'** bee balm but I remember it as care free and see that the Chicago Botanic Garden\* plant evaluation program also gave it high marks for disease resistance.



(above: Bee balm; photo ©2009 Steven Nikila)



Many plants, even barberry, can fall prey to mildew. Although different fungi may cause the problem for different plants, the basic approach to control is the same for every plant: Make sure the plant has the light, water and air movement it needs to be healthy. Plant resistant varieties. If you use a fungicide, do so when the weather is conducive to mildew development, especially on days when it'll be cool by night, warm the next morning and the relative humidity is high. Photo ©2009 Steven Nikila

Suggestion number three is that if you choose **to treat a mildew-prone plant with a fungicide** -- commercially prepared conventional product, alternative such as garlic oil, or home

brew such as scouring rush tea or baking soda -- **first make the plant as healthy as can be**. Then be smart in how you apply the fungicide.

Insure plant health by **removing all infected plant parts** during and at the end of the year, **dividing to thin** the plant's stems every spring and making sure the soil around the plant remains steadily **moist but never soggy**. Bee balm is especially susceptible to mildew when it's grown where the soil dries down between waterings. (We're told to keep a plant dry to prevent mildew. Yet moist soil is a good thing if it fends off stress. In addition, *forceful* showers of water actually clean fungal spores off the leaves.\*\*)

Being smart is to watch the weather and the plants so you **begin applying the fungicide at the first sign of infection**. Fungicides are short lived preventives, not cures. Apply them before the fungus begins to grow and it's wasted effort. Wait too long and so much damage may already be done to the infected foliage and stems that the plant sheds them.

So apply the fungicide not by the calendar but by weather conditions or symptoms. Infections begin each year when the weather becomes warm by day but is still quite cool at night so relative humidity is high. Watch for periods when mornings are in the mid-70's after an evening of high relative humidity.

As for **symptoms, hold one of the lower leaves up to the light**. These leaves, usually first infected, will show pale spots within where the fungus is consuming the plant's sugars. Don't wait for white leaves; that's like waiting to treat a case of scurvy only after your teeth fall out.

\* Copy these URLs to your browser bar: [www.chicago-botanic.org/downloads/planteval\\_notes/no12\\_monarda.pdf](http://www.chicago-botanic.org/downloads/planteval_notes/no12_monarda.pdf)  
OR [www.chicago-botanic.org/downloads/planteval\\_notes/no13\\_phlox.pdf](http://www.chicago-botanic.org/downloads/planteval_notes/no13_phlox.pdf)

\*\* Copy this URL to your browser bar to learn more:  
<http://pss.uvm.edu/ppp/pubs/coh39mildew.htm>

## **Looking for disease resistant varieties of tall phlox or bee balm?**

At the garden center, read the tag! **Doesn't say mildew resistant? Pass it by**. If it claims resistance, give it a try.

However, resistance is not immunity and there are various levels of resistance. To speed your acquisition of the best varieties, **speak with those who actually grow phlox or bee balm** in gardens. Ask them for the straight scoop on how a particular type performs.

To talk to gardeners and then walk out with a mildew resistant plant, go to **botanical gardens' plant sales** or **nurseries that sell only plants** and grow those perennials outdoors in gardens or garden-like situations.

**Three such opportunities** coming up:

- The annual spring plant sale, this weekend at University of Michigan's **Matthaei Botanical Gardens in Ann Arbor**. Phlox 'Marshall's Delight' and bee balm 'Jacob Kline' are on the list of plants for sale. (I'm there on Sunday with a presentation to help you choose. See page 11.)
- The **spring plant sale at Cranbrook Gardens** in Bloomfield Hills, Michigan. (May 12-13; see page 12.) It's a great place to buy **woodland wildflowers** rescued from construction sites by Cranbrook Gardens volunteers. **Traditional perennials** are available, too. You can buy divisions from two phloxes grown at Cranbrook whose minders give them high marks for mildewlessness -- 'Pink Petticoat' and the heirloom 'Cranbrook Phlox'.
- **Specialty Growers spring open house** in Howell, Michigan, May 30 and May 31. (I'll be there both days; see page 12.) Phlox 'Eva Cullom' is there, as are five others rated mildew resistant by the nursery's owner, perennial wiz Karen Bovio. Bovio also sells bee balm 'Jacob Cline' and 'Grand Marshall,' commending them for disease resistance. Read or download Bovio's instructive catalog at [www.specialtygrowers.net](http://www.specialtygrowers.net)



## Arborvitae lose their long skirts to reveal ugly ankles

My neighbor has an **arborvitae** border that is **15 years old. They are all dying.** The brown starts from the bottom and continues up the tree (shrub). It started at the end of last summer and got worse over the winter. She had an arborist come out but he cannot understand why they are dying. Any suggestions? - C.C. -



Arborvitae or white cedar (*Thuja occidentalis*) should look like this fine specimen, full right to the ground. Thinning or loss of lower foliage and limbs means something is not right, and low light is very often the cause. Photo ©2009 Steven Nikkila

They were growing well and now they're not, so **something has changed in the environment**, C.C. Identify the change and you can probably alleviate its consequences. Consider what could have happened near those plants that would result in:

**Reduced light.** Happens frequently to arborvitae in part shade to begin with. As they grow taller their nether regions become increasingly shaded by their own tops. The tops thicken as they reach better light. The lowest foliage dies. Are the tops still growing well and in sunlight more hours per day than the dying parts? Such plants are telling us, "Well, no sense keeping that low-return shaded foliage down below, I'm going for the gusto, doing my growing up here in the sun from now on."

**Root damage.** They may have been cut, compacted, covered, drenched with something toxic, or reached the edge of a restricted space.

**A change in drainage.** Especially if more water is being retained in the soil; I saw it happen once when a big elm nearby was taken down. Suddenly the hundreds of gallons of water that elm had been lifting out of the soil, stayed put.

**Exposure to gas or chemicals** low on the plant. Chlorine from a pool? Paint? Deck cleaner? An underground gas leak?

If you can **figure the change**, you may be able to **reverse it or counteract its** effect. Then, see what happens. Don't put it off. Foliage lost low on an arborvitae doesn't grow back once limbs go bare. When such a plant recovers, it just grows more new foliage up top.

## Go to lengths -- and heights -- to avoid lead poisoning

Hi there, Janet. I have discovered **a new problem in my yard. High lead levels**, discovered in a soil test done through the Detroit Agricultural Network. It has been suggested that I shouldn't even dig along the neighbor's house. Do you have any desire to research and make suggestions about this situation? Anything like a way of maintaining the bed that avoids any soil contact or disturbance? They made suggestions about how to avoid tracking dirt into the house and using mulch, I guess to hold and cover the soil. - Ruth -

**Lead contamination** is common in cities world-wide#, Ruth. It's a consequence of lead based **paint crumbling from house to soil**, persistent residues from **leaded gasoline** and **fall-out from smelters** and other industrial processes. Lead inhibits or stops seed germination and elongation of roots so some plants die or are stunted when planted there. The metal's toxic to soil mixers and aerators such as earthworms, so lead-contaminated ground can become increasingly dense, less airy and tougher on roots.

Lead **tends to remain where it fell**, which makes the area directly below painted wood a high risk area. It doesn't migrate down into the soil, either, but **remains near the surface**. That increases our exposure to that soil **directly or as dust**. Children who play in it are most at risk because they have greater contact and are more susceptible to its effects.

So yes, **cover the soil with mulch, more soil, pavement or sod** as one way to reduce lead's impact on people.

Some plants can grow in lead-tainted soil. If they're vegetables, lead-bearing dust can fall on them. **Wash vegetables thoroughly** to avoid ingesting that lead and all its woes. If the plants can take up metal through their roots (not all can) and also accumulate it in parts that we eat, that's even more trouble.

**Remediation, by replacing the soil** or sifting and treating it to remove lead are both extremely expensive processes. Research is ongoing on bioremediation techniques -- using microorganisms, fungi, plants or their natural enzymes to clean a site of toxic waste. This includes phytoremediation -- using "hyperaccumulator" plants that can take up lead and store it within their tissues. The hope is that we can grow plants which draw lead from the soil, then remove and take them away to toxic dump sites. That will reduce lead content while the soil remains in place. Those **processes are still being evaluated for overall effectiveness** and practicality.

So gardening on soil with high lead content must involve at least three things: Raised beds, avoiding hyper-accumulator plants, and washing all produce thoroughly before use.

**Build a raised bed**, at least 18 inches deep so plants have all the room their roots need. Line its bottom with seamless landscape fabric so water can drain away but roots can't grow through to lead-bearing soil below. Fill that bed with clean soil and/or clean compost.

Don't trade one contaminant for another: For a **wooden planter, use natural cedar** (see next page) rather than chemically treated lumber.

Unless you grow in a clean raised bed on your lot, you should **avoid growing crops that can take up lead**, especially those that store it in parts we eat. The **mustard family** is one to avoid, including Brussels sprouts, cabbage, kale, kohlrabi, pak choy, broccoli, cauliflower and rapeseed. (There are also many flowers in this family, from *Arabis* -- rock cress -- to sweet alyssum.) **Spinach, sunflowers and tomatoes** also absorb and store lead in the leaves, seeds and fruit we eat.

#To learn more, copy these URLs to your browser bar:  
[www.thefoodproject.org/agriculture/Internal1.asp?ID=185](http://www.thefoodproject.org/agriculture/Internal1.asp?ID=185)  
OR <http://www.cityfarmer.org/urbansoils.html>



Raised beds meant to keep plants from rooting into lead-contaminated soil must be tall but they don't have to be ugly. My friend Wil Strickland put a sparkle in every passerby eye with his colorful raised beds (below).



Although lead has been removed from paints other chemicals may insert themselves into your vegetable garden picture if you use chemically-treated "pressurized" lumber to build a raised bed. Instead, build it as this one (above) from long lasting natural cedar. Photos ©2009 Steven Nikkila

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

Try to keep up! Everything's growing like sixty, making up for a slow start. Take *Clematis* I cut back as an example -- they are a late blooming *C. viticella* and a large flowered hybrid from which I clipped one-third of the canes and shortened the remainder by half. Each now sports a cluster of fast growing replacement canes coming from its base, each seeking a hold on whatever might support it, using leafstalks that twist around whatever they find. It doesn't work to try to sort them out once they're already tangled. What works is to **walk past the vine every few days and push tendrils in the direction I think they should go.**

*Clematis* like to have their feet in shade and heads in the sun. That means that like most vines, they may grow in the shade but only bloom once they reach the sun. There's no getting around that - the flowers will be concentrated at the sunny, top part of each vine. To spread them out, guide the vines over a wider area. Photo ©2009 Steven Nikkila

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**Stake, using twiggy branches** saved from April's pruning and cutting back. With them I create a framework for floppy plants.



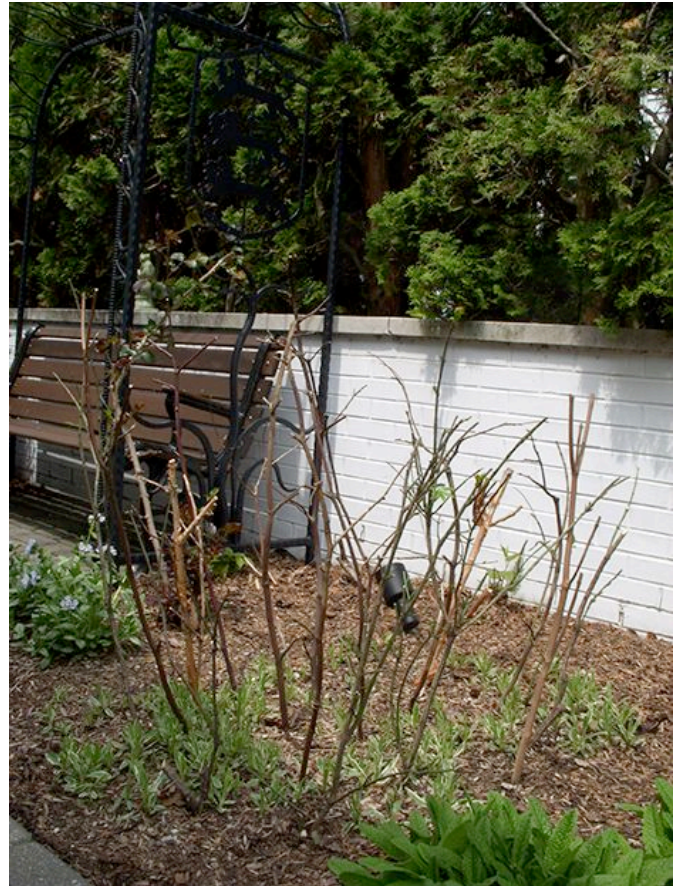


I can't stake those peonies, anemones and delphiniums *after* they fall, not if I hope they'll maintain any grace.



These twigs will go into the ground where perennials can lean into their forks and twiggy outcrops. At right, a group of twigs will keep a variegated obedient plant colony on its feet. Photos ©2009 by the author

While staking, I ran out of leafless branches from April's cuts. So I took more out of a burning bush, which won't miss them. Few shrubs provide such perfectly formed plant crutches. I clip off the leafy twigs to leave just the forked bases.



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**Cut back what I missed.** It's not too late to cut **ornamental grasses**, for instance.

Forgot to cut back this feather reed grass (left, *Calamagrostis acutiflora*). Now, the new growth is all mixed up with the old. It would take an hour to clip out the old while preserving the new.

So I cut it all (right). Not as low as I would have a month ago. Although it may look flat for a couple of weeks it'll regain its natural peak, and its June bloom won't be affected.

Photos ©2009 by the author  
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**Cut spring bloomers as they finish blooming**, removing a few old limbs from each. Forsythia's on the block this week. If I do this annually to lilac, spring spirea, flowering almond, quince, etc., they never stop forming new, vigorous, heavy blooming wood. There's no clutter of old stuff.



Just look at all the low and inside growth popping out on this oakleaf hydrangea. I pruned it last July right after it bloomed. I reached in and removed whole old canes, right to the ground. Now in this season of strong new growth, the straight new canes (arrows) that started up from the base last summer will take off like rockets, and dormant buds have sprouted all along the remaining older wood. Photos ©2009 by the author



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**Check in on known pest problems** and intervene where I must. One is **boxwood leaf miner** insects, about to come out of the leaves they've eaten away from the inside. They're wriggling orange larvae that were untouchable while ensconced in the leaves unless I chose to prune or pluck off all infested foliage and hot compost it. They will emerge as gnats very soon to lay eggs and start the whole cycle again. At that point they'll be touch-able.

So I can prepare to **spray an oil to smother them** as they emerge, **apply an insecticidal soap** every few days once they're out and flying, or **apply a systemic insecticide** to the new foliage so it will poison any larva that takes a bite. Systemic insecticides are my last-resort choice for many reasons, including the fact that some leaf damage must occur for the pest to be killed -- I'd rather head off all the damage I can by nipping the new generation in bud.





Green mountain boxwood (left) becomes brown? You know there's a problem so a closer look's in order. This shrub has both boxwood psyllid trouble and a leaf miner infestation.



Boxwood psyllids are out now, but not yet sheltered by foliage that will soon be cupped and distorted by their sucking. They're visible (above, right) as tiny white flecks on the growing tips. An insecticidal soap or oil can put a serious dent in their number.



Leaf miners have finished destroying the insides of many leaves on the plant, and psyllid have distorted and stunted the tip growth (left).

Each miner, orange larvae of a gnat-sized fly (below), is about to force its way out of the leaf and pupate, partly exposed. Spray an oil to coat both surfaces of the leaf and many of the pupae will emerge through that film, find the breathing holes in their shells clogged, and will die. Alternatively, spray an insecticide to kill the adults as they fly about seeking mates and to lay eggs on new foliage..

Photos ©2009 Steven Nikkila





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Let the **weeding meditation** take me. All the tough weeding is done for the season so now every visit is a minor physical exertion accompanied by engaging mental calisthenics and internal banter. For examples:

"Look at all you **sweet alyssum seedlings**. Sorry guys, we only need fifty, not fifty thousand."

"Why is it the best and stockiest of the self-sown **foxglove seedlings** are always right in the crown of some perennial?"

"Hmm, now who are you? Where have I seen that leaf before? Ah ha, you're a **bloodroot**. Now why would you want to seed yourself out here into the sun, little one?"

"**A clematis seedling**? Not a fall clematis are you? No offense but they're such weeds... Nope, you're a jackman type. Woo hoo, let's see if we can find a spot for you and see what home-grown hybridizing yields in the way flower color."



"Ho ho, **oxalis**, we have you on the run. Remember when you controlled this whole sector? Is that all the return you can muster, one little clump? Take that, bad boy, you're out of here."

"Now how did I miss a birch tree seedling to let it get that much root and such strong hold. Oh, I see, you're a sucker off the river birch roots. I guess I didn't know you were capable."

Every year, a new weed. Tough to pinpoint the exact reasons for each surge. Suffice to say some years a weed has a good run, sets lots of seed and is offered the opportunities it needs to expand its range. In some gardens I've worked in and visited this spring, deadnettle (a.k.a. henbit, *Lamium amplexicaule*) is the major new player. Gardeners who've never seen it before are asking "What is this, some strange lamium I don't recall planting?" Gardeners who had a little of it last year have a lot of it now, especially if they did not weed well and mulch last fall. This annual winter weed germinates from seed in fall then gets a fast start the next spring. Photos ©2009 by the author

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Keep learning by keeping my eyes open. The **pale leaves and dark veins on this rose** -- chlorosis, a nutrient deficiency -- means the plant is in trouble of some sort, no fooling myself on that count.

Often, chlorosis in a woody plant (left) stems from a root problem or a disconnect between roots and leaves. I wonder if this rose has been



attacked and **infested by cane borers** that are even now feeding inside the main canes low to the ground. Only pruning will tell for sure, by revealing the tunneling or the larvae in the canes.

I can **prune hard now**, and give the shrub time to grow strong new shoots while the season and environment are stimulating and supporting that kind of thing. Or I can wait until after whatever bloom it can muster, accepting less vigorous new shoots for the sake of enjoying the flowers. Usually, I say cut now since the bloom is almost certain to be poor, given the plant's weakened condition.

Where rose cane borer is a problem, every rose pruner should have a tube of Elmer's glue in her pocket, to dab a bit on each cut cane. It seals in the smell of fresh-cut wood -- the smell that would attract an egg-laying borer.

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

**Grins:** To the **joy of working outdoors** on a glorious spring day, inhaling koreanspice viburnum, lilac, and so many other **fresh scents**. I do feel sorry for people stuck in offices, even though I bet they never even think to feel sorry for me on miserable wet days.

**Grow-ans:** To developing a gardener's eye for weeds when your reward for this is recognition and **more work as an expert at toxic weed removal**. This spring I applauded my trainee for taking just one hour to catch on to the nuance of one of the worst weed situations -- a leafless, woody, vining groundcover infested with a woody, vining weed -- in this case, wintercreeper (*Euonymus fortunei*) intertwined with poison ivy. I showed him how to loosen the root-hold of the poison ivy, tug and wiggle it to identify its course through the bed, and then work along that route to evict every bit -- all this without shedding any of the extra layers we'd donned to remain untouched.

## Who's Janet?

**A professional gardener and educator** since 1984, Janet Macunovich has been operating for twice that many years as "**Practical Patty**," a title bestowed by her Aunt Melrose. She's helped a great many people improve their gardens and their lives by sharing her experience and knowledge in understandable terms and practical tactics. When not writing this newsletter she's designing, planting and tending gardens through her business, Perennial Favorites.

## Where to catch Janet and friends\* in-person:

\*See May 12-13

**Sunday, May 10, 12:30 p.m. Perennial Combinations.** At **the University of Michigan Matthaei Botanical Gardens** Janet's speaking during the spring plant sale\*, giving you these tips for which perennials to grow, where and how to combine them to make the most of not only their blooms but their distinctive shapes, foliage colors and textures. \$5 voluntary donation (\$3, Matthaei members) to those who come to the plant sale this day. Matthaei Botanical Gardens is



on Dixboro Road south of Plymouth Road in Ann Arbor, Michigan. Take the Plymouth Road exit (Exit 41) on US-23 and go 1.5 miles east to Dixboro, then right/south about one mile to the garden entrance on your left.

\*For the complete, 10 page list of plants for sale: [www.lsa.umich.edu/mbg/happening/springplantsale2009.asp](http://www.lsa.umich.edu/mbg/happening/springplantsale2009.asp)

**Tuesday, May 12, 2009** from 10 a.m. to 7 p.m. and

**Wednesday, May 13, 2009** from 10 a.m. to 3 p.m. It's the **Cranbrook House and Gardens spring plant sale**, at historic Cranbrook Gardens, Lone Pine road at Cranbrook Road, Bloomfield Hills, Michigan. My good friends and fellow instructors **Judy Jacobs** and **Fran Knorr** are two of many hard-working, well-informed, helpful gardeners who will be on hand to help you find what you need. Woodland wildflowers are a specialty but greenhouse plants and perennials from Cranbrook's gardens are there in plenty. "A ton of cool perennials and the greenhouse is stuffed to the gills, too" is is Judy describes it.

**Saturday, May 16, 8:00 a.m. to 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 spring perennial garden maintenance (weeding, mulching, division, planting and pest I.D.). To join in, send an email to [mstgarden@yahoo.com](mailto:mstgarden@yahoo.com) with subject line "I'll volunteer at the Zoo with Janet."

**Saturday and Sunday, May 30-31, 11 a.m.** **Great Bedfellowss**. At **Specialty Growers Spring Open House**, 4330 Golf Club Drive, east of Latson and north of Grand River midway between Brighton and Howell, Michigan. This is Janet's crash course on finding the perfect mates for perennials you're growing or thinking to add to your gardens. Learn what goes with what and why. All the critical characteristics are covered: Complementary physical features, compatible energy levels, similar cultural needs! \$5. Call Specialty Growers at 517-546-7742 or visit [www.specialtygrowers.net](http://www.specialtygrowers.net) for more details.

### **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**: I've worked for many years with some of my clients, who not only trust me with their landscapes but also understand my enthusiasm for teaching. They 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 and the situation allows on-lookers or apprentices, I invite you in.

I've volunteered in the **Detroit Zoo Adopt-A-Garden** program for 20 years. During that time more than 100 people have worked with me, some for a day and others for years. We have fun, we learn, we accomplish much. **If you'd like to join me at the Detroit Zoo**, email [mstgarden@yahoo.com](mailto:mstgarden@yahoo.com). Make the subject line of your email "I'll help at the zoo with Janet." That email will put you in touch with my good friend Deb Tosch who keeps my group's schedule straight while I plan and lead the work. You'll receive upcoming work dates and instructions for getting to the zoo and meeting up with my group.