What's Coming Up:

Janet Macunovich and Steven Nikkila answer your growing concerns Issue #173, February 12, 2012

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The rose's buds swell as the tip begins to grow, drawing water up into itself. Bud scales (arrow) that covered the bud against cold, pop open. Too early? We can't stop it! We can enjoy the beauty. Page 12.

And MORE at GardenAtoZ. Watch for the links!

Tell people you know: GardenAtoZ will help you grow!



- Nick Mendes -

have put all this great stuff in one site.

Look where our newsletter is going! Our new site is practical, colorful, easy to use and *free*. Find answers in *What's Up*, ask questions on the Forum. http://www.GardenAtoZ.com

Keep this project growing! If we've helped you save time, money or plants, return the favor now via your Sponsorship. Page 11.

Tell-a-friend contest continues. We need to grow, so **spread the word**.

• Ask friends to subscribe to our weekly email: http://www.gardenatoz.com/what%27s-up!/subscribe-to-what%27s-up/

- Have them include your name as they subscribe.
- Each referral earns one raffle ticket for you.
- On March 7, we'll draw a name and you may:

Win your choice of one of our best photos, framed or printed on cloth! See just some of your many choices at http://www.gardenatoz.com/market/browse-the-photo-galleries/

Passion won't sway gardener who grasps the scale of the problem

T.C.: My passion flower is covered with these... thousands of them! Do you know what it is?

J&S: Looks like a scale insect. We're checking for a particular name. Are they all over the stems, or concentrated anyplace?

T.C.: The little buggers are ALL OVER.

J&S: Looks like one of the *Ceroplastes* species of scale. We'll call it **barnacle wax scale** (*C. cirripediformis*) although it could be a close cousin called Florida wax scale (*C. floridensis*, also called citrus wax scale*). Differentiating between the two isn't critical right now since the immediate treatment is the same for both.

*http://insects.tamu.edu/fieldguide/aimg110.html http://insects.tamu.edu/extension/publications/epubs/eee 00023.cfm

These scales have been there a while, sucking on the stems. A scale afflicted plant shows the strain by paleness or losing leaves. Leaves or twigs may

have spots or smears of sticky scale excrement called **honeydew** (drop at arrow, below, left) which then grows dark from **sooty mold**. Notice early and you'll see the scales as red crawlers

or small white smears just beginning to get waxy. What you're seeing now are adults with significant wax protection.



As with all insects, the older the critter the harder it is to kill. However, a direct dose of rubbing alcohol can work. Use a cottontipped swab dipped in alcohol, or a rag.

You can even spray alcohol on the whole plant, but only if the plant's out of the bright light and you rinse it a few minutes afterward so it won't burn the foliage.





Follow up after a few days and then after another week or so, repeating the swab or spray where scales remain. Some always survive that were in tight crannies -- shielded by the plant -- or because they were not yet emerged from the sheltering egg.

T.C.: !!! The vine is 24 feet long...... I usually cut it back to 2 feet to over-winter inside.

J&S: Once it's cut to a couple of feet for winter, there's a lot less spraying and cleaning to do! Even during the growing season you could have **pruned to remove the worst infested stems**.



An option is to spray with a systemic insecticide. The plant absorbs that and then the insects ingest the poison as they chew or suck. Merit and Orthene are two examples, based on active ingredients imidacloprid and acephate, respectively.

Systemic insecticides are not very effective, however, on scales nearing maturity. Adults don't ingest enough to be killed but even if they do, eggs already in place under the dead scale's shell remain, protected.

T.C.: Thanks, but I will toss it.

J&S: Even so, follow up in late winter or early spring to derail a repeat performance.

The scales in this genus can host on a great many types of plants, woody and herbaceous, tropical and temperate.** Young scales are not

immobile like the waxy adults but can crawl off to live on adjacent plants including holly, *Euonymus*, *Schefflera*, *Aglaonema*, *Hibiscus*, citrus trees, *Artemisia*, banana, fig, English ivy, boxwood, apples, pears, cherries, peach, maples, magnolia and dozens more.

**Insects that Feed on Trees and Shrubs,
Warren Johnson and Howard Lyon, 1991

So be suspicious of any plant that was cozy with that infested passion vine. **Discard** those others, or **cut** them back and **clean** them well. Then watch carefully at the start of your next local scale season for sticky surfaces or pale leaves. Be ready to act earlier rather than later.

Indoors and in warm, no-freeze climates, be on guard for new wax scales in February. Watch for crawlers in mid- to late May in the garden (as far north as Ohio and New York where barnacle wax scale females Passion flower (*Passiflora incarnata*) should be leafy all over. (Below, healthy and fruiting). The vine at left dropped leaves all during its scale infestation. Investigate when the leaf fall *begins* and you may fend off the trouble.



survive winter outdoors and lay eggs in spring). In either case the date is variable depending on temperature. Watch for sticky honeydew or the tiny crawlers themselves. Use a soap spray, oil or other insecticide to kill these vulnerable young-uns. Over the next two to three weeks, repeat as suits your tactic, to kill later-emerging crawlers.

On a plant in a subtropical area or overwintered warm, wax scales can do this generational shift change more than once a year -- twice for barnacle wax scale, three times for Florida wax scale. More at GardenAtoZ: http://www.gardenatoz.com/what%27s-up!/what%27s-coming-up-this-week/passion-vine/other-scalessame-tales/

Growing endangered plants: Lofty goal, tall order

I would like to start planting endangered plants in my garden - want to do my part to take them off the endangered list. Is there a list that I can obtain that shows the most endangered? ...where can I find a reputable source for this plant material? - K.F. -

Government databases have lists of what's threatened, endangered or of special concern in your area. In the U.S., go to http://plants.usda.gov/threat.html and then click on a State or States. On that site, alter other categories on the page as you wish, to see only perennials or wetland plants, etc. In Canada, search the Internet for (your province name) government endangered

> species. As examples, links below connect you to Ontario and Saskatchewan lists.

http://www.mnr.gov.on.ca/en/Business/Species/2ColumnSubPage/276722.html http://www.environment.gov.sk.ca/wildspeciesatrisk

For seeds and plants, check with local native plant growers.* We know many such growers and think that throughout the industry you are unlikely to find more credible or caring people. They will know which of their offeringd are on special lists.

native plant producers (name of State or Province)

*Michigan Native Plant Producers: http://www.mnppa.org/ *EPA list of Illinois native growers: http://www.epa.gov/greenacres/nativeplants/il-resor.pdf *Others can be found by Internet search using terms such as

Plants and seeds may be tough to find. Special permission is required to collect protected plants or their seed, and such permits are more likely to be granted for a conservation project than for a commercial nursery's stock.

Growers might be able to sell listed plants because they began growing a species before it was declared threatened or endangered, and continue production using only that line of

nursery grown plants for seeds, cuttings or divisions. For instance, Wildtypes native plant nursery in Mason, Michigan produces the threatened species Geum triflorum -- prairie smoke or old man's whiskers -- in that way. Every one is descended from that seed collected long ago.

http://www.wildtvpeplants.com



PLANTS are now upd

Others can grow plants of species that are **locally endangered** or threatened because they buy seeds or **stock plants from areas where the species is not in trouble**. For instance, most garden centers sell purple coneflower (*Echinacea purpurea*, below), even in Michigan where that species

is way beyond endangered. The entire original population has probably been wiped out. Any wild plants or seed involved in production of those plants come from regions where the plant is still secure in the wild.

In that example, the purple coneflowers you buy do not have the genes that were particular to the endangered subset of that species. (See genotype on page 9.) There is some controversy about whether we may further endanger an at-risk population when we

grow plants of that species that are **not of the local genotype**. Garden plants or pollen that escapes to the wild may introduce "foreign" characteristics that don't suit local conditions or may further dilute an endangered gene pool.

It's a complex situation that may not resolve itself for a long time. Meanwhile, we'll keep promoting native species for gardens**, and hope conservationists work out ways to produce enough plants of endangered genotypes to repopulate wild areas. We hope that individuals who have property in natural areas will learn to identify natives so they can preserve and encourage the spread of at-risk plants where they are most likely to thrive. We'll also keep plugging for land use policies that preserve natural ecosystems and native species.

Threatened (T), Endangered (E) but Grown in Michigan

From 356 species listed by the USDA Plants Database, we extracted these which you may recognize from your garden or natural areas, or perhaps you included them in a wildflower meadow and natural woodland planting.

Allium schoenoprasum, wild chives T (threatened)
Artemisia ludoviciana, white sage T
Calamagrostis stricta, slimstem reedgrass T
Camassia scillioides, Atlantic camas T
Castanea dentata, American chestnut E (endangered)
Chasmanthium latifolium, Indian woodoats. northern sea oats T
Chelone obliqua, red turtlehead E
Dodecatheon meadia (Primula meadia),
shooting star, pride of Ohio E



Go native

Plants that are native to an area often have advantages over others, because they are adapted to the specific climate. They also provide the base of unique ecosystems, creating critical habitat and food for native insects, birds, amphibians, reptiles and mammals.



Echinacea purpurea, eastern purple coneflower PREX (presumed extirpated)

Ēryngium yuccifolium, rattlesnake master, button eryngo T *Filipendula rubra*, queen of the prairie (right) T

Hydrastis canadensis, goldenseal T

Lactuca floridana, woodland lettuce T

Liatris punctata, dotted blazing star PREX

Mertensia virginica, Virginia bluebells (below) T

Mimulus glabratus michiganensis, Mich. monkeyflower, E

Monarda didyma, scarlet beebalm PREX

Nelumbo lutea, American lotus T

Nuphar lutea pumila, yellow pond lily, E

Panax quinquefolius, American ginseng T

Phlox maculata, wild sweet William T

Polemonium reptans, Greek valerian, Jacob's ladder T

Polygonatum biflorum, smooth Solomon's seal PREX

Ruellia humilis, wild petunia T

Sanguisorba canadensis, Canadian burnet T

Sarracenia purpurea heterophylla, purple pitcherplant T

Silphium laciniatum, compassplant T

Silphium perfoliatum, cup plant T

Tanacetum bipinnatum huronense, Huron tansy T

several *Trillium* T (not *T. grandiflorum*)

T. undulatum, painted trillium É

Wisteria frutescens, American wisteria T

Zizia aptera, meadow zizia T

More at GardenAtoZ: <a href="http://www.gardenatoz.com/what%27s-up!/wh



From the University of Michigan Herbarium website you can check by county where a given plant is reported to be established. As an example, here's shooting star's reported distribution (it's *Dodecatheon meadia*, also known as *Primula meadia*)



http://michiganflora.net/species.aspx?id=2351

You can browse the Herbarium's site by plant genus, checking other species' maps, at http://michiganflora.net/browse.aspx - genus

It can be rare but not endangered, endangered without being particularly rare. Not just plants but ecosystems should be on the lists. - Janet -

A big continent, where plants fare differently across regions

Check the USDA site for States beyond your own and you may be surprised to see plants listed in one area that are common in another. In Michigan we see carpets of spring beauty (*Claytonia virginica*) in the woods, a species that is endangered in Massachusetts. Great blue lobelia (*L.* siphilitica) and culver's root (Veronicastrum virginicum) are not deemed to be in any trouble in the Great Lakes States but the first is endangered in Massachusetts, and the other threatened.

The office gardener cuts and shares a heart leaf vine

I have a plant in my office at work that is very happy and I am wondering how easy it would be to start cuttings to give away. It is an Epipremnum, Pothos. (I thought it was a Philodendron when I bought it, is there a difference?)

The plant is putting out long vines and I don't want it to develop into one of those office plants that take over the all shelves and eats the office. Is it share-able or should I just prune it and

> throw the cuttings away? Thanks quys, - J.C. -

It's eminently share-able. Stick any short bit of stem with one leaf into some sandy potting mix, and tent it with a sandwich baggie to **create a mini terrarium**. Keep it in decent light -- something many offices have

from fluorescent lights that shine from dawn long into

the night. It'll root and probably bust out of the tent on its own in a month or so. Or root cuttings in water. Move them into pots soon as you see roots, or just grow them on in water for years.

Plenty of people mix up members of Epipremnum and Philodendron. A standard green pothos is so similar in leaf and habit to heartleaf philodendron (*P. scandens*), and both like the same growing conditions -bright but not direct light, steady

moisture, good drainage. In practice, they are interchangeable. However, it's pothos that provides the gold leaf and variegated types people like.





Don't

transplant to

soil a cutting with a dense

water-grown

root system. For the "why"

What's Up at

GardenAtoZ.

and more,

check

com!

Perhaps we should say it can be shared but also cut and thrown away, since pothos is a prolific plant. The cuttingat left rooted in just 11 days. That's fast by any measure and all the more impressive because this cutting was placed in water in a cold location. The gardener who decides to root everything he or she cuts from a pothos may become a pariah, with fellow workers avoiding that cubicle rather than have more cuttings pressed upon them.

We confuse these two. Friends who specialize in interior plants have chuckled over this, and seem able to tell them apart at a distance. However, we did overhear, one time, "You need to feel the new leaf. Even then it's a relative thing. If it's glossier, it's pothos. If it's matte it's a

philodendron."

We look at the leaf stalk to make a stab at which is which. An *Epipremnum* petiole has a trough in it, while Philodendron leaf stalks are smooth and round in cross section. If they ever bloomed we'd see bigger differences, but we're not likely to ever see a bloom on either one. They fail to receive some trigger or condition they need to flower, outside their home tropic/subtropic environment.

Compare solid *Philodendron* petiole (below) to troughed *Epipremnum* petiole, right.



More at GardenAtoZ http://www.gardenatoz.com/what%27sup!/what%27s-coming-up-this-week/pothosand-philo/cuttings-root-in-water/

Alone in the Garden? Never! Our mentors are there to help us... curse?!

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 proves its worth in the number of times it comes to mind and to hand.



One such we treasure came from family friend whose influence began long ago. So far back that it's not her face Janet recalls as she repeats her words, but the hem of her apron and dress.

In answer to Janet's tearful identification of an offending plant as "That prickery one," Frances Kissinger poured tincture of witchhazel to soothe the irritated skin, while advising:

Now dear, learn the plants' names. That's bull thistle. It is always more powerful to curse it by name. Above: "Prickery" bull thistle.



What's Up 173 Page 8

Scrabbling in the garden, word play

We gardeners earn admiration when we display our garden's produce. Stir up more of the same by tossing nifty horticultural terms on the table during the next Scrabble game. For instance:

Extirpate: verb; EK stur payt; to wipe out; (Note: Extirpation can occur in just one portion of a species' range, while extinction is to be eliminated completely from the world.) When we alter environments in a region we may extirpate species that cannot adapt.

Genotype: noun; JEE noh typ; the genetic makeup of a living thing, passed from one generation to the next, used as a blueprint for building and maintaining a living creature. Within a plant species that occurs across a geographic area with diverse climate and features, there are almost certainly numerous distinct **genotypes** that are local specialists such as very cold resistant plants in the colder part of the range, later blooming plants where the season is longer, shorter plants in mountainous regions, individuals tolerant of flooding, etc.

Petiole: noun; PEH tee ohl; the stalk by which a leaf is attached to a stem; Call it a leafstalk or call it a petiole, same thing!

Stipule: noun; STiP yool; outgrowth from the sides or base of a leafstalk; *If you pluck an entire rose leaf, not just one leaflet of many, you will see a stipule at the base of the petiole.*



Aiming for Answers: Hit or Miss?

There are no sure bets in dealing with living things, but every situation we face helps us learn more possibilities -- especially when we share with each other what we've observed. So we're always glad to hear whether you used our suggestions, and what happened next.

Hit: Pursuing Magnolia in a big way

Do you happen to know a source for (that bigleaf magnolia you showed in issue #171) Magnolia macrophylla 'Whopper'? I have a perfect place for it. I appreciate the warning about the falling leaves in fall, it is the sort of thing we just don't think of in the excitement of seeing something new. – C.V. –

Glad to hear we're giving you practical information, happy to put you on the hunt, but sorry to say we have no source for that variety. There are so many plant species and varieties that no one can carry them all. As they go in and out of vogue, they also rotate out of production.

Keep an eye on the market through one of our favorite nursery databases, Minnesota Landscape Arboretum's http://plantinfo.umn.edu/ Not every nursery is included but oh so many are.

You might contact a grower to arrange a special grown-to-order tree. We've known folks who've done that. In that case, Gossler Farms and Greer Gardens (both listed in that database as bigleaf magnolia growers) would be who we'd approach, asking, "If you have a stock plant of 'Whopper', would you start one for me?"

More at GardenAtoZ! http://www.gardenatoz.com/what%27s-up!/aiming-for-answers-hit-or-miss/hit-a-big-magnolia/

Miss: Color dims when persistent fruit meets insistent animals

Thanks so much for including the "police lineup" of crabapple berries, their configurations, and identification (in issue #167)! Sometimes it is so hard to determine the variety when the berries are all you have. And by March, none of them will be there anyway, thanks to birds and deer browsing away. - B.M. -

Happy to do it. (Wow, where have six weeks gone?! Time's flown since that issue came out!)

And you are so right about the other admirers of these trees! We can plant crabapples with persistent fruit as color in a dreary winter landscape, and even see it some years. Yet most of the time it's gone by spring, to every hungry gut from goose to robin, deer and goat.



Tip cuttings: Growing on from what people are saying this week

So much goes on in email exchanges between newsletters! We wish we could include it all. Excerpts:



Mixed feelings about early signs of spring (Last week I) saw a DANDELION blooming! it was hugging the ground and the base of an exposed hillside, but nevertheless! At home we found winter aconite raising leaves and blossoms, not many and not open, but they are showing themselves. Iris reticulata, wood hyacinths, and a few tulips have also pushed through. I would love an early spring, but if I remember, we get ice storms in march... It would be fun to know what others are seeing. – S.W. –

Dandelions are amazing. Often as early as lenten rose (*Helleborus x orientalis*) but rarely credited or appreciated. **Nice thing about dandelion** stems that mature so early is they probably won't be pollinated so a little less dandelion seed will be added to the world this year. The aconites, and other sprouts will probably be fine.

Post your observations on the Forum at GardenAtoZ as an invitation to hear what others are seeing.

More at GardenAtoZ! http://www.gardenatoz.com/what%27s-up!/tip-cuttings/dandey-icy-line/

Queries about operations at www.GardenAtoZ..

What is a Sponsor? Can I be one? - T.T. -



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More at GardenAtoZ!http://www.gardenatoz.com/what%27s-up!/what%27s-next/transition-times/

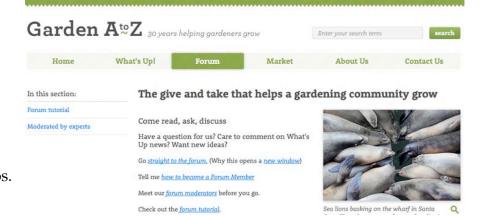
I don't belong to the Forum. How do I get there? - J.R. -

your Sponsorship message.

1) Go to

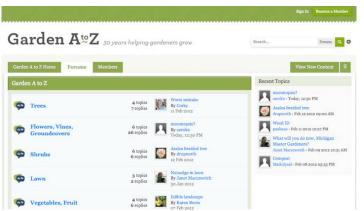
http://www.GardenAtoZ.com/Forum/

2) Click on "straight to the forum" or linger a bit to check out the tutorial or the Moderators' bios.



How do I post a question on the Forum? I tried but got a message that I'm "not allowed." - C.L. -

It's an open Forum -- anyone can read. It's a free Forum -- anyone can register (click "Become a Member," upper right on

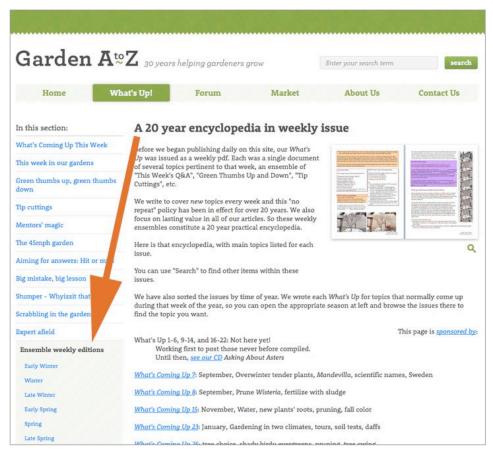


the screen)
and then
post
questions or
comments.
Sorry we
have to ask



Sign In Become a Member

even that small step to enable you to post. We must, as we can't block SPAM without a verified email address for each post-er.



I think I found the old issues of your newsletter on your website. Am I right, are they all in Ensemble Weekly Editions? You should mark them more clearly - M.A. -

Yup, Ensemble Weekly
Editions contains, so far,
about 300 of our 1,000+
back issues. We add more
as we have time or
Sponsors call up particular
issues. We're also
beginning to move some of
2012's articles into the
Ensemble section in oneweek bundles as newer
news fills the upper
registers. We'll look for
ways to help others find
them!

Is the newsletter going to go away and there will be just the website? - S.W. -

The email newsletter will continue. We're transforming it into an executive summary with links to the complete articles at http://www.GardenAtoZ.com.

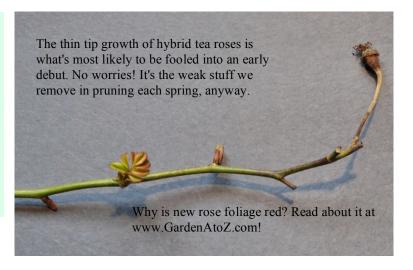
We've loved the newsletters in pdf format but we're thrilled at this new mode. In articles on the site we do not have the restrictions on photos we have had in email and pdf. Also on the website, we can make quick connections for you between today's news and related items everywhere in our library and off-site, too. Already, not quite halfway through our transition, what you see here in the pdf is just part of what's on the site on any given topic.

Rose grows, no stopping its rush! My rose bush is budding out. It's way early. What should I do? - J. -

Nothing to be done. The exposed shoots may be damaged but then again may weather the end of winter just fine. Then in early spring when you prune to remove old and weak growth, and shorten canes to sturdy bases, you'll probably just cut off that portion.

More at GardenAtoZ!

http://www.gardenatoz.com/what%27s-up!/tip-cuttings/a-rose-too-early/



This week in our garden

Grow with us! This week:

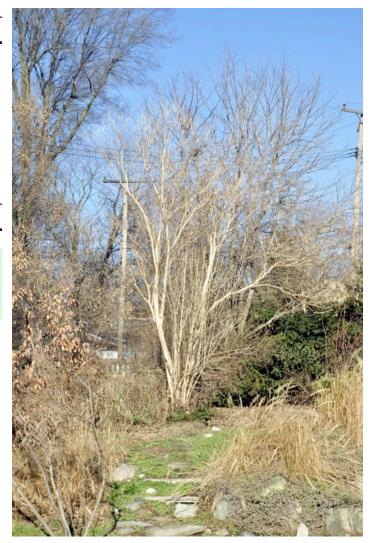
We're pruning, and still hustling to catch up on design work. We're also late with this issue and it's too full already so we're closing it out. We'll deliver another very soon, and include our design musings.

The 45mph garden

You can put a gardener behind the wheel but you can't take the flowers out of his eyes. Look at what's catching driver's eyes and raising questions this week.

White birches are pretty common in the northern U.S. and Canada. But another light colored bark has begun to cause comment. It's seven son shrub, *Heptacodium miconioides*.

It's a fast growing relative of honeysuckle that may be a shrubby tree or tall shrub, about 20 feet tall. Its bark is vanilla colored and peeling. White, very fragrant flowers open at the end of summer (giving rise to comparison to lilac in its alternate common name, reported below). Pink seed pods can



be quite showy in October. There is no significant fall leaf color. Well drained soil and sun to part shade suit it. We see many butterflies on the plants and have not in 20+ years seen any serious pest problems.

More at GardenAtoZ! http://www.gardenatoz.com/what%27s-up!/the-45mph-garden/seven-sons-run-45mph/

Green thumbs up to asking for help now regarding last year's mystery problems, via photo or description posted on the GardenAtoZ.com Forum. Wait until spring and help may be slower to come because everyone is busy. Problems that are new to us usually catch our eye only when they have progressed to advanced stages, when the time for fixes has passed for that year. So we learn each winter what those new insect or disease issues were and can act in spring when there's time to head them off before they do much damage.

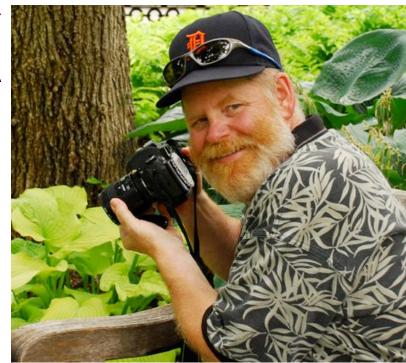
Green thumbs down to the dilemma that results when family members **evict our perennial roots from the refrigerator crisper drawer** as "sprouts gone bad." We don't want to discourage others from taking the initiative on 'fridge cleaning now and then. Yet, drat their timing, as those perennial divisions were only going to be in there a few days more until we could break ground and tuck them in.

Who's Janet? Who's Steven? Where can I see them? How can I buy their books?

Professional gardeners who write, teach and photograph!

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