

What's Coming Up:

Janet Macunovich and Steven Nikkila answer your growing concerns
Issue #152, August 3, 2011

What is it that every gardener wants?
That thing he or she can't grow! In continental zone 5 we swoon over dove tree (zone 7 *Davidia involucrata* See pages 1 - 4). Meanwhile, there's Aidean Vaughan at Larchwood B&B in Pearson's Bridge, County Cork, whose summer-cool, winter-mild zone 8 (garden at right). He *can* grow dove tree, but pines for eastern North America's flowering dogwood for its great fall color! The situation may be more cruel on Aidean's end than ours. Dove tree would probably just die in our garden. In Ireland's mild climate, the dogwood would grow but wouldn't develop fall color.



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There is much here about Imprelis: The herbicide that usurped this issue. Pp. 5-11. We resent having to give it so much space but we all need to know about this.

Love that dove tree!

Dear Janet & Steven, would you take a look at... *Davidia involucrata* 'Sonoma', the dove tree? I am wondering if you have seen a specimen of this tree in Michigan. I would like to see one in full bloom before I order it.

In 1995, I saw a huge tree that looked exactly like this... on the corner of White Lake and Dixie Highway (in Clarkston, Michigan). A couple of months (years?) later it was gone (taken down)... I was very disappointed that it was destroyed. - L.H. -

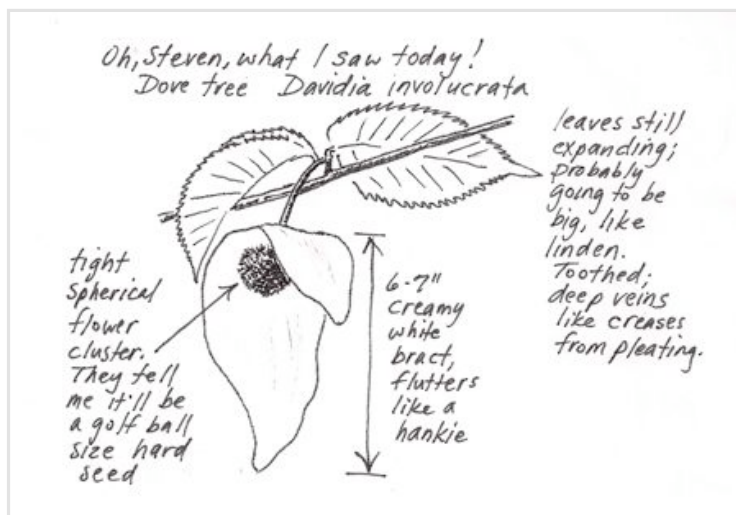
Janet saw **dove tree** in bloom when she visited Ireland in 1996. She checked into planting one at the time, driven by the feeling Michael Dirr described in his book, *Manual of Woody Landscape Plants*, "when seen in full flower there is an insatiable urge to secure a (*Davidia involucrata*) for one's own garden."

Unfortunately, we can't point you to a big dove tree in your/our neck of the woods, or even offer you hope of finding a small one. Most authorities say that *Davidia involucrata* its **unlikely to survive to maturity** -- blooming state -- **in zone 5**. Given that the tree's been in cultivation in the U.S. since 1904, engendering that "insatiable urge" in six generations of gardeners, we think that if it could grow in zone 5, we'd see more of it. Another thing noted by those who've tried pushing this particular hardiness envelope (the late great Donald Wyman is one) is that a dove tree on the edge in terms of cold is likely to lose its flower buds over winter. That tree could be leafy, but flowerless.

Which is what dove tree owners see in zone 7 and warm-zone 6, over half the time. This is one of those species that tends to take a long time to bloom and then it's an alternate bloomer -- **flowers well only every other year** or so. Therein lies the appeal of variety 'Sonoma,' which can be relied upon to bloom earlier, after just a few years in the ground.

However, let us know what happens if you plant a dove tree, because what you've just read is **based not on first hand experience** but on the research we did back when Janet first met the plant, reinforced by a recent conversation with Ray Prag of the great mail order nursery **Forestfarm** (forestfarm.com see page 4). Ray and wife Peg sell dove trees, seed-grown and sometimes grafted 'Sonoma.' The Prags, too, would like to know if one of their trees thrives in zone 5.

What **about the tree you saw**? We can't say. Maybe it was *Davidia vilmoriniana*, which is either a variety or **close relative, similar in appearance** and said to be hardy to sheltered places in zone 5. (We wouldn't use "sheltered" to describe the intersection you name, but we've seen stranger quirks of microclimate!) In that case, we're surprised we never noticed it, right there on one of regular travel paths. **Perhaps it was a linden tree** (one of the *Tilia* species), catching your eye in a particularly floriferous year. Lindens are big trees, have leaves similar to the dove tree and in June they sport showy, cream colored bracts next to each flower cluster. Their 4-inch dangles (pictured on page 3) are just over half the size of dove tree bracts but when they're all a-flutter they can catch the eye of the 45 mph gardener and might fool someone whose only acquaintance with a dove tree is a floral close-up.



Janet's only recently, grudgingly, become a photographer. She's preferred other ways to capture the moment, such as to look, point Steven, and keep moving. She also might draw sketches or make notes. Those who visited Ireland with Janet might recognize this illustration from the journal notes she copied out to the company. (If you're one of that troupe and remember *where* that tree was, please let her know. The sketch was not included with notes made at a particular garden but in the last section of the journal, in the pages titled "Lots of loose ends.")

In the end, your **description of it as a huge tree makes us favor the linden tree theory**. Dove trees have the genes to hit 60 feet in the wild but don't usually realize that potential in a landscape. Crabapple size is more common -- 20 to 30 feet. That's what we'd expect from them in Clarkston, Michigan or any place else so unlike *Davidia's* Chinese forest home.



Above: Each flower bud cluster on the European littleleaf linden (*Tilia cordata*) is accompanied by a dangling bract that will whiten and enlarge as the flowers open. American basswood (*Tilia americana*) flowers are the same, but its bracts may be twice as long. In a year when a linden or basswood blooms heavily, they make quite a show.

Oregon grower Ray Prag has a secret *Davidia* seed source. Perhaps it's even this tree (right), from Oregon State's image gallery. Copy this URL to your browser to see it in better resolution; or set your search engine to "images" and type in *Davidia involucrata*.
<http://oregonstate.edu/dept/ldplants/dain1.htm>



Thank goodness for small favors

Many plants are smaller in cultivation than in the wild. We who choose to grow them can rarely duplicate what nature offers them "at home." This is not always a bad thing:

Colorado spruce (*Picea pungens*) 30-60 feet, vs. over 100 feet in the wild
 Dawn redwood (*Metasequoia glyptostroboides*) 70-90 feet, vs. 120 feet
 Eastern white pine (*Pinus strobus*), 50-80 feet, vs. 150 feet
 Fringe tree (*Chionanthus virginicus*) 10-15 feet, vs. 25- 30 feet
 Little leaf linden (*Tilia cordata*), 60 feet vs. 90 feet
 Serviceberry (*Amelanchier*) 20-25 feet, vs. 40 feet



Once you start thinking "oddball" plants are worth growing, the doors just open... the list of 'must haves' keeps getting bigger.

Tony Reznicek, *Why I Grow the Plants I Do*

Dove tree: Example of why some great beauties never hit the big time

We asked owner/grower Ray Prag at Forestfarm* about growing dove tree (*Davidia involucrata*, also called ghost tree or handkerchief tree). We also discussed why we see so few of these trees, which are pretty noticeable in May when they're in bloom and a-flutter with big, white wing-shaped bracts. Here are some snippets from that conversation:

"*Davidia* is a fairly popular tree, we sell a good number of them. We don't ...hear much (from buyers) about how they do but we only list them to zone 6. I wouldn't say they're a zone 5 plant. Now, (the species *Davidia*) *vilmoriniana*, that may be another thing, I don't know."

"They've been around a long time but they're difficult to grow. The seed, it just doesn't germinate readily. So, sure, you can graft 'Sonoma,' but (you need something to graft them to). If you have no seedlings as understock, that limits how many you can produce."

"...we use a band saw to take the edge of the seed coat off, to let air reach the embryo, and that helps, but we still don't get great germination. We've learned to keep the seed in the works -- we don't throw it out if it doesn't sprout that first year. Some will germinate the second year, a few more the third and so on."

"(Another limiter is that) there aren't a lot of seed sources out there. If you know of a tree, the seed is valuable. I have my secret tree... in fact, three trees close together... (which is good so that seed is more likely to be fertile). I'm not telling where it is -- that's where I collect. The seed is interesting, golf ball sized, a little bigger even... and it hangs on. I collect in, oh about February, and even then about half the seed is still hanging on the tree. I take a long pole and try to knock it down."

"We do have a good stock of one gallon plants left, right now."

*Forestfarm has been a favorite source for us for 20 years; www.forestfarm.com

When money does grow on trees

Hey, Steven!

What now, Janet?

Remember what Mike Dirr said, that day when we chased him around the Arnold Arb during one of his sabbaticals, trying to get him to agree to come to Michigan to do a talk? When he told us about good money to be made for collecting some seed?

Yeah, I remember.

Well, *Davidia*'s probably one of those seeds! So, how about if we hear from one of our readers that they have a fruiting dove tree, we keep the location quiet in case they might let us in on the gold mine?

Oh, gentle gardener?

Every species of plant has one or more mechanisms for delaying germination... Without such mechanism, seeds would germinate in the capsule or fruit and never be dispersed...

Impervious seed coats... operates by excluding water or oxygen or both... a hole through the seed coat produces a dramatic effect... held against a grinding wheel until the interior of the seed just shows...

Alternatively... filed or sawed... held in pliers or tweezers and ground against sandpaper or a file.

To plant a seed is a noble deed.

- Norman C. Deno, in

Seed Germination Theory and Practice

New herbicide Imprelis: Spray a little, kill a lot

Do you have a name or location to contact where we could get our **pine tree** looked at? The west side of the tree has many branches that are **turning brown** and we've never had that before. Some years we would have a few, but never this many. Hopefully, the tree can be saved as it is over 50 years old and beautiful. - R.K. (August 1) -

You can **take a branch** which has both damage and live growth **to the Extension**. Take a photo of the whole tree and its situation in the yard, too. Expect to pay a fee. You can take that sample and photos to a garden center's diagnostic desk. You can call an arborist to look at the tree on-site. An **on-site evaluation is best**. The International Society of Arboriculture lists its members and helps you find them, at www.isa-arbor.com

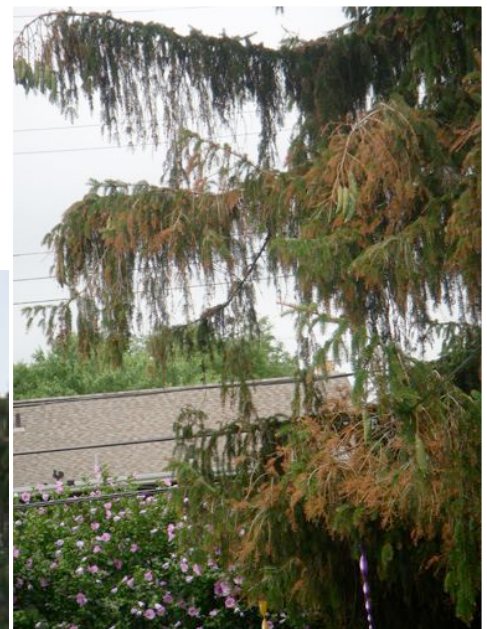
Austrian, Scots and even mugo **pin**es in our area had a bad year

with the fungus *Diplodia*, which infects and kills new needles. However, diseases and insects are just one possible category of trouble. There is **also an environmental impact** category -- abiotic damage. For instance, a tree may be damaged by herbicide. Right now, a new lawn weed killer, Imprelis, has been implicated in damage and death all over the country. Pine- and spruce losses were among the first to be noticed. If your tree's dead parts are all on one side, facing a lawn where a herbicide was used, this may be an issue.

If herbicide damage is involved, there is little to do except wait and see what the tree does next. If the die-back ceases and new growth begins, support that with steady watering and applications of organic slow release fertilizer. In a year or two the tree may grow past the damage. Avoid using pesticides in a tree's root zone. In many cases a big tree's root zone may cover an entire property.



Note: R.K.'s pine is a Norway spruce. Not uncommon. Many people call all evergreens "pine."



Herbicide damage might be called the "What the...?!" problem. You notice a plant because there is brown one day you didn't see before. You look closer and see more. Over time, the damage progresses.

Herbicide damage is probably the cause of this Norway spruce's trouble. If the new lawn weed killer, Imprelis, is involved it is possible that even a tree this large will die completely.

Step by step so far in the Imprelis over-kill case

October, 2010: DuPont herbicide Imprelis (active ingredient aminocyclopyrachlor) gets **EPA conditional approval** for use in killing broadleaf weeds in lawns. Imprelis is available only to those licensed to apply pesticide. Conditional approval means the product has been judged to be good but some of the safety data is not yet in.

November, 2010: People begin seeing **tree deaths**. This late in the growing season, evergreen deaths are most apparent. Experts look into the possibility that a new, aggressive disease of evergreens is involved.

Winter, 2010-2011: Landscape professionals compare notes on Imprelis' effectiveness. Many are **impressed with its effectiveness** on weeds that have been difficult to control with other products.

<http://www.lawnandlandscape.com/ll-080411-dupont-suspends-imprelis.aspx>

May, 2011: Extension hotlines, garden center diagnostic stations and lawn care companies field **more reports of tree deaths. The list of affected species expands** from pine and spruce to include burning bush, crabapple, dawn redwood, forsythia, maple, poplar, viburnum, willow, and many others. Damage is variable and not universal -- on some properties no effects are seen, in other locations some plants are affected while others are not. However, a link between plant deaths and nearby herbicide applications becomes apparent.

May 25, 2011: The U.S. Composting Council (a trade- and professional organization dedicated to the development, education and promotion of the composting industry) points out Imprelis label information, warning operators of **composting facilities to avoid** putting grass clips treated with Imprelis into compost piles. Other organizations issue similar warnings to gardeners. Imprelis does not break down in normal composting so its residue may remain in finished compost and affect plants in the gardens where that compost is used.

<http://compostingcouncil.org/?news=new-herbicide-threatens-to-contaminate-compost/>

<http://www.motherearthnews.com/grow-it/imprelis-killer-compost-zb0z11zrog.aspx>

June, 2011: DuPont writes to its landscape customers, suggesting that the problem is one of application methods -- improper mixing, synergistic effects from being combined with other herbicides, or applications too close to trees' root zones. Landscape maintenance companies disagree. Many report hundreds of plants killed or badly damaged. A **New York Times article** quotes an Adrian, Michigan landscape care company service manager, "We're seeing some trees doing O.K., with just the tips getting brown, and others are completely dead and it looks like someone took a flamethrower to them."

How can I tell what's weed-killer injury?

See pages 7 - 11

What if I lost a big tree?

See page 12

From that New York Times report:

Imprelis went through about 400 trials, including tests on conifers, and performed without problems, according to experts at DuPont...

Even if the product is eventually proved to be a tree killer, it is considered unlikely that the E.P.A. will ban it, experts said. The agency would probably work with DuPont to change the herbicide's labeling or to mandate larger buffer zones...

Imprelis is not approved for use in New York and California because both states have separate review procedures for such products. New York State officials say they have told DuPont that it has detected two problems: the herbicide does not bind with soil, and it leaches into groundwater. The state has told DuPont it will therefore not allow Imprelis to be sold unless the company provides evidence to the contrary.

California officials say they are still reviewing the product.

<http://www.nytimes.com/2011/07/15/science/earth/15herbicide.html?pagewanted=all>

June to August, 2011: Throughout the U.S., University **Extension services issue bulletins** describing the situation, damage symptoms and plants known to be affected. Many include the observation that damage appears to be from root uptake of Imprelis rather than any spray drift or volatilization from herbicide to leaf.

http://news.msue.msu.edu/uploads/files/122/Imprelis%20homeowner%20factsheet_Bert%20Cregg.pdf

<http://www.ppd.l.purdue.edu/PPDL/hot11/6-10.html>

August 5, 2011: Announcement from **DuPont -- will suspend sales of Imprelis** and will soon be conducting a return and refund program. The announcement **includes an apology**, "We sincerely regret any tree injuries that Imprelis may have caused, and will work with you and all of our customers to promptly and fairly resolve problems associated with our product."

<http://www.lawnandlandscape.com/ll-080411-dupont-suspends-imprelis.aspx>

Recognizing herbicide damage

Non-target plant deaths are not unusual where weed killers are used. Some plant species are particularly susceptible, and human error comes into play in the product's mixing, combining or broadcasting. Sadly, we've seen many fine plants damaged or killed during our 30 years' watch.

In most cases, the damage **can't be reversed** but if we can recognize the cause we may prevent repetition. To do it, cultivate an awareness of pesticide use. Read the label of anything you apply. Know what contractors and neighbors are applying and when -- don't be shy in asking for advance notice, names of pesticides and details of any application.

Then, **watch for:**

- Sudden discoloration
- Distorted new growth
- Wilting and stunting, especially adjacent to and downwind of pesticide application areas.

From the Imprelis label: What it does, & symptoms ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Surface water advisory:

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of aminocyclopyrachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Groundwater advisory:

Aminocyclopyrachlor has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable...

IMPRELIS™ herbicide is quickly taken up by the leaves, stems and roots of plants... **The Effects**... may be seen on weeds from within a few hours to a few days after application. The most noticeable symptom is a bending and twisting of stems and leaves. Other advanced symptoms include severe necrosis, stem thickening, growth stunting, leaf crinkling, calloused stems and leaf veins, leaf-cupping, and enlarged roots. Complete death ...may require four to six weeks.

This product can affect susceptible broadleaf plants directly through application to the foliage, stems and trunks as well as indirectly by root uptake from treated soils. Do not apply this product directly to, or allow spray drift to come in contact with, ornamental groundcovers, foliage plants, flowers, trees, shrubs, nearby crop plants or other desirable plants; or to the soil where potentially sensitive plants will be planted during the same season. Do not exceed specified application rates... particular care must be taken within the dripline of trees and shrubs...

To read the complete Imprelis label at DuPont's site:

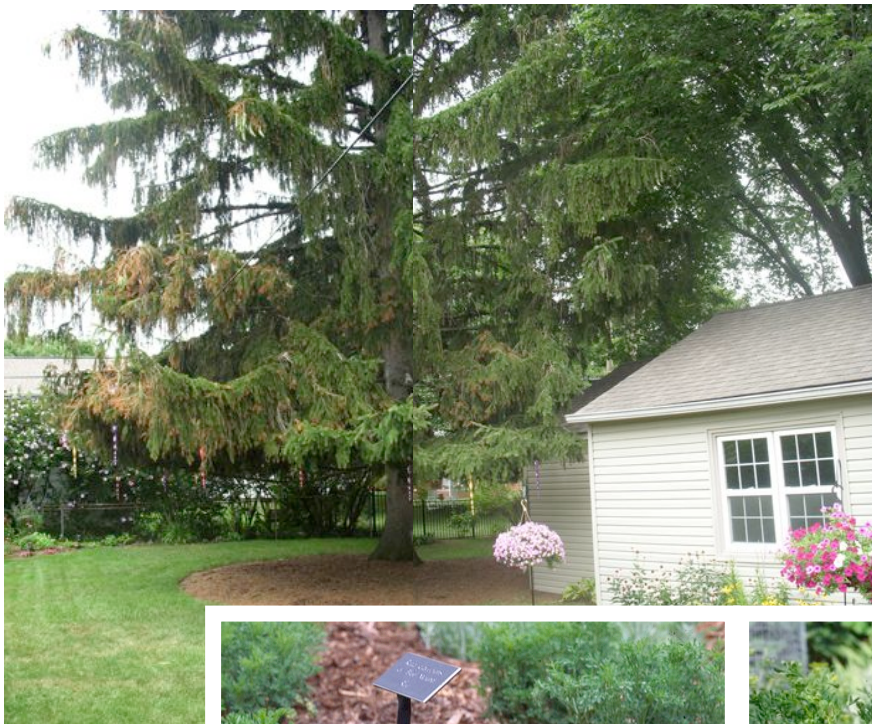
http://www2.dupont.com/Professional_Products/en_US/assets/downloads/pdfs/H65717.pdf

Be aware that **many chemicals** designed to be absorbed by the leaf can and do move into plant root systems. In some cases this **can cause damage**. This can happen *even with "safe" products such as glyphosate (RoundUp) and trifluralin (in Preen and other pre-emergent weed killers).*

Learn respect for all pesticides, not just weed killers. We've seen plants large and small, woody and herbaceous, killed or seriously injured by fungicides and insecticides, too. On the next four pages are **some examples we hope will help you learn to see herbicide damage**.

July, 1999: At an outdoor pest management session with Dr. Dave Roberts:

Stand back, look at the whole plant and the site. Does it affect just one part of the plant? Then learn some history. What was done or happened there? It could be anything, an extra-hot BBQ parked underneath, a gasoline spill, pesticide application...



Left: On page 5, R.K. gave us important facts - the tree had trouble on one side. See that the part over the lawn is browning, but not the portion over the garage.

History is everything: With a site, weather, a particular plant. It solves mysteries. And it's why, when others say, "You can't do that!" you can know with deepest certainty that you can.

- Janet -

Right: In May, two rue plants (*Ruta graveolens*) are equals. Far right: A month later, one is paler, shorter, thinner



and has dieback (arrow). What happened? Two weeks after the first photo was taken, weedkiller was applied to the lawn. The rue closest to the turf caught some drifting herbicide. We cut off the worst damage and hoped it would recover. A year later, it remained weaker than its companion but we judged it to be still improving.

More... recognizing herbicide damage

August, 2010: In an e-xchange with fellow pro gardener Gail Morrell:

Hi Janet. Had a great day... It still surprises me when I figure stuff like this out. ...(first, a call about myrtle) dying because it wasn't getting enough water. When I got there I saw the perfect circle of myrtle directly under the

Amelanchier was fried. The ladies mantle under another *Amelanchier* was burned. On closer inspection I noticed a yellow dust-like material and some probe holes. ...the trees had been treated (with a systemic pesticide) and it has done a number on the plants below...

...(another) was a lawn browning out. When I got there I noticed about 12-18 inches of grass along the paver drive was very brown. I thought... they had done something to the drive, they had not. The lawn spray guy was a little heavy handed with the crab grass spray!



Above: We dislike edging done with herbicide, if only because a dying-grass edge (a) is an unsuitable outline for an area meant to be beautiful. Yet we understand budget restrictions, and that some gardens can't afford to pay the labor for manual edging. So, we watch it done and learn things, such as daylilies are at least somewhat resistant to Roundup. The gardener must have lifted the spray wand as s/he turned that corner, so the plants there caught some of the spray. The *Dianthus* (c) died. The daylily clump (b) in that line paled, but survived.

June, 1995: Walking and talking with the horticulturist of a botanical garden:

Janet: Huh! Why is that one rectangular section inside that pachysandra bed so yellow?

B: Oh, that's where there used to be an annual bed. That part (of this new big pachysandra bed) was treated with pre-emergent for years. That's still residual effect.

More... recognizing herbicide damage

June, 2002: In conversation with a new client as we walked the property:

Janet: You use pre-emergent in the garden?

C: Yes. Why do you ask?

Janet: I was just wondering about the discolored myrtle and pachysandra in the terraces below the perennial garden. See how there's a ripple of yellow foliage along the edge, like the pattern the top edge of a wave makes on the beach?

C: I do. What's that got to do with Preen?

Janet: You may be putting it on too heavily, or maybe after you put it on it's being washed down to that bed.

C: It did pour! But Preen only stops seeds from sprouting.

Janet: No, it's a herbicide, and it can cause that damage.

May, 1995: In discussion with students during a tree I.D. trip:

L: It's a gold foliage type of maple? The other side reverted to all green?

Steven: That's not supposed to be gold. It's trouble, it's chlorosis.

L: So why is only part of the tree like that?

Steven: Well, take a look at where the tree is. Then, where the yellow is.

L: Tree's at one end of a planting island. The branches over the island are yellow. Over the cars, it's fine.

Steven: So what do you suppose happens in the island, on the side of the tree that's yellow, that doesn't happen in the parking lot? Look at those dandelions...

L: Weedkiller? You mean it can do that to the tree?!

Steven: Yes, Roundup can. So can 2,4D. Even treflan.



Upper image: This rock rose (*Helianthemum*; blue arrow) suddenly turned so brown it blended with the mulch. Why? It was about two inches closer to the bed edge than its fellows. We diagnosed herbicide damage from the plant's position near the edge, the timing -- following the herbicide application -- and that the dead branches and leaves (lower image) had no breaks, leaf spots or chews that could account for their condition. In the every-cloud-has-an-ironic lining category, notice that violets survived (upper image, green arrow).

August, 2011: From a presentation by one of the top perennial growers in the country:

Look at what's happening with hostas. We've seen this a lot, at the end of the row of hostas, where we turn and go back up the row and (the pre-emergent weedkiller) Surflan can get laid down a little heavy. Some of those plants tend to mutate. We get tetraploid hostas -- double the chromosomes, thicker leaves, bigger flowers. So we said to the guy who does our tissue culture, how about if we try treating some of the tissue culture hostas with this and see what we get?

August, 2011: From a long-running e-xchange with pro gardener Linda Sullivan:

(About the peony black-leaf issue) ...One more piece of sleuthing - it never stops! We already knew the water to the gardens is pumped from the property's large pond... However, I've just this week learned that the pond is treated every year with a chemical to stop algae (probably caused by lawn fertilizer run-off!!). Soooo - I'm wondering if this is contributing to our problem, especially as very gradually over the years the rose gardens nearby have become less and less robust?

Heroes of horticulture

Simply summarizing this sad situation has taken us days. Yet even as our heads spin we see one thing very clearly: What a great service we have been given, once again, by our **Extension and horticultural associations**.

Some of the first reports of dead and damaged pines came from members of the American Conifer Society (ACS). Those individuals are well connected to other serious collectors and also to professional growers and academics. They not only spread the word quickly but knew it was important to bring the problem to the Extension. Thus vast networks were quickly engaged in the search for an answer.

In this case, Iowa State University and Michigan State University Extensions' staff played a big role in sorting pieces of the puzzle and letting the public know the score.

If you appreciate these efforts as we do, let your Extension and hort association contacts know!

On the grass is beneath our notice?

In the course of our design and maintenance work, we gather information about the history and routine care on a site. Some of our questions are, "What pest control measures have you taken this year? Any chemical controls? **Do you apply any pesticides?**"

Frequently, we are told "Nothing" and "No, we don't use any of that." Yet we often **learn later that herbicide is applied regularly on the lawn**. No conscious deception is involved, just oversight.

Perhaps the problem is that others do not consider weeds to be a pest, or herbicide to be a pesticide -- we should reword our initial questions. Yet we think we may keep hearing "no" only to learn "yes," because the turf care industry has done a very good job of making **weed control products seem both essential and innocuous**. "Weed and feed," "weed control" and "stops weeds" are so much friendlier than herbicide, weed killer, and pre-emergent weed killer. **Yet they are killers**.

Of (golf) course *not*!

You may be surprised to learn that weed killers, although essential tools of a greenskeeper, are **not applied by routine or all over a golf course**. They're expensive. Their use can attach unwelcome strings, such as special storage requirements, user certification costs, advisory postings, no-contact periods and re-entry intervals. Also, health and safety issues loom large to those who face everyday handling of such products.

Next time you play, ask the staff about greens care. You will almost certainly hear mostly about proper cutting, aeration, fertilizing, monitoring for problem hot spots and how healthy lawn has few problems. You may have to press for weed control information, only to receive a shrug and a, "Sure, when we have to, hear and there. But if we need it, then we also need to look at why the turf density's fallen off. Plus that stuff can be tough on the greens..."

Words to the wise turf-tender

Crowd out weeds: Mow high, aerate regularly. Use organic, slow release fertilizer to build the soil as well as provide nutrients.

Use herbicide only where you have a weed problem that can't be addressed any other way. If your lawn is in good shape except for one section, treat only that section.

Protect non-target plants from herbicide. Spread weed killer only on days and times when there is no wind.

Read the entire label of any pesticide you use. Find out in advance what pesticides your landscape or lawn care company will be using and check it out on-line.

Encourage conversation about pesticide use among your neighbors, so people will feel free to discuss what they plan, do and see.

What if the tree dies? Value of a tree

If you lose a tree in some way that involves insurance claims or legal proceedings, a certified arborist* can make an evaluation of your tree's value. The arborist begins with tree species (Evergreen or deciduous? Desirable species? Trash tree?) and size to determine a base value, then adjusts that value based on factors such as location, health, potential lifespan.

As an example**, a tree that's in reasonably good condition that is 24" in diameter at 54" above ground might be valued at
\$2,500 (desirable deciduous species)
\$2,200 (evergreen)
\$1,975 (less desirable deciduous)

* The International Society of Arboriculture lists its certified members and helps you contact them. Check www.isa-arbor.org

**Our good friend, arborist extraordinaire Dan "DJ" Kurkowski taught us some simple formulas to develop examples like this for you. (We miss you, Dan. You were taken from us far too soon!)

Purple leaf beech,
70' and still a
baby.



*I think that I shall never see
A poem lovely as a tree...*
- Joyce Kilmer -

The *Invaluable* tree

A tree contributes to our lives in ways that are not easily assigned a dollar value:

- **Property value** increase of 4 to 20%.
- Increases **retail sales** by 12% for a business in its shade
- **Adds oxygen** to a yard each year, enough to fill five average propane tanks.
- May **cool a home** by 5 - 36°F in summer.
- May **reduce heating cost** and cooling costs by 5 to 30%.
- **Reduces dust** in its area by 10 to 40%.
- Can **reduce noise** in an area by 50%.
- By its presence and psychological effect, **reduces stress**, and speeds recovery from illness*.
- Encourages **good behavior**. Areas with trees have less graffiti and other vandalism.
- Reduces water treatment costs by intercepting rainwater and filtering what reaches storm drains.
- Reduces erosion.
- Shelters and feeds birds and small mammals. The average tree supports 2 to 15 different animal species.
- Perhaps best of all, it's alive: A tree's own value increases 5% per year.

*Studies have demonstrated that the sight and sound of greenery reduces heart rate, increases creative alpha brain waves, and can cut the average convalescent period by half a day.

*Happy the Man...
Whose trees in summer yield him Shade
In Winter Fire*
-Benjamin Franklin,
in Poor Richard's Almanack, 1744 -

Any fool can destroy trees, they cannot run away.
- John Muir -



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

Most of us had a **parent, neighbor or other veteran gardener** to guide us through our first attempts to grow. The **gardening advice they gave us** may include facts that took many years to develop and generations to confirm and tweak. We are very grateful to those people, and try to recognize those in our past as well as those around us now.

Last issue, we passed on this advice:

I'm doing the three sisters thing -- corn, bean and squash grown together. I think the Indians who figured out this combination probably didn't just let them alone to grow. I have to keep the beans trimmed a little so they don't shade out the corn leaves and make the stalk crooked.

- Phil Gigliotti -

Here's more!

Just read the newsletter #151, and I see you included my comments about growing corn along with beans and squash. Sorry I did not send you the photos sooner. To be honest I had taken pictures but was not satisfied with the results. I felt the 3 plants growing together was too much of a jungle. The green beans struggled to climb the wide leaves of the corn so I had to constantly coax the plants to climb, but they kept on falling off. The squash proceeded to cover everything and even tried to climb. Photo ending with 094 is the beginning (when I told you about it). When I could no longer manage the jungle, I tore off the squash. Things improved, but all this shade and struggle to climb delayed the production of beans. I will probably start eating the beans in another week (very late!!!).

Lessons learned so far:

- 1. Plant corn first*
- 2. Plant corn rows further apart*
- 3. Plant beans when corn is 1-2" tall*
- 4. Skip the squash*

Phil



Is there pass-along gardening wisdom in your hands now? Want to pay public homage to all those generations of effort? Tell us about it. We'll pass along all we can.

Men & melons are hard to know.

-Benjamin Franklin,
in Poor Richard's Almanack, 1733 -

Who's Janet? Who's Steven?

Horticultural photographer Steven Nikkila was a hobbyist with a great eye who went back to college for a photography degree once he ushered his own children into grade school. Needing an elective one semester and thinking to bring home good information for his wife's gardening business, he took a class in ornamental horticulture and found himself hooked. Soon the leaps and bounds he'd captured on film as his children grew had rivals in files of leaf and ground. He went on to earn a degree in horticulture, while illustrating his wife's books and lending a hand digging gardens. He calls it, "A great combination," and says, "I love this job almost as much as the best one I ever had -- raising my kids."



Janet's a lady who gets a lot of mileage out of a garden. That's how Macunovich was

once described by a client of her business, Perennial Favorites. "I love what you plant for me, Janet," she explained. "I think I get to know the plants pretty well. Then you come here with your stories about the plants and *why* something is growing a certain way. I love it, it's like you open up windows I didn't know were there." Janet brings the same depth and enthusiasm to books and articles she writes, classes she teaches and practical how-to materials she develops.

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

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

We go where we're invited! That's taken us all over the country and then some over the past 20 years. We address many topics, drawing from our list of **100+ talks**. We also continue **to meet groups' needs** and expand our horizons with new material and "hybrids" from our basic 100.

So, we're game for...

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

We can also connect you to one or a whole line-up of other experts who know how to explain how-to. So give us a **call or send an email** to make a date, request our list of classes and talks or get a referral.

JMaxGarden@aol.com or 248-681-7850. Our calendars fill about a year in advance for spring weekends, and six months ahead for most other times.



Steven Nikkila and Janet Macunovich (above, Janet leads a hands-on pruning workshop) have been digging, shooting and teaching how-to for 22 years. They began producing conferences in the '90s and ran a gardening school for 12 years, featuring expert instructors who knew their stuff in a garden as well as knowing how to get their messages across in front of a group.

The yellow coneflower we used as a donation telltale has turned all-blue. Thank you - we've paid the design and programming bills and will shortly be proofing and learning to operate all the component parts of the site.



You helped us pay for the expert help we need to insure that our soon-to-launch website will be clean, easy to use and secure. Now the project's back on our desks, and we pick up our labor of love to load and run the site. We plan to keep our site ad-free, so we will always accept donations. **Send donations**, check payable to Janet Macunovich, to 120 Lorberta, Waterford, MI 48328.

Saturday, August 13, 10:00 a.m. - noon, *Pruning Workshop*. Janet gives you indoor instructions and then hands-on direction in taming shrubs and trees in the landscape. Sponsored by the Detroit Garden Center at the **Belle Isle Nature Zoo, Detroit**. \$25. For more information or to register, contact the Detroit Garden Center at 313-259-6363 or detroitgardenctr@yahoo.com

Chances to *Garden by Janet and Steven* -- observe or try your hand. These sessions are free but require registration. Here's the what, where and when. See page 18 for more about the why and how of such sessions.

Friday, August 19, 9 a.m. - noon, *Garden by Janet & Steven* in Rochester Hills, Michigan. The objective this session is *pruning* to reduce the size of a crabapple. Come to observe or to pitch in with any work and learn by hands-on. This is a free, limited-size workshop. Call or email Janet & Steven to register; we'll provide you then with the address and directions. Provide a telephone number in your email or when you call. JMaxGarden@aol.com, 248-681-7850.

Friday, August 19, 6-8 p.m., *Garden by Janet & Steven* in Dearborn Heights, Michigan. The objective this session is *pruning* to reduce the size of a weeping white pine, star magnolia and other woody plants. Come to observe or to pitch in with any work and learn by hands-on. This is a free, limited-size workshop. Call or email Janet & Steven to register; we'll provide you then

with the address and directions. Provide a telephone number in your email or when you call. JMaxGarden@aol.com, 248-681-7850.

Saturday, August 20, 9-11 a.m. and noon - 2 p.m., *Garden by Janet & Steven* in the northwest Detroit metro area. The objective is *pruning* a Japanese maple to keep it small. Come to observe or to pitch in with any work and learn by hands-on. This is a free, limited-size workshop. Call or email Janet & Steven to register, and to learn the address. Provide a telephone number in your email or when you call. JMaxGarden@aol.com, 248-681-7850.

Monday, August 22, 8-10 a.m., *Garden by Janet & Steven* in West Bloomfield, Michigan. The objective this session is *pruning* a full size yew tree to maintain its size and natural appearance. Come to observe or to pitch in with any work and learn by hands-on. This is a free, limited-size workshop. Call or email Janet & Steven to register, and to learn the address. Provide a telephone number in your email or when you call. JMaxGarden@aol.com, 248-681-7850.

Friday, August 26, 9-11 a.m., *Garden by Janet & Steven* in Hartland, Michigan. The objectives this session is *laying out a garden* and determining what to do for a young tree that won't "take." Observe, or to pitch in with any work and learn by hands-on. This is a free, limited-size workshop. Call or email Janet & Steven to register, and to learn the address. Provide a telephone number in your email or when you call. JMaxGarden@aol.com, 248-681-7850.

Saturday, August 27, 8 - 11 a.m., *Garden by Janet & Steven* at the Detroit Zoo, Huntington Woods, MI, Woodward Avenue at I-696. Your chance to volunteer at the zoo in exchange for Janet's & Steven's hands-on instruction in perennial garden renovation, division and transplanting. For instructions how to join us, send an email to mstgarden@gmail.com with the subject line "I'll volunteer at the Zoo."

Thursday, September 29, 5:30 p.m., *Garden by Janet & Steven* in Macomb Township, Michigan, to diagnose and determine what to do for an ailing shade tree. Come to observe or to pitch in with any work and learn by hands-on. This is a free, limited-size workshop. Call or email Janet & Steven to register, and to learn the address. Provide a telephone number in your email or when you call. JMaxGarden@aol.com, 248-681-7850.

Friday, September 9, 9 a.m. - 3 p.m. *Propagation workshop*, presented by the Kent county Michigan State University Extension in **Grand Rapids, Michigan.** Janet shows you how to and gives you hands-on training for making more perennials. Contact Brenda at the Kent County Extension, 616-336-7734 or Brenda.Angelo@kentcountymi.gov. This is a limited space workshop so register soon.

Saturday, September 24, 9 a.m. - 4 p.m. *Fall Gardening Extravaganza*, presented by the Michigan State University Alpine Master Gardeners in **Gaylord, Michigan.** Janet and Steven guide you through *Visualizing Changes to a Garden or Landscape*, and then provide you with ideas for your own landscape makeover in *Trees and Shrubs for Small Spaces, Favorite Plants and Combinations, and Fabulous Foliage*. At the Otsego Club Resort and Conference Center. For more information call Dee Burau 989-732-2527 or obtain a registration packet at [http://www.otsego.org/amg/Trifold_idea_1d.1\[1\].pdf](http://www.otsego.org/amg/Trifold_idea_1d.1[1].pdf)

I so enjoyed your presentation. The visuals said it all. The handout will be a resource I will use each spring as help to make my garden the restful outdoor room/escape. I could have listened to you for hours. - Rita Socha -

The Garden by Janet & Steven series:

You and we are let-me-see, hands-on people. That's how we learn best. So from time to time we schedule *Garden by Janet & Steven* sessions and list them in this newsletter to afford you that kind of chance to grow. You visit us in a garden to either watch or work with us (below, this group put hands-on to move a tree). 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 understand 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. You can check out this program by coming in as my student on a temporary pass. **To join us at the Zoo,** email mstgarden@gmail.com with the subject line of your email "Help at zoo."



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 to your specifications.

You can purchase hard copies or high-resolution versions of any of Steven's images you see in *What's Coming Up*.* Or name a flower, type of scene or hue in mind you can request that dream. His library includes tens of thousands of plants and natural images. Email us at JMaxGarden@aol.com for details, to request a sampler or to place an order.

Prices for **Steven's garden art** vary with your wishes in format and size. Examples:

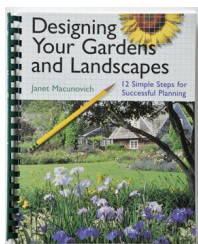
- **Matted, framed**, overall 11 x 15", \$48
- 36 x 48' no-fade **cloth tapestry**, \$215

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

*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 as wall-size cloth banners.



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



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Soft cover book. Text by Janet Macunovich. 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 one index.

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



Potting Up Perennials CD. New for 2011

Practical, beautiful answers about perennials and all kinds of flowers, trees, shrubs, design, pruning and much more is in this collection of 2009 & 2011's *What's Coming Up*. Includes 101 issues with over 1,700 pages, 1,600 articles and 2,400 images. Has a comprehensive index with how-to guide so you can search for any topic or detail in any of the 101 issues. 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. \$20.00

Janet & Steven's complete digital library New for 2011

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



Janet and Steven give you: Trees*

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

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 2011. Now they're collected in this set for your design library.

10" x 13" magazine, 48 pp. Color Ill.'s. \$12.00



Janet and Steven give you: Garden Care*

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 *

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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