What's Coming Up:

Janet Macunovich answers your growing concerns
Issue 26, January 31, 2009

Here you'll find:

White pine (*Pinus strobus*, dwarf form 'Nana') can grow in shade and may suit the gardener tired of fussing over *Rhododendron*s. Page 4 Photo ©2009 Steven Nikkila

When a front yard apple tree fails, its gardener seeks the best replacement tree

Susan asks for **suggestions for a tree** to be "the lone tree **in the front yard**" of a city lot in USDA hardiness zone 6, borderline 5:

Yellowwood. Photo ©2009 Steven Nikkila

"...we had a perfectly sized mature tree that **developed apple scab so we had it removed**," she writes. "Although I would **like to replace it** with a tree that does not drop fruit, it was beautiful in all seasons until it became sick and began to drop leaves in August. I was told not to replace it with another apple, as the scab will still be in the soil and air. I love **redbud** but was told that they should be planted in a semi-sheltered area like very close to a structure, as they are marginal for this zone, and a front yard is not sheltered. I love **pear** trees, but I wonder if a Cleveland Pear will look too small (center-entrance colonial -- one side of the front yard is 60' x 42' from the house to the sidewalk). The **yellowwood** featured in a past issue would probably get too wide. What about a **Chinese elm**?"

I do have **some tree suggestions** for you, Susan, but bear with me first for these responses to the information you're relaying about apple, redbud and callery pear.

First, having had apple scab on one apple or crabapple tree doesn't necessarily preclude planting another apple or crab. Yes, spores of that disease may linger in your yard on bits of

still-intact leaf (but not in the ground; it's not a soil-borne fungus) but those spores are ubiquitous in the crabapple-rich eastern U.S. If you wish, simply select from **scab-resistant crabapple** varieties such as 'Adams,' 'Sugartyme' or 'Prairifire.'

Second, don't rule out redbud on account of hardiness. Redbud (*Cercis canadensis*) is a hardy native of zone 5-6. This woodland plant fares best with bigger trees at its back and overhead to filter wind and take the edge off fast freezes. In an open exposure in colder parts of zone 5 it may die back in the worst winters (a tendency that's earned it the nickname "deadbud"). Yet **redbuds perform well in** many places in zones 5 and 6, even on the front line as street trees. That's because shelter isn't only near buildings. Whole **neighborhoods are sheltered if they have many large trees**. To moving air such treed areas act as a forest. Wind moves up over, around, or slows as it enters. Trees within, even in clearings, benefit from that protection.

Last, the ornamental or "**callery" pear** called Cleveland (*Pyrus calleryana* 'Cleveland Select') is a larger tree than you may have been told. At 35' tall by 15-20' wide, just one **could do a respectable job** of filling a 60' x 40' lawn area.

At forty feet wide and nearly that in height, a **yellowwood** (*Cladrastis kentukea*) might be too large at maturity. By that yardstick the Chinese- or **lacebark elm** (*Ulmus parvifolia*) with its interesting multi-tone bark is also not a good fit -- it's 50' by 50' when it's full grown. Yet that isn't an issue if we adopt the perspective, "I can enjoy it **until it's too big and then replace it**." From that vantage, the yellowwood may be more desirable because it's slower growing than the elm, adding about one foot in height each year versus the elm's 1.5' annual growth rate.

Other trees with multiple seasons of interest that I've used in zone 5 front yards are **kousa dogwood** (*Cornus kousa*, 20-25 feet tall and wide), **Japanese tree lilac** (*Syringa reticulata* 20' tall and wide) and **trident maple** (*Acer buergerianum*, 30' tall and wide).

From now until zone 6 planting season you can use books, check with friends and Google my suggestions. Email again if you have more questions. Tell me more about you and the site and lead us into other temptations.

Are you moving that *again*?!
You realize it's a plant, not furniture, right?
- Exasperated spouse -

Which tree to plant in front of a house can come down to which of a few suited to the site will look best with that home as its backdrop. For instance, a serviceberry's white bloom (left, below) is less than spectacular against a white wall. In that spot the tree's summer green and fall orange might compensate for the loss of spring glory, but its fourth season contribution of smooth, light gray bark will also fade into its background. On the other hand, the kousa dogwood (right) displays its white flowers while in leaf, providing its own backdrop. That floral display as well as the dogwood's maroon fall color and mottled bark will work better than serviceberry against a white background.

Sometimes the answer to "Is it too big?" is best answered by talking about time. Something that will ultimately be too large for a site might still be grown if there will be enough years between planting and full size. We can grow it with the intent to replace it. After all, for many gardeners and even for "right size" trees, change is part of the game. This flowering dogwood (in fall color, above, left) stopped growing at a good size for its city lot. However, its owner grew up in a dogwood woods and so felt it was too ordinary. When the tree began to lose limbs to dogwood blight xxx, the decision to try something different was not so hard as might be imagined. Its replacement (above, right, and below) is a sourwood (*Oxydendrum arboreum* also called lily of the valley tree). It will bloom with dangling white bells in July and glow red-purple in fall. It also has the potential to be too big even in its further-from-the-door position. It's a tree that usually grows 25-30' tall and 20' wide but sometimes continues on to 50' or more. In fifteen years when it's 20' tall, if it's still growing the owner may make another change.

Evergreens for winter interest in a shady yard

Jane attended a November presentation I made about **winter interest in the landscape**. We spoke there and then emailed about her **dissatisfaction with her Rhododendrons**: "...how sparse they are. I get west winds, live off a golf course and ...I do not want to burlap them. I have struggled with these two for years and I'm done. I want something easy, beautiful and something that remains green in the winter, or at least has some great quality that would make it look awesome!! I do like a tidy garden so it would have to be something that doesn't go crazy and that doesn't grow too tall and ruin the view."

"The rhododendrons are in shade (less than 4 hours sun) and I would want nothing taller than what's there, which is approximately 4 feet or maybe a little less. I would have no problem pruning once a year, as long as it's something that would look neat. I'm a pretty fussy person."

"Also, can you **recommend a type of pine tree that doesn't require too much sun**. My backyard is full of large deciduous trees but I absolutely love pine trees... the look of Christmas pine trees, not just something evergreen. I feed the birds and it's good shelter for them. Once again, I would prefer something that stays neat and doesn't grow too huge in height and width. It will also be in shade due to all the big trees. Is there something out there like that?"

Dwarf grapeholly (*Mahonia aquifolium* 'Compactum' (below, photo ©2009 Steven Nikkila) may be the plant to replace your rhododendrons, Jane, if their coarse texture is important to your landscape's composition. If a fine texture plant is acceptable, **Japanese holly** (*Ilex crenata*) or a **dwarf yew** (*Taxus x media* 'Everlow') may suit. These two often make tidy people happier because they don't produce suckers as grapeholly does.

All three of these may eventually require pruning once a year. They may stay under four feet, especially in some shade, but there are some individuals in the ranks which ignore their catalog descriptions and aspire to a foot or two above the norm.

Balsam fir (*Abies balsamea*) and **white pine** (*Pinus strobus*) are both tolerant of shade. The fir has the more classic Christmas tree shape but neither tree will stay dense in shade. Opening up as they do in low light, they may not provide such great shelter for your birds as you wish. Also, both trees will shed lower limbs and stretch up as they gain height and their tip reaches stronger light. You may find yourself replacing such a tree every ten years.

How about going beyond traditional Christmas trees to a pyramidal evergreen better suited for shade? A **pyramidal yew** (*Taxus cuspidata* 'Capitata') is beautiful in shade, and could be a permanent addition since at its full 40' it's still only half the size of a mature fir or pine.

Don't start large with whatever tree you plant. Digging to place a big root ball can cause significant damage to existing trees' roots. More important, the larger the evergreen tree is, the more years of shearing it will have had by the time you get it. Pinched to be denser and more attractive to buyers, it will thin out that much more dramatically to acclimate to your shade.

Thinking about white pine brings the **dwarf white pine** to mind for that four-foot spot your rhododendrons will vacate. *Pinus strobus* 'Nana' is beautiful and neat so you should add it to your list of candidates.

Photo ©2009 Steven Nikkila

Grapeholly (*Mahonia aquifolium*) is a broadleaf evergreen better suited than *Rhododendron* to alkaline soil and dry winters. The species is 6 to 8 feet tall and quite upright but the dwarf grapeholly 'Compactum' (left) is several feet shorter. Because it produces suckers it's also more mounded in appearance. Grapeholly foliage goes maroon in winter then returns to medium green in time to complement its yellow spring blooms. The plant may produce blue berries for the birds in summer if both male and female shrubs are planted. Unfortunately, grapehollies aren't sold by sex so a gardener desirous of berries should shop for the plants while they are in bloom and choose one pollen-bearing plant for each planting.

We work by guess, by gosh and in the dark in pruning tree roots

J.V. writes, "Our driveway needs to be replaced. Sections have lifted and cracked, at least in part because of very large trees nearby. We've been putting it off because we don't want to harm those trees. But trying to shovel snow off this very uneven surface in a snowy winter has become the last straw. **What happens when the trees' roots are cut** as a new driveway's put in?"

Tree roots are stumbling blocks in many landscapes, J.V. They interfere with pavement in one spot, show above ground in a lawn in another, proliferate in drain fields in a third place. So roots are cut all the time and trees survive. That means the real question is, "how much can we cut without causing serious harm?"

The most realistic answers are, "**It's best to avoid all cuts, and any cut is a guess**." On the next page are notes about root systems in general and roots' response to being cut. From them, you can take a stab at applying that to your trees. Just accept that it'll be a stab in the dark since we can't see the whole root system.

The Root Rules

- **Apply the 1/3 rule.** Like tree canopies, root systems seem able to manage if pruning or other situations remove or disconnect up to 1/3 of the peripheral roots. Help the tree recover by pampering the remaining 2/3 with more regular watering and fertilization. Picture the tree from above: a ring of foliage within a ring of roots. Divide that ring into three wedges as in a peace symbol to picture what constitutes one third of the roots. If enough roots are damaged to add up to a one-third portion of that pie, you're putting a serious strain on the tree.

- **Count root tips** when you tally a tree's loss. Tips are critical to a tree's survival, especially those that form a ring from the tree's drip line outward. That ring may be several feet wide but only about 8 inches deep. These peripheral roots collect most of the water and nutrients the tree needs. **Destroy most of the tips at the drip line and you do massive harm.** So to till all around a tree's dripline is worse than cutting through one or two large roots.

- **Respect the flare.** A tree's flare roots produce most of its root tips and they are what give the tree stability. Flare roots are those in the highest tier that radiates outward from the base of the trunk and become a flaring "foot" for the tree. It's better to remove a tree than to cut out or injure too many flare roots.

- **Step back an inch for every foot.** There is no strong barrier to rot between root and trunk, as there is between branch and trunk. (For more, read "A proper pruning cut.") Rot that enters a root may spread to become a vertical column of decayed wood from ground to many feet up within the trunk. However, rot that begins far out along a root might be contained before reaching the trunk. Thus the International Society of Arboriculture recommends that if a large tree root must be cut, measure the diameter of the trunk at about your chest level and don't cut the root any closer to the trunk than one foot for every inch of trunk diameter.

If you consider cutting a flare root, try to picture how many others will remain -- there are often just about as many flare roots as there are major limbs branching off the trunk. This sugar maple had 12 major limbs off its trunk, and about as many flare roots. So look up and count to **estimate how many flare roots there are** and what percent of them your cutting will remove.

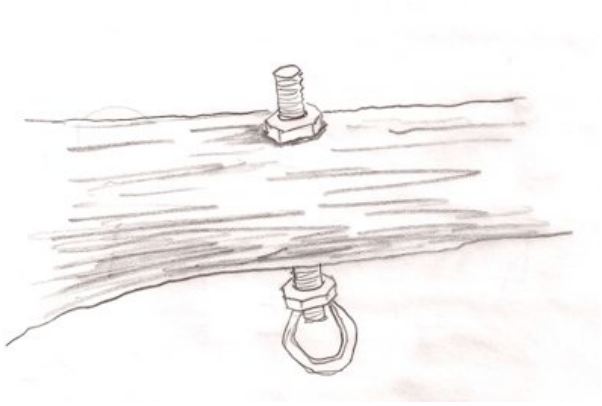
Tree swings: Childhood delight, arborist's dilemma

Diane says, "I am doing a landscape design for a friend and she really has her heart set on placing a swing on a branch of a large tree in the backyard. Is there some way to do this that is least harmful to the branch and tree?"

Some of my fondest memories involve ropes hanging from trees, Diane. I'm not going to deny the current crop of kids that joy. That's why I'll answer you even at the risk of alarming every arborist and engineer I know.

Drill straight up through a sturdy branch, insert a threaded bolt, secure it with locking washers and nuts at top and bottom, and screw an eye-nut onto the bottom. Hardware for this kind of work may be available at a hardware store but most certainly can be purchased from arborists' supply companies* because it's used in cabling and bracing limbs.

* For example, copy this URL to your browser: http://www.northeasternarborist.com/store/index.htm



Then use a hacksaw to shorten that bolt so just a few threads remain above the top nut.

Use a chain to attach rope(s) to hardware. Check the rope at least annually for wear and the nuts for tightness.

The rope will swing without rubbing on the limb and its attachment won't girdle the tree, as often happens when people tie a rope around a limb. The tree will eventually grow right over the hardware just as it can grow over the stub of a pruned limb. At that point there will be no more need to check the nuts annually for tightness.

In choosing a branch, keep in mind that the strongest limb on a tree is a horizontal one, with an angle between it and the trunk close to 90 degrees.

Speaking for the alarmed arborist and engineering folks: It's better for the tree if we don't hang a swing at all. As for what size of branch and specifically which branch on a given tree is strong enough, no one can say for sure. I swung on swings attached after a rope was lobbed over a limb, one or two hefty adults suspended their weight on it and judged the result. Given what I know now about different tree species' branch strength and the effects of grown-over damage within limbs, I realize my injury-free swinging career may be more a matter of luck than anything else. Ice from a winter storm can add hundreds and even thousands of pounds on a large limb, so branches certainly can hold considerable weight. Yet a dynamic live load at the end of a rope is another matter entirely.

Ice storms: All that sparkles is cold... and heavy.

An ice storm that leaves a one-inch coating of ice, can increase a tree's weight by 30 times.
Copy this URL to your browser: http://web.aces.uiuc.edu/vista/pdf_pubs/ICESTORM.pdf

Readers respond:

Old way proves bad practice: Don't paint a pruning wound

Judy read in issue 24 about the oak damaged in an electrical storm and asked, "**What was the black substance that they used on the tree** where the lightning had struck?"

Greetings, Judy. It was probably one of the tar-based (creosote) **"pruning paints"** that was once thought to help prevent rotting. These were long ago shown to be **ineffective and even in some situations detrimental**. Their use continues primarily because some tree care people don't stay "up" on their education and their very visible work becomes a misleading example for lay folk.

Extensive testing in the 1970's proved that no "pruning paint" or other dressing had any deterrent effect on decay within the tree or even affected the presence of fungi in the wood. Asphalt (black tar type), polyurethane and shellac based dressings were all trialed. No dressing stimulated or increased formation of wound wood. **Wounds treated with asphalt were several times more likely to decay** and had much more extensive decay than untreated wood. Dressings containing fungicides were found to be phytotoxic -- they killed plant cells such as surviving cambium.*

* Reported in *Arboriculture: Care of Trees, Shrubs and Vines in the Landscape*; Richard Harris; Prentice-Hall

A lively cambium is crucial to a tree's defense against post-pruning decay. (Read "A Proper Pruning Cut" for more on why killing cambium is a crime.)

Separate tests indicated that some wound paints prevented drying of the exposed wood, allowing insects easier access.

The best practice is to allow the tree to seal pruning cuts on its own. No paint!

Exceptions to the "no paint" rule are trees susceptible to serious fungal diseases carried by insects. In that case a layer of wood glue or latex paint fills the need. That is to contain the scent of exposed wood, since that fragrance is what attracts the insect vectors. For instance, if an oak is pruned during any time of year when fungus-carrying beetles might be flying, wounds should be covered with paint or glue to reduce the chance that beetles will find that wood and introduce deadly oak wilt disease.

Why gardeners need glue at rose-pruning time

Rose- and raspberry growers have found that a drop of wood glue applied to the freshly cut end of a rose- and raspberry cane can reduce the incidence of cane borer damage. It may be that the glue prevents the smell of the cut cane from drifting and attracting insects.

Scale and Extension: More about last week's *Pachysandra* problem

Cheryl Bennerup, plant health specialist at Sunny Border Nursery, one of the country's largest producers of perennial plants, emailed after reading issue 25 including my advice to the gardener with pachysandra problems. "Last year, I was called in to inspect a homeowner's ***Pachysandra terminalis*** which had been doing fine over many years but had begun to deteriorate. It was **dying out** in spots, **lacked vigor** in other spots, **had a black substance on** some of the undersides (thought to be the culprit) and yet in other areas it was strong, vigorous and green."

"Upon further inspection I found the problem areas to be **infested by Euonymus Scale**. The scale produced honeydew which, in turn, attracted black sooty mold as well as aphids. First time I had ever encountered Euonymus Scale on pachysandra. The homeowner decided to pull out the majority of it and treat what remained. We'll see this spring how it's fared. It may need another treatment or two."

"By the way, the unsung **hero in this case was the county Extension** office. I always like to send a sample in to the local extension office and have a confirmation on what I suspect the pest//disease//problem to be. Which indeed they concurred that it was Euonymus scale in this case."

"As for the local extension office - I can't say enough about this service that is paid for by us, the taxpayers. I truly believe we get our money's worth. I know you feel the same way and I encourage all who read your column to know that help is available through this avenue. I know it's not available everywhere and in these times of economic strife I hope it continues to be funded as it really provides a much needed service."

"Love your column. Keep up the great work!"

Pachysandra (Cont'd.)

Thank you, Cheryl! Last week I focused entirely on the idea of that landscape being worn out. Yet it's **vital to correctly identify specific problems** that may need treatment while the landscape's overall health is improved, and scale certainly can be debilitating. Shame on me for neglecting to mention and kudos to you for pointing out that excellent service, the Extension.

To those who will now take a closer look at their own ailing pachysandra this spring: Another scale I've seen on pachysandra is **lecanium scale**, an insect that's dark reddish brown bumps when mature and seems to favor the underside of the leaves and leafstalks. Euonymus scales are gray or white at maturity and are likely to occur on all surfaces. Removing the affected plants (as by mowing) and disposing of the debris can be **first-step control for either of these scales**, as it is for fungal spot control. However, if scale is the culprit **then the follow up work** to nip any resurgent attack on fresh foliage would be with an insecticide rather than fungicide.

This week in Janet's garden

Grow with me! This week I will:

Rinse off the houseplants. They've made it through the darkest time of year and are now beginning to rebound as days lengthen. Grime on the leaves can slows their recovery by reducing the light that reaches the leaf cells.

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Notice which woody plants may need to be rinsed free of **salt grime** before they break bud this spring.

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Be glad of snow cover, for insulation it provides to soil and roots as well as the moisture it'll give to gardens. At the same time, **be suspicious of what the snow is hiding**.

I'll poke around at the bases of small trees and shrubs this week, checking for **damage by voles** working under cover of snow. These rodents, also called "meadow mice" chew through bark to reach starch-filled cambium. They can girdle and kill trunks and canes.

Voles are often kept under control by hawks and owls but heavy snow cover can hamper the birds' hunting.

A Cooper's hawk that hangs around our place perched for a time on our arbor recently. It struck me as hungry and desperate.
Photo ©2009 Steven Nikkila

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Notice and learn from pruning I see being done now by tree care companies and orchardists. They're pruning during thaws while trees are as dormant as they ever are. In winter it's also easiest to see and improve the plant's framework.

I can also see now how well trees pruned last year have fared. Turn the page!

A proper pruning cut

A - Bark layer. Protective tissue created by cambium. Like cork (it's made from bark!) it seals moisture inside. It keeps the moist, rich cambium beneath safe from dehydration, freeze and abrasion. Cannot grow on its own, can only be replaced from within as outer layers wear away.

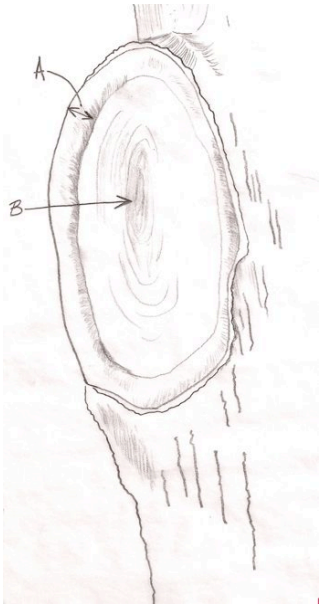
B - Cambium. Living meristem cells. A microscopically thin layer just under the bark. It creates both new wood and new bark each year.

C - Wood. Cells which were initially soft, grown hard by adding lignin to their cell walls until after a few years they cease to be "live" cells. After hardening they are a strong skeleton. They become hollow to conduct sap upward.

D - Branch bark collar. The ring all around the branch where cambium of trunk and cambium of branch, meet. Cut close to it when pruning to leave as short a stub as possible but do not cut into the collar or cut it off. If you do that you will not injure or expose the tree's cambium.

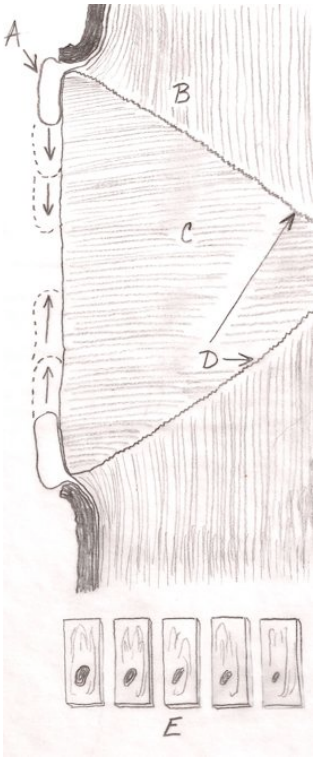
The tree can grow quickly around and over the cut.

A healthy response to that cut (right)



A - "Wound wood" created by surviving cambium. It will expand each year until it meets itself at the center of the wound. Then, the tree's interior will once again be protected by a layer of live cells which can react to damage or insect/disease attack. The amount of wound wood that forms in a year is an indication of the tree's vigor. An arborist on a follow-up visit one growing season after the cut would be encouraged to see the amount of wound wood shown in this drawing.

B - Exposed wood may darken. Although wood cells are considered "dead" because they have ceased to photosynthesize, they are still able to react to exposure. One protective response is to fill with resin, a substance which has anti-fungal and insecticidal properties.



Walling off infection within the tree

At left is that pruning cut in cross-section, showing what happens within the trunk.

A - Wound wood layer. It will expand if growing conditions are good, eventually covering the scar completely.

B - Trunk wood. Cells that were produced by the trunk's cambium layer.

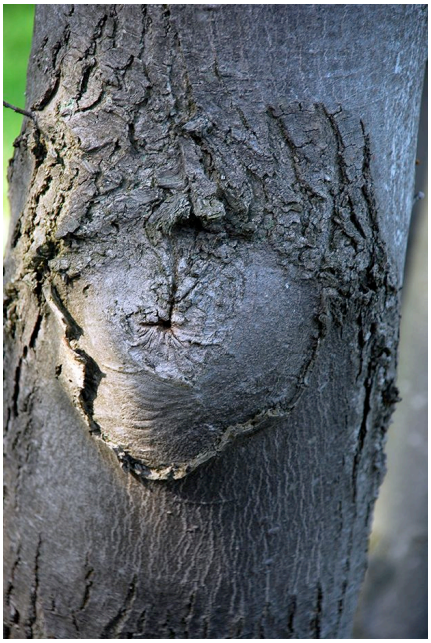
C - Branch wood. Cells that were produced by the branch's cambium layer. This cone shaped base of the branch extends to nearly the center of the trunk.

D - A strong line of defense where B meets C. Cells on each side of the line "know" which group they belong to. Those which were the branch will act to slow and even contain fungi or insects that try to enter the tree's interior through the pruning wound. If decay does manage to begin in the branch base a cavity may form beneath the wound wood as wood is consumed. However, wall D can hold so trunk wood remains undamaged.

E - Knotty lumber. If this trunk is ever cut up for lumber the base of the branch may be seen as a series of knots, large in diameter in an outer-edge plank and smaller on planks that came from near the center of the trunk.

Ready to see it happen in real life? Go to the next page!





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

Grins: To the cardinal, declaring the turn of the season by resuming its territorial song. And it's not even Groundhog Day yet, that mystical milestone on the road out of winter.

Grow-ans: To ice on trees and the years it will take for broken limbs to recover. My heart goes out to my friends in States recently slammed with devastating amounts of ice.

Who's Janet?

Someone more interested in the process of gardening than its products. Janet Macunovich began gardening for others when she ran out of places to make new gardens at her own home. After 25 years of attending classes, interviewing other professionals and experts, accumulating thousands of hours of research to write books and articles, and non-stop practical application she says, "Every garden is unique and every plant behaves differently in each place I put it. In a lifetime I won't be able to see all the combinations and possibilities but I intend to keep trying. What a privilege, to be able to work for others so that 'my' gardens and experience stretch across many counties and States. In addition, I have the joy of stepping into and learning from hundreds of other situations every year by helping students and readers who ask my advice." Email questions to her at JMaxGarden@aol.com.

Where to catch Janet in-person:

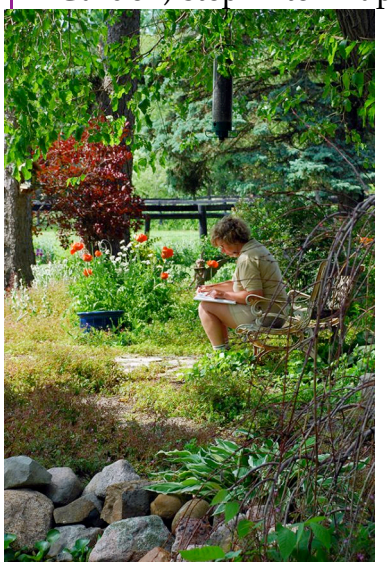
Monday, February 2 at 7 p.m. "**Local Color**." At the Hardy Plant Society meeting, Congregational Church at Cranbrook Road and Woodward in Bloomfield Hills, Michigan. Improving what's already colorful isn't a simple matter of addition or a prescription that works across the gardening world. After all, selections made for fantastic hue in one part of the world

may be duds elsewhere. Janet will help you learn how tones and other influences of indigenous plants, light and even building materials can alter perennial color. Email mzbj@sbcglobal.net or call 248-589-2286 to learn more.

Saturday, February 7. "**Continuous Color in the Landscape**" by Janet Macunovich and "**Effective Photogardening**" by Steven Nikkila. Part of the Winter Gardening Fair presented by Iowa State University Linn County Master Gardeners at Kirkwood Community College, Cedar Rapids, Iowa. This all-day event offers 26 class choices and lunch for just $49 (thanks to hundreds of hours of volunteer support by Master Gardeners, just one more example of all that Master Gardener volunteers give back to the gardening community). Go to www.extension.iastate.edu/linn or call 800-332-2055 to learn more or to register.

Special notice! Janet's good friends, instructors you know: Saturday, February 7, 9:00 a.m. to 12:30 p.m. "**The Refined Native Plant Garden.**"
If you aren't accustomed to seeing the word "refined" associated with native plants, you need to learn about the new cultivars of our native wildflowers. Names like blackeye Susan "Toto" (think small and cute), goldenrod "Goldenmosa" and a shorter Joe Pye plant are some colorful examples that could fit into a sophisticated garden and attract birds, butterflies, and other beneficial creatures. Instructors Karen Bovio (Specialty Growers) and Celia Ryker (Hadley Hill Farm and Garden) step in to wrap up the Detroit Garden Center's 3-part winter seminar series with a presentation created in cooperation with Janet Macunovich. See January 24 listing of "Favorite Plant Picks" to learn more about registration.

Karen Bovio, right, owner of Specialty Growers Nursery in Brighton, Michigan, has three decades of plant growing and plant selection experience. Those who receive Specialty Growers' email notices know and love Karen's in-depth, friendly plant descriptions.



Celia Ryker, left in her Ortonville, Michigan farm garden, has helped gardeners in Michigan and Vermont find native plants to reclaim natural areas and attract wildlife. On February 7 these helpful experts tell you how to incorporate native plants and their benefits in conventional gardens, too.
Photos ©2009 Steven Nikkila

Monday, February 9 at 6:30 p.m. "**The Armchair Gardener**" presented by the Pere Marquette District Library, 185 E. 4th St. in Clare, Michigan. Janet Macunovich explains how to identify visually needy places in your garden or landscape now and plot their cures for spring. Call 989-386-7576 to learn more.

"**Shade Gardening, a Practical Approach**"
Wednesday, February 4, at Telly's Greenhouse in Troy, MI, 9:30 a.m. -12:30 p.m. or 6 - 9 p.m
Plant selection is critical for success in the shade, but so too are design and maintenance strategies, planting among tree roots, and soil preparation techniques that serve not only the new plantings but established trees or shrubs on the site. Janet Macunovich shares 25 years' experience to shed light on dark situations.
To attend, see directions in list of locations at the end of this section
Questions? Call or email Janet: 248-681-7850 or JMaxGarden@aol.com

"**Pruning Trees and Shrubs**"
Tuesday, February 3, at Goldner Walsh Nursery, Pontiac, MI, 2 -5 p.m. or 6 -9 p.m.
Thursday, February 12, at Tollgate Education Center, Novi, MI, 2 -5 p.m. or 6 -9 p.m.
Wednesday, March 18, 6-9 p.m. at Telly's Greenhouse, Troy, MI, 6 - 9 p.m.
If you've ever wondered how and when to prune trees and shrubs to ensure beautiful bloom, good shape, manageable size, and healthy plants, this is for you: Garden designer and writer Janet Macunovich covers: How well and how long popular landscape plants hold up to pruning; Simple, proven techniques for keeping plants within the bounds you set. Macunovich encourages you to "Bring a branch!" Clip a limb from the plants you want to trim, to be sure they are included in the "how to!"
To attend, see directions in list of locations at the end of this section
Questions? Call or email Janet: 248-681-7850 or JMaxGarden@aol.com

Locations for Shade Gardening and Pruning:
At Goldner Walsh Nursery: 559 Orchard Lake Rd., 1-1/2 miles east of Telegraph Road in Pontiac. $20 per session. Cash or check payable to Janet Macunovich. No advance registration required. Satisfaction guaranteed: Pay as you leave!

At Telly's Greenhouse: 3301 John R Rd., just north of Big Beaver in Troy, Michigan
$20 per session. Call Telly's to register: 248-689-8735

At MSU Tollgate Farm Education Center, on Meadowbrook Road just north of 12 Mile Road in Novi. These classes supported by Michigan State University Extension. $20 per session. Cash or check payable to Janet Macunovich. No advance registration required. Satisfaction guaranteed: Pay as you leave! Class meets in the conference center of Tollgate Farm all dates except January 22 when class will meet in the Tollgate Farm Activity Center.