What's Coming Up:

Janet Macunovich and Steven Nikkila
answer your growing concerns
Issue 111, September 22, 2010

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Say "Japanese maple" and people often picture short, weeping forms of *Acer palmatum* such as the 'Crimson Queen' involved on page 5. Yet if you are looking for a small tree and the site is not exposed to wind or afternoon heat, there are many upright forms of this species that can fit the bill. This 'Sango-kaku', or coral bark maple, is one. For more on trees for a courtyard, see pages 11 - 12.

Sandy bed's good, hard bottom's not

I recently removed a large above ground pool and want to use the spot for another mixed border. There is 3 or 4 inches of sand there. Is it necessary to remove it before I add top soil and compost? The top of the sand base is only a couple of inches below grade. - L.M. -

You can plant in the sand. However, do check below it for a hard pan -- a compacted layer. If you find it, correct it. Then add compost to bring the bed up to grade, and start gardening.

Most of the time, **sand is an acceptable amendment** that can lighten a dense soil. Let's say the existing soil is a clay loam that's 40% clay, 40% sand, and 20% silt. (See *Sand, silt and clay* on page 3.) Now add three inches of sand, mixing it well into the zone where most roots grow -- from ground level to 18 inches deep. That makes it a sandy clay loam -- 47% sand, 33% clay and

19% silt. If you aim to turn clay loam into loam -- the perfect-average soil -- you would need at least 7 or 8 inches of sand.

Check for compressed soil -- a hard pan -- below a new bed, and be aware it can develop in existing beds. Correct it if you find it, or plants will not grow as they should. One spot in this garden developed a hard pan where snow was piled and rebounding basketballs tended to land. The stunted *Sedum* clued us in to that buried problem.

You **don't have to mix sand in**. (See *Nature's mix-masters* on page 4.) Sand alone is an acceptable planting medium. However, do **insure that the whole root zone is relatively uniform** in how it accepts water and "breathes." If the garden has horizontal layers of soil so different in density that water and air can't move freely between them, plants may have a tough time growing there.

Fixing packed-down soil: Let's say the soil below the sand is packed down hard from having supported the weight of a swimming pool. That soil might be compressed -- compacted -- to have only 10-20% pore space. The target for good garden loam is 50% pore space. If you simply add loose soil to bring a compacted area up to grade, trouble will develop at the interface between the layer of new soil and the one below. Water will run through the big pores of loose soil but back up at a layer with tiny pores. The upper layer will become soggy, filled with an underground puddle called a perched water table. By the time the water finds it way into and through the compacted layer below, roots in the upper level may die from lack of oxygen.

A test hole solves mysteries. The soil above and in this buried, compacted layer had no oxygen; roots couldn't grow there. Young trees could grow roots only in the thin surface layer. Although they never changed levels they did become thicker and appeared to "surface" later. Sod in this thin soil over a compacted base never developed roots deep enough to sustain it in dry times or withstand grazing by even a few grubs. After some hot summers or a couple of years of ordinary insect activity, the grass declined and weeds began to dominate.

So whenever we've made a bed on ground that was once a walkway, alley, driveway, patio- or pool base, we **dig a test hole to learn about any hard pan**'s depth and thickness. Then we dig deep to mix the old and new soil, or use a post hole digger or soil auger at two-foot intervals throughout the bed to **create areas of intermediate pore space** that allow air and water to flow between the layers.

How deep we dig or drill **depends** on what we found in the test hole. Often, the hard pan under a walkway is just a few inches below grade. Hard pan in a farm field that supported tractors or a garden that was power-tilled might be 8 or 9 inches down. In both cases, the compressed layer may be only an inch or two thick. Natural hardpan, such as old lake bed or where

a glacier once rested, might be much further down and very thick.

We created a bed in an area where we found loose, dark soil to about eight inches down, with hard-packed sand beneath. The home's original driveway may have been in this area but traffic was rerouted and soil mounded here in a re-landscaping project about 20 years ago. We loosened that bed by **double digging**,

which is to remove and set aside the top eight inches of soil, loosen the layer underneath, then put the top soil back in place.

It can be a lot of work to do this, so it's good to have options such as drilling holes, (see page 15!) installing a drain tile or raising the bed high enough to create an 18-inch loose layer *above* any perched water table. Whatever you do, **improving drainage in the root zone is worth it**. It will make a huge difference in how plants grow and give you a broader choice of plants.

Sand, silt and clay: Each has good points and bad

Bedrock fractures into boulders, boulders into stone.
Stone weathers to gravel, which deteriorates to sand.
Sand crumbles further into grains called silt, and silt sheds even tinier bits called clay.

The difference in size between a particle of coarse sand and one of clay is on the same order as the difference between the Empire State Building and a lunch box. The difference in how the particles act is equally large.

We call the feel of a soil texture*, and name soils by texture. Sandy soils are gritty, clay soils slippery, silty soils floury.
*http://www.uwsp.edu/geo/faculty/ritter/glossary/s_u/soil_texture_triangle.html

Sand:
- Large pore spaces. Water soaks in quickly.
- Water falls through quickly.
- Does not readily stick to itself, so a soil with a large proportion of sand grains remains loose.
- Is relatively infertile. It sheds chemical elements from its surfaces but less than clay sheds. Consider the surface area of the outer walls of the Empire State Building. Now, imagine lunch boxes piled as high, and add up all of their surface area. The clay "lunchboxes" are more fertile because they have more surface from which to shed chemicals such as iron, potassium and phosphorus.

Silt:
- Particle size and properties in between sand and clay.

Clay:
- Small pores, so water infiltrates slowly.
- Retains moisture for a relatively long time after being wetted. Moisture in its pores is held against the pull of gravity by capillary action, like a drop of blood clings within a glass pipette.
- Rich; has more exposed surfaces than sand and so sheds more atoms of the minerals in its substance.
- Tends to gather in tight masses, "sticky."

Loam:
- Contains all sizes of mineral particles from sand to clay. The perfect loam is 35% sand, 30% clay and 30% silt.
- We name a soil to describe how it "acts:" Sand, sandy loam, silt, silty loam, loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay and clay.*
- Clay has such great influence on soil's behavior that we call a soil a "clay" even if it contains only about 20% of clay particles, by volume.

Nature's mixmasters

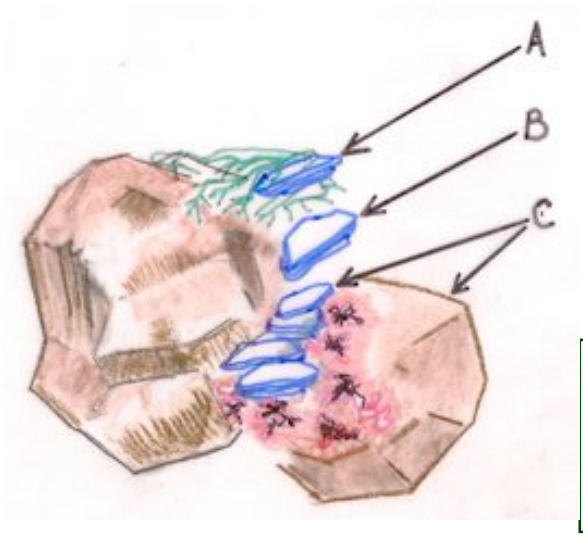
We can mix sand and clay to create a decent bed, but only Nature can make it great.

A great loam has **soil particles held together in crumbs**. Within a crumb may be a few grains of sand, many of silt and a myriad of clay bits. Between crumbs are large pore spaces where water and air can move freely. Within a crumb are tiny pores that act as moisture- and nutrient reservoirs. We say a soil has good structure if it is crumbly.

Some of the particles in a soil crumb "stick" to each other because their surfaces are electrically charged. Clay is more sticky than sand. However, the strongest bonds in the soil crumb are those created by **microbial glue** -- questing threads of fungus, slime shed from worms, decomposing organic matter, insect excrement, etc.

Perhaps you've wondered, "Since everything on Earth has a purpose, what good are grubs?!" All creatures that live in the soil, from burrowing mammals to grubs, mites and fungi help to turn raw mineral particles into rich soil crumbs. They churn and mix sand, silt and clay, contribute to the microbial glue, press bits of various sizes together, and deposit nutrients into the soil "bank."

Recently we dug a new bed in a silty loam with very poor structure. It felt like dry flour. We loosened it, removed the weeds, and planted. Although we had no compost to mix in as we planted, we won't leave it so poor and starved. On top, we'll spread organic fertilizer and a deep layer of compost, then keep it well watered. Soil animals will move in to feed on the organic matter and nutrients. They'll mix the compost with grains of soil on a level shovel and tiller cannot approach. We provided the ingredients, **Nature will turn it into good garden soil.**



Big particles of sand (brown in this sketch) and tinier bits of silt and clay (blue) stick together in crumbs. Clay bit A may be held in place by fungal threads, B by electrical attraction, and C by microbial glue. Within this crumb are tiny pores where water can linger, and many surfaces shedding minerals into that water -- creating a nutrient soup for plant roots. Between crumbs are large spaces where air and water can circulate freely.

Drainage: How water and air move through a soil. In 12 hours, excess water falls out of a well drained soil's pores.

The plough is one of the most ancient and most valuable of man's inventions;
but long before he existed the land was in fact regularly ploughed,
and still continues to be thus ploughed by earth-worms.
- Charles Darwin, in *Earthworms* -

Sprinkle, don't cry, when new Japanese maple dries

My Crimson Queen Japanese Maple which was planted June 1, is loosing its leaves from the bottom up. They get brown on tips and then proceed to crinkle up and fall off. Rest of leaves are getting brown on tips. This does not seem like an Autumn-type of thing and other same trees in my neighborhood are not doing this. A friend had this happen last year and the tree died and never came back. Any clue as to what is happening and what I can do? - N.T. -

These Japanese maple leaf edges may have dried as they formed in spring. In the beginning, the leaf and thus the damaged areas may have been too tiny to attract notice. We see it once the leaf is fully expanded and summer heat increases the dead zones.

Suspect chronic drought problems if leaf tips turn up (arrows, left side) and the leaf petiole (arrow on right) separates from the twig to let the leaf drop away. We say "If the leaf curls up, turn the water up."

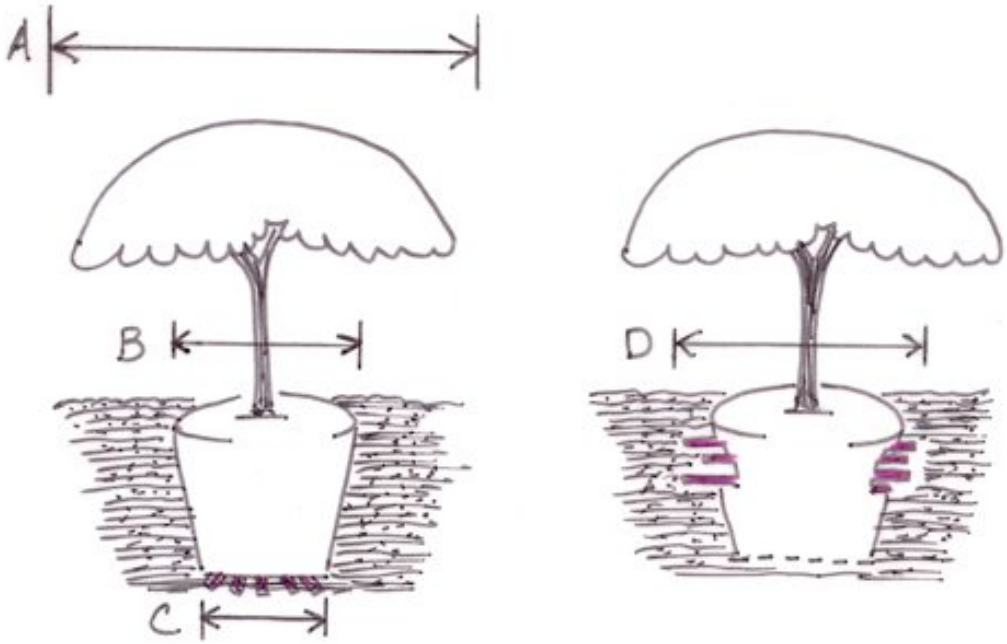
If the leaves suddenly go limp, hang down and die but remain attached to their branches, we suspect sudden root death. The plant is unable even to complete the natural process of leaf drop. (Leaf drop is a living process. It requires energy to form the barrier that detaches the leaf, yet even a struggling plant invests that energy in order to reclaim soluble nutrients from the leaf.) In Japanese maples grown in the open, this sudden collapse is often connected to cambium damage from winter temperature changes. It was described in detail in *What's Coming Up* issue 68, pages 4-10, and recapped in issue #101, page 6.

Doesn't sound like an Autumn thing to us, either. Probably, your **tree is drying out**. This is often a problem for a new plant with its roots still confined to a pot shape. In that configuration, roots are forced to grow deep and close rather than wide. It's made worse by very dry weather.

We hope you **feet the soil in the root zone** -- the original ball and just beyond -- to determine if it's cool (moist) or warm (dry). **Water whenever that soil's dry.** The natural tendency is to assume a new plant's okay if the irrigation has been on. That's a mistake, even in a great growing year. In a dry year it can be a fatal error, as even with irrigation the soil can be dry with a capital D. So please put your fingers in that soil, a couple inches down. If it's moist, email us again so we can consider other options.

Gardeners rarely suspect how much water a new plant needs and how quickly the soil dries in the very narrow space its roots occupy. It's often a revelation to consider how much less area a pot-shaped root ball has from which to draw water than one allowed to grow naturally wide.

Imagine this is a small Japanese maple with a canopy **28" wide (A)**. Grown for sale, it might be sold in a pot 12" wide at the rim and 11" wide at the base. The area from which it can collect water that falls on the soil is:



- **A - 616 square inches** once it can develop a natural root zone, as wide as its branches.
- **B - 113 square inches**, watered in the pot from above.
- **C - 95 square inches**, after planting "as is." Assumes a normal situation, in which the plant's roots had grown down the sides of the pot and congregated at the bottom, and the tree was simply un-potted and set into the ground. All the roots most able to collect water are the tips, and those are almost all at the bottom of the pot. Almost all root growth occurs at the root tips, so this is also the space from which most/all new roots will emerge.
- **D - 154 square inches** if planted in a way to encourage faster, wider rooting. That is: The bottom layer of the pot was sliced off at planting time and the sides of the pot were sliced. This caused new root tips to develop at numerous places. With just one inch of new root extending from the sides of the root ball (this can happen in one week if soil around the edges of the root ball is kept moist) the root-collecting area increases dramatically.

Comparing your tree to others in the neighborhood: It's unfair to compare a new tree to those already in and growing. Notice (diagram, above) that even if you do the best possible thing for a new plant and **cut the root ball before planting**, that tree still has only ¼ as much area from which to draw water, as a tree with roots that have had time to catch up to the canopy.

Another reason your tree is dry when neighborhood trees are not, involves heat. Your Japanese maple is of a species that evolved in the forest understory and does not fare well when exposed to full sun or unmitigated heat. If it's **in a place that traps and reflects heat**, such as a south- or west facing courtyard, its need for water is even greater.

Still another factor in watering amount and frequency may be what's sharing a new tree's root zone. If the tree is **at the drip line of a bigger, established tree** it is at a big disadvantage. If the other tree is a water guzzler like a birch, katsura, willow, spruce or silver maple, the disadvantage can be critical.

As for your friend's tree that died: When **a woody plant's leaves die all at once**, hang dead in place, and this happens about the time the heat really gets going in summer, the first thing we suspect is **cambium damage on the trunk** -- chews, mechanical injury, cords that are girdling, or winter-related dead spots. We suspect this is what happened to your friend's tree, as it's very common on Japanese maples. Such damage causes many roots to die from starvation when the

disrupted cambium can no longer act effectively to convey starch from leaf to root. When summer heat increases the plant's water needs and remaining roots can't keep up, the whole system fails and the leaves die in place.

Some trees are tough neighbors. We worked this week in a bed that has a river birch growing at one end, and a red oak growing to the side. Both trees have branches that reach our bed's edge, so we expected to find their roots in the bed. Digging in the bed on the day after a soaking rain we found the end of the bed filled with river birch roots to be dust dry. The red oak was growing new roots rapidly into the bed -- see the thickened, light colored tips? All brand new growth, probably just two weeks old. Yet even with many such roots in it, the soil in that area had moisture to spare.

New-planted tree's like furniture: Movable!

We had three, 3-foot tall blue spruces (container grown) delivered from a local landscaping company two weeks ago. On the tag it says they 'could' get to 40 ft., which is fine, if that happens. I was not here when they came but my husband was. He is not a gardener and the owner who brought the trees out said just take them out of the plastic containers and how deep to plant them and water daily for 2 weeks. I don't know if my husband asked or the guy just said this but he allegedly told my husband not to unwind or score the girdled roots at all, so he didn't.

I saw my husband as he was planting them. As I was fainting and hitting the ground, I said, "You should loosen those girdled roots," and he wouldn't. He said the landscaper told him the girdled roots will come away and spread out on their own if we water every day. HUH??

The bottom line is do you think these blue spruce have a chance of surviving? - D -

When a plant's roots have grown down the sides of the pot and are congregated in the bottom layer, we slice off that layer and also score the sides. Below, the bottom's off and Janet's slicing the side as the shutter clicks. Every cut root will develop into a new tip. With tips spread all over rather than just at the bottom of the pot, the plant can do more with available moisture. It will also develop new roots from many places, more quickly expanding the root zone and supporting more growth up top.

Never underestimate a plant's will to live. We think they may well survive but if the roots were pot bound we know the trees' chances are improved, their health will be better and you'll see more growth sooner if you **break up any bad root configuration**.

We'd un-plant them, do what might need to be done to the roots, and replant them. Although maybe when you dig up the first one you'll see the roots are not pot bound at all. Then you can leave the other two alone.

We move new plants around all the time to put them in better locations or to correct planting mistakes. We **don't worry about the stress**. Better for the plant to feel this stress at the start than to live with chronic stress, grow poorly and perhaps die young. (Sometimes correcting pot boundedness causes more than a little stress, since it often involves clipping roots. Yet it's still the better way to go.)

We'd also **check to be sure the level** they were at, in the pot, is the correct one. Very often a middleman grower will set "liner" spruces too deep into the pot. In that case they come to the

buyer already in trouble. If the lowest branches are in the soil or touching the soil, remove soil from around the trunk until you can see the widening base of the trunk. Then replant the tree to keep the new surface at grade.

If they're Colorado blue spruces (*Picea pungens glauca*) 40 feet is likely but 60-80 feet is possible if they're really healthy. They should grow about 18 inches each year, once they become established.

Burning bush makes a fine tree

We have 3 very mature burning bushes by our drive. I just tried pruning them and even standing in my husband's pick up truck I can't reach the center of the top. If I want to do a radical prune, how radical can I go? What are the parameters of a rejuvenating prune? When is the best time to do this? - J.A. -

This dwarf burning bush (*Euonymus alatus compacta*) makes a beautiful small tree 10 - 12 feet tall. The standard (non-dwarf) reaches 15 feet.
If a shrub's too wide, closing in on the drive or walkway, you can make that bush into a tree. Remove lower branches -- do it any time! -- to reduce the width and then walk *under* it. Some species, including burning bush, may never need any other pruning because they tend to remain clean-trunked so long as their tops are not also cut back.

You can prune them right down to stubs -- cut them off at ground level -- and they will sprout new. The best time to do that is **in early April** or late March, some time before the buds break in spring in your area but after the really cold nights have passed. That timing will mean the least work for you, cause the least shock among viewers, and will be simplest for the plant.

It can be hard to imagine that something so big can be cut back hard in this way. Harder still to believe **it can grow new, straight canes 4-5' tall in one year**. Yet it's true.

Now (fall) isn't the best time to cut them but if they're in your way, go ahead. They will probably be fine, but you should be aware of these three possibilities:

1) They might sprout new growth this fall that you will have to prune away next year because it died over winter. There is too little time for such late growth to mature and harden off.

2) They might die back further than you cut them. Then you might want to re-cut the stubs in spring. Otherwise stubs will show when the leaves are off, marring the lines.

3) They might simply die. We doubt it will happen if they're healthy to being with, but it's possible. In that case you haven't lost anything except a plant too big to live within your limits.

You can accomplish a reduction gradually, cutting some canes back each spring. We don't see any advantage to you in pruning for three years to accomplish what you might in one year. Your bushes won't mind an abrupt change unless they're weak for some reason -- being in deep shade, abused for a year or two by construction crew traffic, that kind of thing.

Even when we're working on a dozen topics for a newsletter, Steven keeps taking photos of *other* things and Janet keeps digging up unrelated cool stuff as she gardens. This white-lined sphinx moth (*Hyles lineata*), one of the "hummingbird moths", has no relation to the rest of this issue except it posed for Steven last night, we never tire of seeing them ("Look! Is that a hummingbird hovering there?") and thought some of you who've seen one may have wondered "what's that?"

Hit or Miss: Aiming for Answers. Why a cut-back yew died

There are no sure bets in dealing with living things, but with every situation we learn more possibilities. So we're always glad to hear whether you used our suggestions, and what happened next.

You told us we could cut our yews back and we did, and they didn't sprout. We waited all year. We're sure they're dead now. What happened? - T.T. -

Sometimes that happens. We're sorry for your time spent waiting, but glad you are well on the way to replacing plants that did not fit with your landscape vision.

The **shrub may have been in poor health**, with too little reserve energy to make a comeback. It may have been putting up with pests and could continue to do that so long as it had plenty of foliage to spare. Those **pests may have been too numerous** for a reduced canopy, and consumed new shoots even as they budded out.

It may have been **tolerating a site condition that then thwarted its comeback**. For instance, dormant buds may refuse to sprout in shade, even though the plant previously abided that condition. This is often the case when a shrub grows up and establishes in sun, then is overshadowed as a companion plant keeps growing. It will grow there but not regenerate, and a new plant of its species may refuse to "take."

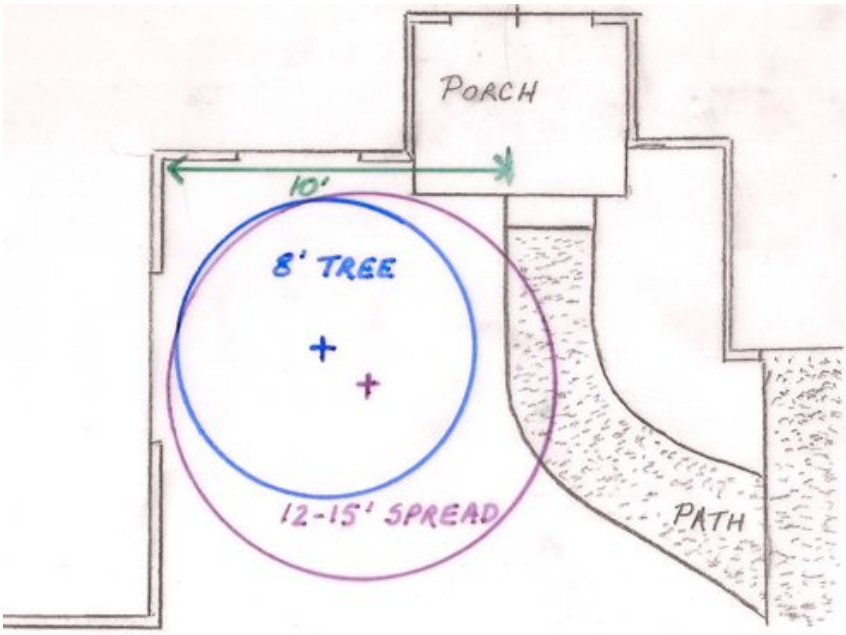
In some plant groups, some are less willing to sprout than others. For instance, the yews most often grown in the U.S. and Canada, *Taxus x media*, are great rebounders. Yet one parent of these hybrid yews -- the Japanese yew, most often seen in U.S. landscapes as the pyramidal form *Taxus cuspidata capitata* -- is much more reticent after being stumped back.

Look, in the courtyard: It's a bush, it's a tree, it's super-shrub!

What is your favorite small ornamental tree for a courtyard? We had to cut down our crabapple ('Weeping Red Jade') because it got apple scab every year and I finally got tired of picking up dead leaves from our front door area all summer. Plus it got too big, I had done some fancy pruning, and then it looked odd. That tree sure was pretty for 2 weeks in the spring - rest of the year, yuck. - L.D. -

This Japanese maple *is* a small tree but can be still too big.

We like good form and clean foliage in trees that are close at hand. If the site's not too hot or exposed **an upright Japanese maple** will work. 'Seiryu' is a green leaf upright form that's good.



We don't think of plants we use as "trees for small courtyards," "shrubs for foundations" or "street trees." We think of them all as utility players and let them try out for a site based on their size and other characteristics which fit the need. For instance, in a courtyard with 10 feet between wall and walkway, we might limit our choices to plants that mature at eight feet, or species a little taller but tree-like in being narrow from ground to eight feet with a canopy that will reach just over the walk. Sometimes that means a shrub makes the best tree for a court.

When we prune a plant to keep it small, it usually means we were so taken with its aesthetic features that we decided extra maintenance, such as regular clipping, was acceptable.

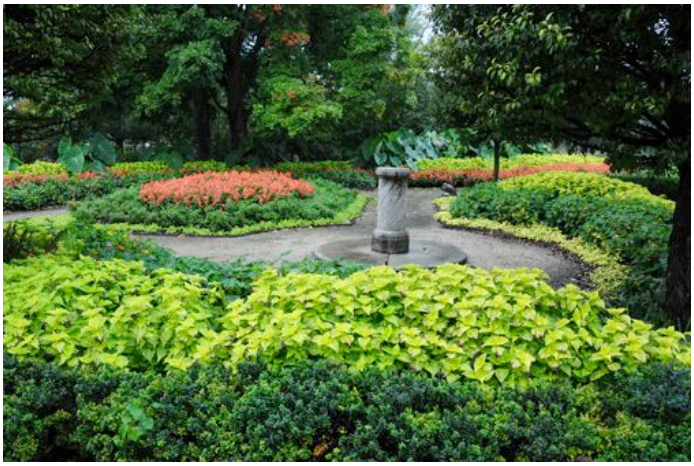
There aren't many trees small enough to work in most courtyards, so **we use tree-like shrubs**, species large enough to pass for a tree, with a tendency to form long-lasting trunks. Panicle hydrangea (*Hydrangea paniculata*), blackhaw viburnum (*V. prunifolium*), seven son shrub (*Heptacodium miconioides*) and the sargent viburnum (*V. sargentii*, especially variety 'Onondaga') are four of those.

The only real drawback to planning to use a shrub as a tree is that what you buy may have to be cut down and started over in order to develop straight-line trunks. That's because growers usually shear and cut back shrubs while in production, so they will be fuller when they're set out for sale -- bushy.

Above, left: A witchhazel in bloom (*Hamamelis x media*) caught Steven's eye one March at the Holden Arboretum in Willoughby, Ohio (www.holdenarb.org). It provides fragrant flowers in February or March, spectacular fall color, clean branching and pest free foliage. It's a shrub but we see it as a perfect small tree for an east- or north facing courtyard. Above, right: *Heptacodium miconioides* is seven son "shrub" but at 20' tall makes a great September blooming, fragrant "tree."

Expert Gardener Afield: Report from Boerner Botanical Gardens, Milwaukee

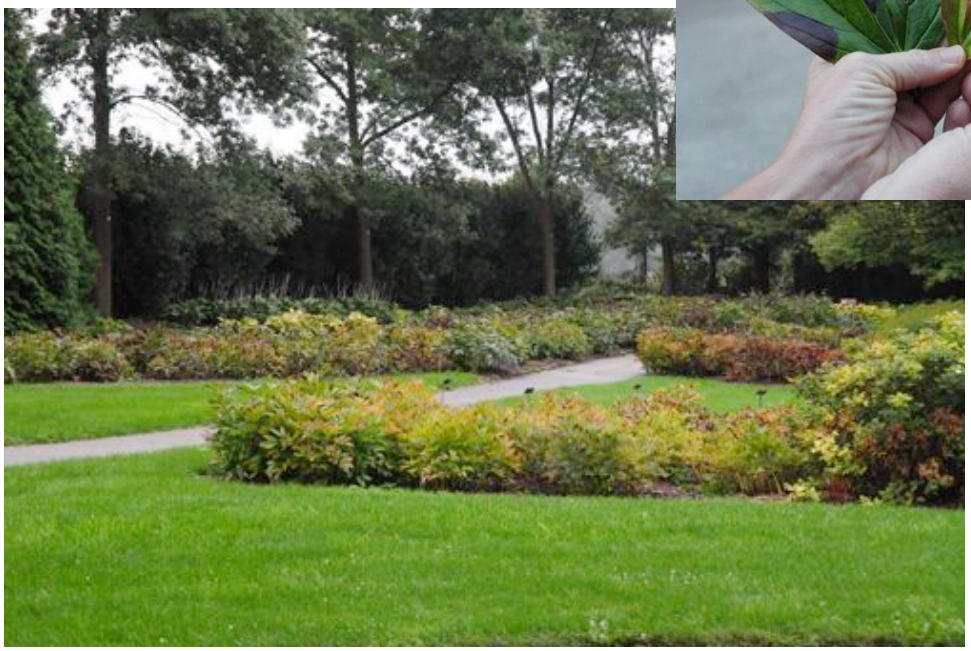
The world is full of great gardens and even the widest ranging traveler can't see them all. Here's a chance to **peek through expert eyes** at a place you may have overlooked or not yet reached.



Greetings from
Boerner Botanical Gardens in Milwaukee.

Its beauty speaks for itself (right). We stopped just to take a walk, and spent a long time in the peony collection (page 13). There are no flowers there in fall but still plenty to see, including which of

the many varieties have clean foliage (disease-free) at year end, and which ones develop nice fall color.



Right: Blotchy diseased leaf, one with reddish fall color, and one clean and green.

We're not talking about seeing one plant that somehow managed to keep looking good even when others in the bed went over to the splotchy dark side with botrytis, or turned gray with mildew. In this collection (above), each variety of peony is represented by a block of plants. When every plant in a whole block looks better than other types, that's a pretty good indication the trait's reliable in that variety. Right: If just one peony in a variety group has fall color, or disease, or is clean and green, that's interesting but not a sure statement about its whole group.

So, now on our list of disease resistant winners: 'Cheddar Surprise,' 'Avalon', and 'Lois Kelsey.' Top prize to 'Estafette,' not only clean of leaf but turning a great fall color. (As predicted by Murphy's Law, of those four 'Estafette' is the one for which, so far, we can't find a source!)

Janet & Steven

*Copy this URL to your browser: www.**boernerbotanicalgardens**.org

If you do not know the names of things, the knowledge of them is lost, too.
- Carl Linnaeus -

Green thumbs up to being the one advising, adding the occasional muscle, and taking pictures, rather than the one having to prepare a huge area for a single plant -- grass! When Jerry learned that the huge brown area in his yard (below) was a bent grass invasion, he declared war on it, killed the whole area with systemic herbicide, tilled it lightly and raked it so he can sow seed. Sure, Steven helped but he wasn't the one who had to steel himself to begin the job and resume it each day!

Green thumbs down to over-tilling. As the tines of a roto-tiller strike the bottom of their rotation, they beat on the soil. This pressure can create a hard pan and a perched water table. Too much churning can also destroy the soil's structure, so that it settles like flour, airless and lifeless. Use the tiller like you use a wire whisk in cooking, to fold materials into the soil. Then quit while the ingredients are still a bit lumpy and let natural forces finish the blending.

Jerry took Steven's advice, going over the dead sod just twice with the tiller. Then the two men raked the area level and trucked out the oversized debris. More physical work but the new lawn will be healthier for root space that isn't underlaid with hard pan.

lawn: From land (Danish), lawn (Welsh), lande (French)

"...my attempts at a lawn. Twice have we had the ground carefully dug up, and prepared; twice it has been sown with the best English seed... at considerable expense; ...the end of all the trouble has been that a strong nor'wester has blown away both seed and soil, leaving only the hard, un-dug ground. ...there are the croquet things, lying idle in the verandah... likely to remain unused for ever."
- from *A History of Gardening in New Zealand* by Bee Dawson -

This week in Janet's garden

Grow with me! This week:

Remake beds. When we have more than one plant to divide -- like a hardy hibiscus we've decided to make more of -- we don't lift one plant, divide, replace, and repeat. We remove all of the plants from an area, renew the soil to add as much compost as all the plant clumps we've just lifted, then make our divisions en masse and replant the whole area.

****

Continue the weed war. This week, *Houttuynia cordata* (chameleon plant or hootenanny plant) has been the target. Where this underground runner has infiltrated perennial crowns and slipped under shrubs, we lift those plants, clean their roots, then set them back in. It's fall, when we can do that to just about everything and the plants put up with it with good grace.

In doing this work, we thank goodness for small favors. For instance, that *Houttuynia* has such a thick, white root (below). It's hard to miss and very traceable. Now if only it wasn't a stinky thing, sour, rank, and so bothersome that when it mixed with mint, a perennial we normally love to weed, it even made the mint smell bad!

****

Divide perennials. But we'll tell you about *that* in the next issue because it takes so many pictures, more than we can fit here!

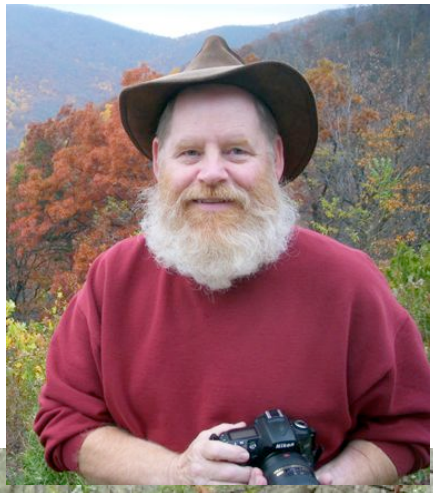
Who's Janet? Who's Steven?

Someone fascinated by the *process* of gardening. Janet Macunovich began gardening for others when she ran out of places to make new gardens at her own home. " I've learned a lot of wonderful things over 25 years of gardening, writing and teaching but the flexibility of the process and its never-ending newness is the best fact of all. I was hooked from the first time I worked in someone else's yard. That's when I saw that what we do to make a garden has to be modified for *every place*. Now 'my' gardens grow in several States and each one is unique, even those that are full of the same plants. The plants behave differently in each place. All of this makes it a delight and a privilege to work for others and to advise readers."

To Janet, every day's a learning day, every garden a new lesson: Here, drilling through hard pan with a power post hole digger proved simpler than double digging but had other costs in joint-jarring vibration and noise.

The voice behind the captions of many gardening books and articles. When publishers began asking him to not only supply photos for books, magazines, catalogs and calendars but suggest captions, Steven Nikkila's voice proved equal to his talented and experienced eye. His visual perspectives have delighted readers and students of gardening for a quarter century. His captioned advice and observations go back a dozen years. Both aspects are fresh and enduring.

Email questions to Janet or Steven at JMaxGarden@aol.com or call 248-681-7850.



Natural Gardening and the Wooded Lot

Saturday and Sunday, **October 2 and 3**
in Ortonville, Michigan, a two-day intensive workshop where Janet, Steven and designer Celia Ryker help you who are *Gardening a Wooded Lot*.
8:30 a.m. - 5 p.m. Saturday
8:30 a.m. - 4:30 p.m. Sunday
at Hadley Hill Farm, 1344 South Hadley Road
in Ortonville, Michigan (between Detroit and Flint)

In this two-day intensive workshop Janet Macunovich, Steven Nikkila and designer Celia Ryker who specializes in natural landscapes and wildlife help you develop a wooded lot in ways that edit Nature without upsetting its balance. In the classroom as well as out on a wooded site you'll learn about native trees, shrubs, vines, and perennial wildflowers, their advantages and how best to use them in your own spaces. You'll consider legal, ethical and practical aspects of turning spaces below trees into garden.

The main topics are:
- Native Trees & Shrubs of Great Lakes Woods
- Working with Your Woods: Assessing, modifying and designing wooded spaces
- Woodland Wildflowers

Register by email or call to JMaxGarden@aol.com or 248-681-7850 for the full two-day workshop or a single day. Those who participate in both days of the workshop may also register to submit their wooded lot plan to the instructors for written review and suggestions.

Two-day Gardening a Wooded Lot workshop	$195.00
Two-day workshop plus workbook review	$245.00*
Saturday only (basics and woody plants)	$115.00
Sunday only (design steps and wildflowers)	$115.00

More coming in October and November. Save these dates and watch here or email JMaxGarden@aol.com for details:

Monday, October 4, 6:00 - 9:00 p.m. Janet's perspective on *Transplanting the Picture Perfect Garden*. At MSU Tollgate Farm and Education Center in Novi, Michigan.

Tuesday, October 5, Steven explains and illustrates how to improve your *Photography in the Garden*. At Four Seasons Garden Center, Oak Park, Michigan.

Thursday, October 7, 6:30 p.m. Janet steps you through the *Art of Fall Garden Clean-up*, at Olbrich Botanical Gardens in Madison, Wisconsin.

October 10-11, ***Garden By Janet*** creating a wildlife friendly, low care lakeside landscape in the Beaverton, Michigan area! A limited space, free workshop. Email or call for details. Dates may shift, depending on weather. (More about *Garden By Janet* sessions at right and below.)

Tuesdays, October 12, October 26 and November 2, 6:00 to 9:00 p.m. Janet's three-part *How to of Basic Landscape Design*. At Four Seasons Garden Center in Oak Park, Michigan.

Thursday, October 14, 7:00 p.m. Janet talks about *Art in the Garden* at the Milford Garden Club meeting, Milford, Michigan.

Saturday, October 16, ***Garden By Janet*** at the Detroit Zoo. (More about *Garden By Janet* sessions at right and below.)

Monday, October 25, 6:00 p.m. Steven helps you achieve more *Winter Interest in the Garden*. At MSU Tollgate Farm and Education Center, Novi, Michigan.

Where we go to *Garden by Janet*
Sometimes we are asked "Can you come do one of your workshops in my garden?" Maybe! At these sessions:

- Someone pays for Janet's time, or she's on a site where she volunteers regularly. Although we love to share what we know, we need to eat and pay our bills.
- Our client knows our work well enough to allow us free rein, even to experiment.
- Our client allows strangers on site and trusts our supervision if they pitch in.
- We know the site and plant history enough to explain how that affects the work's "what" and "why."
- We've determined that the plants and site will serve as clear examples.
- We know from questions we've received that the work is of common interest.
- With rare exception, the site's visible from a public way so students can drive by to keep track of "what happens next."

About attending *Garden by Janet* sessions:

We gardeners are let-me-see, hands-on people. From time to time we offer *Garden by Janet* sessions to give you that kind of growing opportunity. You visit us in a garden to either watch or work with Janet. Generally, there is no charge and we're in one of two kinds of locations:

1) At the **gardens we tend through our business, Perennial Favorites:** Our clients know our enthusiasm for teaching. Some open their gardens to small groups who want to see and practice "how to." When the work we're scheduled to do may be of interest to you, we invite you in.

2) In the **Detroit Zoo, Adopt-A-Garden** program where we're 22-year veterans. Many people have worked with us there, some for a day and others for years. We have fun, we learn, we accomplish much. **To join Janet at the Zoo,** email mstgarden@yahoo.com with the subject line of your email "Help at zoo."

Invite Janet or Steven or their expert friends to your club or community.

Janet and Steven have been gardening professionally since 1984, but love sharing how-to almost as much as planting and designing. They started producing educational events in 1991, ran a gardening school from 1995 through 2008 and have always taught where invited. This has taken them all over the country and then some over the past 20 years.

garden professionally and, as instructors, have been collaborating on educational events for over 10 years. Janet and Steven teamed up with Hall and Ryker as kindred spirits who know their stuff in the garden and also have very effective ways to convey how-to.

This dynamic pair address many topics, drawing from a list of **100+ talks**. They also continue **to meet groups' needs** and expand their horizons by developing new material or "hybridizing" between existing presentations:

- **How-to lessons for a garden club**
- **Multi-part classes** for small groups, and
- **Hands-on workshops** at your site,
- Entertaining, information packed **talks.**

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

Time to garden your walls...

Steven's decorated many walls with great garden and Nature images. He can help you do the same with photos that capture the garden beauty you love, framed or on canvas.

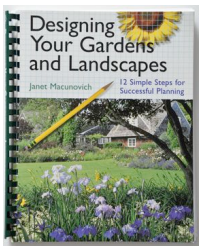
You can own any of Steven's images from *What's Coming Up**, or request your dream flower, type of scene or hue. His library includes tens of thousands of plants and natural images.

Describe your dream image or color to Steven at JMaxGarden@aol.com. He'll send you a photo sampler and price list.

Above*: Fall leaf collection from issue #64.

*Images in our newsletter are depicted in low- resolution to facilitate e-mail transmission. Steven's originals and art created from them are full resolution, with so much clear detail they are sharp even when printed on wall-size cloth banners.

You asked for our advice "on paper". We wrote and sell these books plus CDs:



Designing Your Gardens and Landscape

First published in 1990 as *Easy Garden Design*, a 150-page step-by-step recipe that's become a design classic. Janet developed, uses and has trained thousands of others to use this process. People say: "This is exactly the simple, clear approach I need!" This design process is applicable world-wide.

Soft cover, spiral bound. B&W illustrations by Janet. $19.00

Caring for Perennials

Janet's unique approach to perennial care how-to, the real-time story of one bed from early spring to season's end. The 180 engaging and fact-filled pages make you part of all Janet does and you might ever need to do in each task's appropriate season and sequence. Includes a chart of what to do, when for 70 top perennials. Advice in this book is applicable in all of temperate U.S. and Canada. The perennial chart includes a key to adapt its timing for far southern or northern edges of that range.

Soft cover book. Color illustrations by Steven Nikkila. $20.00

Asking About Asters CD.

A digital library of six years of Janet's work: weekly columns, newsletters and over 200 extra Q&A letters to individual gardeners. 1,681 questions answered about soil preparation, fertilizing, pruning, design, choosing plants, foiling bugs and much more. No repeated topics. Fully indexed; the entire collection can be searched from this one file.

1 CD in jewel case, Windows- and Mac compatible. $20.00

Potting Up Perennials CD.

A digital collection of 2009's *What's Coming Up*: 52 issues, over 750 pages with more than 150 articles, 500 images and 250 quick-look lists and reports. Includes a comprehensive index of this collection plus Janet's previously-released digital library, *Asking About Asters*. If you own both *Potting Up Perennials* and *Asking about Asters* you can search all the *What's Coming Up* newsletters plus six years of *Growing Concerns* columns and books from this new index.
Bonus on this CD: Steven Nikkila's Daydream Screen Saver, 74 of his most vivid works from gardens and nature.

1 CD in jewel case, Windows- and Mac compatible. $15.00

Janet's complete digital library New for 2010

Set of two CDs: *Asking About Asters* and *Potting Up Perennials*. $30.00

Janet and Steven give you: Trees. New for 2010*

A choice collection of Janet and Steven's advice for tree selection, planting and care. Each article made its debut in *Michigan Gardener* magazine and has been on hold since, awaiting completion of its fellows until this comprehensive compilation became possible. Topics include: Selecting trees; fall color; what's happening to ash trees; replacing a big tree; descriptions, lists and photos of great trees; why starting small is a good idea when planting; planting how-to, why's and why not's; staking, watering and fertilizing; mulching; rescuing a tree from the lawn; preventing construction damage; pruning to keep trees and shrubs small; removing suckers; detecting girdling roots; and dealing with maple tar spot and lecanium scale.

10" x 13" magazine, 48 pages. Color illustrations. $12.00

New for 2010****Janet and Steven give you: Landscape Ideas***.

Janet and Steven's favorite articles on landscape design and renovation: Designing with foliage color; covering up after the bulb season; doubling up perennials for 3-season color; shady solutions; using usual plants in unusual ways; designing hypo-allergenic gardens; Murphy's Laws applied to gardens; renovation how-to; fragrant plants and designs; attracting wildlife; rockwork; invasive plants; discovering a site's hidden assets; using herbs in a landscape; and how to cheat to improve a garden quickly. These articles appeared first in *Michigan Gardener* magazine individually between 1999 and 2010. Now they're collected in this set for your design library.

10" x 13" magazine, 48 pages. Color illustrations. $12.00

Janet and Steven give you: Garden Care. New for 2010*

Vital how-to for tending a garden, from Janet and Steven's favorite articles on: bed preparation; soil testing; making a weed-free bed; spring start-up; improving hard-packed soil; fertilizing; watering; cutting back and deadheading; repairing irrigation; drought-tolerant plants; sharpening tools; tweaking in summer; staking; and the art of fall garden clean up. Items in this collection were selected from among Janet and Steven's ten years of *Michigan Gardener* articles. Each made its debut in that magazine, waited for its companion pieces and now they all join your library in this more durable and comprehensive form.

10" x 13" magazine, 48 pages. Color illustrations. $12.00

Janet and Steven give you: Trees, Landscape Ideas and Garden Care New for 2010*

Set of three 10" x 13" magazines, 48 pages each. $30.00

*For a look inside, email JMaxGarden@aol.com with the subject line "Magazine peek."

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