

GardenAtoZ.com presents:

What's Up garden news

Janet Macunovich and Steven Nikkila help you grow
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When you're trying to cover a property with grass it's easy to forget that it all comes down to making things right for one seed to sprout and take hold. Yet it's true: Starting a 3,000 square foot lawn boils down to making that little miracle happen about 7 million times!

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Lawn was in need of help... ...then completely gone!

Bought a house we like a lot, and the yard's nice, too, although the lawn was not so great. It was thin and weedy, not pretty, not soft to walk on. We thought we might do it over but then we had to have a new septic field installed. So now we must start over and we haven't got much money left. Advice, please, on how to make a great lawn starting from scratch, cheap! - C.N. -

The cost

We asked C.N., Can you manage \$180 to rent a core aerator, \$60 in seed, \$20 in fertilizer, \$20 for a seed spreader (or maybe you know where you can borrow one) and about 20 hours' work (that's one person several days or a team of three for a day)?

So seeding a lawn comes in at about 84 cents a square yard, in materials. Add in labor at \$10 per hour and it totals a bit less than \$1.50 per square yard.

Compare that to 3,000 square feet of sod installed for \$1,200 - \$1,800 -- about \$4.50 per square yard. Do that work yourself (all the work for seed or sod is the same except you scatter seed and rake, vs. carry and unroll sod) and you can pare the dollar cost to \$700, about \$2.10 per square yard.

C.N.'s answer was "We'll go with seed, tell me how," so we provided the coaching and some of the hours in exchange for the right to document the process. Such a deal we give our son!



Step one: Grade the area

Make it mostly level but sloped gently away from walks and buildings. Here, this was done very nicely by Ewer Septic Service as their last step of installing the new field and tank. The trouble with grading by machine is that it leaves the soil overly compacted. Soil must be firmed up to

make a nice lawn -- no one wants to sink in as they walk across their lawn as would happen while walking across a fluffy garden bed or on a beach. But machines' action and weight pack the soil to such density that it doesn't have enough air space to support good root growth.



Add air

So, job number two is to reintroduce air into that soil.

Some guides say to do this with a rototiller. We've found that running a tiller across ground packed this hard is like trying to dig into tile floor. The tiller tines just skip across the surface.

If the tines could bite, they might even create trouble. At the bottom of their rotation those tines press down with 5 or 8 horsepower. That can create a glazed layer -- a hard pan -- beneath the tilled surface, especially where there is a good bit of clay in a soil. That hard pan is a guaranteed impediment to water- and air flow.

In that bed above a hard pan even if the grass takes to begin with it won't be healthy and low care over the long haul. It struggles in poorly drained soil.

No till, just a core aerator

Instead of a tiller, use a core aerator.

\$180 rented this aerator for a weekend, plus a trailer so we could transport it without lifting it into or out of a vehicle. Actual time required to do this lawn's prep work: An hour. Too bad we hadn't checked with neighbors beforehand -- at \$25 per lawn we could have covered most of its cost!

This machine lifts out small cylinders of soil. Those cores fall back onto the surface, dry, and then fall as loose crumbles back into the holes or across the soil surface.



Advantage to native soil and late summer weather

People ask, "Don't you add soil?!" No, not unless there is something lacking in what's already there. A little bit of imported soil will not make a significant difference in the native soil's properties. Even adding a three-inch depth -- for this 3,000 square feet that would be 30 cubic yards, 5 dump trucks' worth -- will not change the

character of the top 18 inches of soil. Yet that depth is what counts for plants' roots. What "new" soil does bring is its own history, and sometimes that's trouble in the form of weeds, alkalinity, contaminants...

If the grade needs to be brought up a notch, add soil -- builder's sand if it's available, for its low weed seed content. If the native soil is so

sandy it's nutrient-poor (as indicated by a soil test or observations of plants growing in the soil over time), or has too much clay so it becomes gummy and airless when walked on, we add one- or two inches of compost. Spread that over a cored or otherwise roughened surface and there is no need to till it in.

Water first before aerating, so the machine will penetrate.

Luck was with us -- we had rain the day before the coring. And soon afterward. In fact, rain was predicted for three of the upcoming four days, so we felt like dancing a jig. That weather plus cooling nights are perfect grass growing conditions, which is why most sod farms in the Great Lakes regions do their seeding between mid-August and mid-September.

Run the aerator across an area, then make a second pass at right angles to the first.

Fertilizer in, debris out

After a day or so, spread fertilizer.

Choose it based on a soil test, or else use a balanced complete fertilizer such as 10-10-10. Use enough to apply one pound of nitrogen for every 1,000 square feet.

Here, for three pounds of nitrogen we used 15 pounds off 20-20-20 granular -- 15 times the bag's 20% nitrogen content equals three.





Use a landscape rake or bow rake to distribute the fertilizer and break up the cores.

Accumulate debris as you do, and cart away sizable rocks, sticks and other things that don't provide good seed-starting surfaces. You might wish away pebbles and small rocks but the truth is a sandy soil like this contains a

lot of stones. Sifting out what slips between the rake's tines isn't practical. Grass will grow around these smaller chunks, which will eventually settle into or be pressed into the surface by mower wheels and feet.

Choose seed for the site



Now, buy seed. In this step you can go one better than sod because you can use shade tolerant grasses such as fine fescue near trees and choose your own mix of improved, disease resistant bluegrass varieties or tall fescue for the sunnier areas.

Water before you seed. Luck was with us again -- rain preceded this phase the project.

Seed can be sown by hand but a spreader distributes it more evenly. As with core aerating, pass over every square yard walking east-west and again going north-south.



The seed package label will tell you how many square feet that much seed can cover. On average, you're looking for 16 seeds per square inch. This 3,000 square feet took about eight pounds of seed -- six of sunny mix, two of shady types.

[More on lawns](http://www.GardenAtoZ.com) at www.GardenAtoZ.com Enter Search "new lawn"

Press the seed into the soil



Now rake or drag the seeded ground so the seed is pressed against the soil. This drag is made of a cylinder of hardware cloth -- wire mesh with small openings -- with bricks slipped into the cylinder. Tie a rope to either end and hitch it to the horse.

Now the only work left is to keep the seed moist until it's sprouted and nestled its first root into the soil. This takes 4 to 7 days of watering whenever the soil dries. Midday watering is best.

Water just enough to keep the surface moist

To water most effectively you can follow our lead and fold some of the seed into a moist paper towel, close that in a plastic baggie and put it in a warm place. Check it daily and you will know without crawling about on the seed bed, what state the seeds are in and how important it is to turn the water on.

The critical stage is when the radical -- the first root -- has emerged. It must stay moist or that seed dies.





What a joy to see a green haze over everything a week after the seeding. When the new grass reaches a height of three inches, begin mowing. Sharpen your mower blade before you do, because a dull blade can grab and rip young plants out of the ground.

Not too many weed seeds are sprouting. Because we did our ground work to make the soil a good growing bed, we know it's not a gamble but a pretty sure bet our grasses will win the seed race. They'll fill in and shade that ground in time to discourage competitors and become a lush lawn.

Buying sod? Go to the source

Know how admiring, proud and protective a gardener can be about peonies or petunias or potatoes? Second generation sod farmer Steve Chont of Waltz Green Acres Sod Farm in New Boston, Michigan taught a segment of our lawn classes during the years we came to you as The Michigan School of Gardening, and showed us that there is also a lot to love in grass.

If you are making a lawn from sod, you can rely on someone like Chont to give you all the direction you need to buy the right type and amount of sod, put it down and have it take hold quickly. In fact, he can be as upset as any flower gardener faced with ruined plants if you abuse his velvety green crop. Leave sod rolled up in the sun for a day even though he told you to install it as soon as it's delivered, for instance.

Chont says, "I tell them, if they can't get it put down at least unroll it and keep it moist or it will steam and die. But every year some people call to say 'the sod's all brown' as if our grass is to blame."

Chont's a member of the Michigan Sod Growers Association, individuals who love to see their crop grow well and make people happy. Their website (<http://www.michigansod.org/>) provides and leads you to University Extension services' good advice about starting and maintaining a lawn.

Mulch calculator

Too much or too little mulch? Never again!

Hey guys, what I need is a way to know for sure how much mulch I need! We bought this house two years and we're learning how to do most stuff in the yard. But mulch....! We bought mulch, spread it, it wasn't enough. We had to go back for more. The next year we had mulch delivered, spread it, it was too much and we ended up with a bunch sitting on the driveway most of the summer. - J.S. -



We're glad you asked because we've had questions before that made us think 'We should create a Mulch Calculator' and your asking bumped the number of requests up to our "do something about that" level.

You can download our Mulch Calculator (an Excel spreadsheet). It will tell you an exact number of cubic yards or bags of mulch if you just plug in:

- The number of square feet you want to mulch,
- How densely planted the beds are that you're mulching, and
- How deep you want to mulch.

Not sure about square feet, density or depth?

No worries -- the worksheet includes optional sections that let you describe your beds to figure the square footage, planting density, and how deep mulch should be.

Please let us know how this calculator works for you.

If it works well or there are only a few bumps to smooth out, we will very soon add a Rock Calculator (for rock to pave patios and paths, or fill dry stream beds, etc.) and a Soil Calculator.

To download Mulch calculator at www.GardenAtoZ.com Enter Search "mulch calculator"

Funnel spider at work

Our children and Steven once fed captured insects to funnel spiders that inhabit these dwarf Alberta spruces. The spiders were so quick to pounce that they grabbed every insect thrown to them before it became tangled in the webbing. However, the webbing had many tears so we thought that its strands just served as trip alarms -- Insect lands, line breaks, spider is alerted, pounce!

Now, we've watched how the web works. Here's the story in pictures. Warning: if you have arachnophobia, **DON'T LOOK!**



The lacy white drapery over these spruces is a collection of funnel spider's webs. The inhabitants of the webs eat everything, "good" and "bad" insects alike.

Every web has a silken funnel somewhere along its edge. A funnel spider lurks there waiting for the prey to come.



A squash bug is caught in one of the webs. The webbing seems so thin it appears the bug should be able to break it. But the more the bug moved, the more entangled it got. Its legs became pinned to its body after a brief struggle. Wondering where the spider is? We did too, and figured we were spooking it. So we turned our lens away and photographed another spider that was lurking in its funnel.



When we turned back to the squash bug it was now being assaulted by the resident spider. The spider seemed to be sucking the life out of the bug which suddenly went limp.





Then the spider cradled the bug and dashed back into its funnel. Once it was gone, only a slightly more shredded webbing indicated anything had happened.

For you photographers: all previous photos were taken in natural light. This photo was taken with a flash. Steven was hoping for a reflection off the bug and wished he could snip all the needles out of the way. (Janet told him, "Thanks for the heads up, I won't start researching spruce needle snipers again if she sees holes in these spruces.")



Plenty of Predators

While watching several funnel spiders in a 10 foot square area, a glance around revealed more than just spiders. There are many animals of all kinds on these plants.



How many preying mantises can you spot in this photo?



There are three. Here are closer photos. Can you spot them in the top photo now?

The preying mantis is a nondiscriminate eater, much like the funnel spider. It will even watch you, measuring you up for a possible meal? Reader Kay Neff says, "As a child I used to keep crickets, grasshoppers, katydid, mantises (until a big 4 - incher bit me hard on the finger!), etc. in the large bug box my dad built for me."



But more likely they are watching for other prey like the katydid, ailanthus webworm moth and hummingbird hawk moth that were at that same time on the dwarf Alberta spruce. Who knows how many more there were we didn't see? Any type of spraying will kill all of them, not just a particular target insect that's in your sights.



Pesticides can have an adverse effect on the predator population including this guy who was camped out two feet up in another dwarf spruce two steps away. Who'd a thunk it, a spruce climbing garter snake.

To kill a predator is much more upsetting to a natural balance than killing a prey creature. It takes longer for Nature to re-establish a lion than to replace one antelope; the same goes for insects and their predators. You're the only predator remaining to keep the "bad guys" in check if you wipe out your local predators!



Green thumbs up

To blanketing the garden with mulch in fall. It's customary to do this work in spring but there are good reasons to follow Nature's lead in applying all that organic matter in fall. (How much mulch will you need? Check the Mulch Calculator: <http://gardenatoz.com/what's-up!/main-features-this-season/mulch-calculator/>) We count seven advantages but just three drawbacks:

Positive aspects:

1. It's a damper not only on weed seeds that would germinate in spring but to the "winter weeds" as well -- creeping speedwell, tall rocket and others.
2. It provides some protection to plants against the big temperature swings that can kill roots in bare soil as the season changes.



Follow their lead: Northern botanical gardens mulch in fall (Here, Olbrich Botanical Garden in Madison, Wisconsin)

More on Mulch in Fall at www.GardenAtoZ.com Enter Search "mulch in fall"

3. Mulch will be there to cushion the soil against the pummeling of winter rain. Those icy drops can leave a layer of water-repelling clay on the surface of what had been crumbly soil.
4. We gardeners have more time available in fall and we're not racing against plants on the rise.
5. We'll be able to sit back and enjoy the emerging show in spring, with a good portion of the work already done.
6. We don't have to be so careful in fall as in spring, to avoid covering perennials' crowns. Young shoots that can be overheated or rotted by trapped moisture if covered after they begin growth in spring, are not there to be hurt in fall. When those shoots do develop in spring they'll do it under cover with every cell receiving cues from day one that say, "Stay tough, you're still underground."
7. There is a lot of free mulch around in fall. A layer of autumn leaves is fine mulch on its own but if that look doesn't please the eye they can be the underlayer that allows us to use much less purchased mulch as a veneer layer -- we can get away with less than an inch of shredded bark over the top of leaves.

Below: Sometimes we shred the leaves before using them as mulch in fall but most of the time we rake 'em up and toss 'em on. Does it hurt the perennials to have 5 or 6 inches of leaves over them in fall? In 30 years of doing this we've seen far more good come of it than bad. The bad: Sometimes in spring we have to poke at hard clumps of leaves that are rising like hats as plants beneath push up. Most of the time, only 1-2 inches of leafy matter remains as mulch by spring and that's a perfect number.



Negatives:

1. There is some chance that fresh mulch in fall will provide homes for voles - shrub- and tree bark chomping meadow mice. The rodents won't appear just because there is mulch, however. It's an issue to be taken into serious consideration where vole problems have already existed during the year. Traps or poison baits are necessary there, early mulch or not.
2. If we don't get all our dividing and moving around done at this end of the season but we do spread mulch in fall, the mulch will be in the way and need raking-out in spring around the plants still "on deck" for division.
3. The mulch may break down and have to be topped up in spring. But then, we don't *really* count it as a bad thing that gentle natural processes churned some extra organic matter into the soil!

Green thumbs down

To those who steal plant labels at botanical gardens and display gardens because they want to remember the name of a plant. These thieves not only vex those of us who follow behind and wish we knew the name of that plant, but they create a lot of work for garden staff. This is not a rare crime -- replacing missing tags is one of the biggest jobs at every botanical garden.

Ten years ago we understood why so many tags walked, but now... wouldn't those who don't have paper and pencil to record the name, have a cell phone so they could just take a picture of the tag?



Bevy of bird baths



It's a shallow dip yet broad, across many style lines!

I want to get a nicely decorated bird bath for the yard and have been looking...a friend told me that the nicest ones are up in northern Michigan. He recommended a place near Glen Arbor, which seems like a long ride to take for a bird bath. Can you recommend anyplace in southeastern Michigan? I have looked at on-line stores but would like to see, if possible, what it really looks like. I've seen nice small solar heated ones for winter. Any ideas? - D.B. -

They're "out there" in many places -- garden centers, gift shops, bird food sellers, home stores, art fairs, concrete statuary makers... We've listed "bird bath" following many business names on our Recommended Sources page (<http://gardenatoz.com/market/recommended-sources/>). You can jump to those websites from that page.

We know our back yard birds appreciate the water we offer all year so we do notice bird baths in others' gardens. We don't often ask, "Where did you buy that?" but when we do we often hear an answer like this one regarding bathes (*right*), "Hmmm. I can't remember for sure where I got that one. I kind of looked all over and found it someplace along the way." We've posted on the Forum* to ask where others have seen memorable bird baths. In addition, we asked for sources and stories about those shown here.

*Go to: <http://forum.gardenatoz.com/index.php?/topic/258-suggest-places-to-buy-bird-baths/>





We choose for the birds, certainly. LuAnn Linker, owner of our local Wild Birds Unlimited says, "It should be shallow, and easily cleaned with just a soft brush so you will put fresh water in it at least every few days, and not use any chemicals... A heater for winter is nice and those often go on sale at the end of summer."

Sturdy is good, too, so the bowl won't tip easily. Forum Moderator Celia Ryker is a lifelong wildlife watcher, and reports seeing, "Two thirsty rabbits cooperated to tip over the bird bath. I kid you not!"

Metal and concrete are sturdy if they're set on a level surface.



[More on Bevy of Bird Baths](http://www.GardenAtoZ.com) at www.GardenAtoZ.com Enter Search "bevy of bird baths"

Potent Potentilla



They were colorful in June...

...and given some cool weather in August, they do a Labor Day encore. Shrubby cinquefoil (once *Potentilla fruticosa*, it's recently had a name change to *Dasiphora fruticosa*) is native throughout much of North America including New England, the Great Lakes, the Upper Midwest, all of Canada and the American West right up into Alaska. It's a lover of cool summers -- thus it's absent in the Southeast and occurs in Arizona only in the cool mountainous areas. So it qualifies as one of those plants northern gardeners can grow to get even with southeastern gardening friends who crow about camellias.

We once laughed and called this tough little shrub the "bellybutton plant" since it seemed everyone had one.

More on Potent Potentilla at www.GardenAtoZ.com Enter Search "potentilla"

For years we sneered at this plant as "common." Lately we've taken new notice, such as at 45mph this week. We used to say, "You need to shear them after they finish flowering in June so they'll re-bloom a bit." Yet here they are in a bed untended but for water and weeding, re-blooming at summer's end to rival the June show, without even the threat of a clip.

Give them full sun and well drained soil, cut them back every few years, or cut some branches out every year to keep the wood young and lively, and enjoy 'em!

They aren't only yellow and white anymore! (Below, 'Gold Drop' on the left and 'Abbotswood' on the right.)



This year at Abele's Greenhouse in Saginaw we took note of 'Pink Beauty' and 'Mango Tango.'



Stumper- Whyizzit that

Some questions have no answer. All we can do is shrug and laugh. For instance, whyizzit that:

No matter how carefully you paw around and search, you won't find all the zucchinis or cucumbers that are ready to be picked and somehow they will already be a foot long the next time you pick!

Susan reported this just the day before E.C. at the Mary Thompson House and Farm community gardens in Southfield said, "Yeah! I picked the last zucchini on Wednesday, checked all around... I only stopped by today to pull up the vines, and there was a big old zucchini in there!"



For more **Stumpers** at www.GardenAtoZ.com Enter Search "stumper"