

# MASTER GARDENER Communicator

September 2004

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COUNTY

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## FROM ROADSIDE WEED TO GARDEN STAR

If you're looking for a late-season perennial to add to your garden, go for a drive down any country road and you'll find it. Or, at least, its wild cousins. It's goldenrod.

A great variety of goldenrod species grow wild in the United States, and new and improved hybrids are frequently introduced. Most have the characteristic upright form, branching stems, and spikes or panicles of tiny yellow flowers. Heights range from inches to several feet.

Goldenrods can grow in poor soil, but in good garden soil they thrive. Once they get established, they are very drought tolerant, so they fit easily into a low-maintenance perennials planting.

Even tall goldenrods don't need staking to remain upright. Some form clumps that can stay in one spot for years without needing dividing or sprawling into their neighbors' space. Others are opportunistic or even pushy and send out creeping roots to fill in every available space.

The larger goldenrods — such as architectural showy goldenrod (*Solidago speciosa*), which grows about 3 feet tall; statuesque stiff goldenrod (*S. rigida*), 5 feet; and wrinkled goldenrod (*S. rugosa*), 8 feet, can be used much as you might use ornamental grasses — in the back tier of tall plants in a bed, as a specimen plant at a sunny corner of a deck or as the backdrop for your rural mailbox or a birdbath.

Though the colors available in goldenrods are limited to versions of yellow, their uses in the perennial garden are hardly limited at all. They're a natural in an all-yellow garden, obviously, or in a garden with an all-warm-color mix — yellows, oranges and reds — or in a complementary arrangement of yellows and blues. Because of their open, airy texture, they can provide contrast to short, compact plants such as mums or dense, dark plants such as yews and other evergreens.

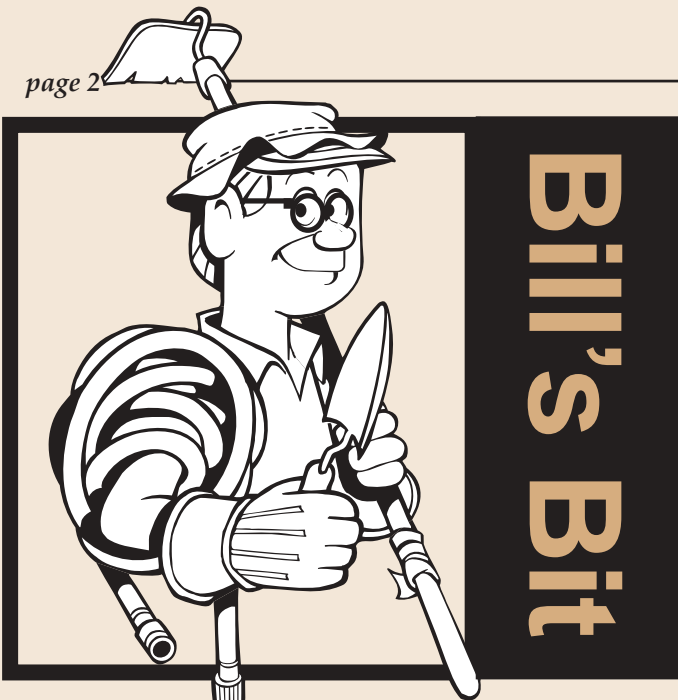
And, of course, they look right at home in a wildflower garden

Please see Garden Star on page 5

Throughout this issue:



*Canyonland Jewels*



Do you recall last December's Bill's Bit when I wrote about my plans for the new flower bed out in back? Let me jog your memory: I took down the fence around half of my 28 x 33 foot vegetable garden; my wife gave me the go ahead to plant whatever I wanted; I put together a home made bird bath. Does any of this sound familiar?

Okay, now for question #2. Do you remember that little episode in March about my indoor plants dying because the house was filled with carbon monoxide?

For those of you who haven't a clue what I am talking about, you can search for your old copies of the Communicator. The rest of you — pour yourself a cup of coffee, grab a donut and read on.

When the Consumer's Power technician went into the furnace room to turn off the furnace, she noticed that we still had our gas meter inside the house. As you may or may not know, if you don't like having your gas meter in the house and want it moved outdoors — you have to pay for the move. If the gas company decides to move it — they pay for it. That is an arrangement I can live with, especially since I had to pay to have the furnace repaired.

Moving the meter outdoors meant the gas company needed to dig a 3 x 3 foot hole, 3 feet deep to reroute the gas line — right in the middle of the nice perennial flower bed I have out in front of my house. "Mr. Fritsch, can we set you up for an appointment in late March?"

I was thinking — I would need to wait for the warm weather to arrive, look for signs of the new shoots of the various plants in the flower bed and then figure out how to save them. If I let the project commence in March, I might as well just kiss all my efforts for the last three years good-bye.

"No!!! How about late April?" April was just fine with them.

Fellow gardeners, as you are well aware, it takes planning, experience and skill to start a perennial flower bed from scratch. There needs to be some sense of plant maturity, five and ten years down the road, so the bed doesn't become overcrowded too soon. But what do you do

when, all of a sudden, you have excess material on your hands that you want to rescue?

It just so happened I had the layout of the new flower bed in the back yard handy. I knew there were certain areas I couldn't put perennials, like where the spring bulbs were planted. They were well on their way and couldn't be disturbed. But there was a spot where I had planted iris and gladiolas last fall. Before snow cover I noticed the irises had struggled a bit. Perhaps they didn't make it through the winter.

Sure enough, of the four groups of iris I had planted, only one survived. I knew from my plans the gladiolas were planted clear of the irises. Irises don't do well when their roots are crowded. So there was my opening.

A few days before the digging crew arrived I transplanted all of the perennials to their new location in back. I have to admit, I had to plant them a little bit closer together than I would like. But they have done quite well in their new home. In a couple weeks I will be selecting some to move back to the front.

I have given myself a little project that Emelee Rajzer, our Master Gardener Coordinator, is not aware of but I am sure she would approve.

All of us are know of the benefits of deadheading flowering plants to promote continuous blooming throughout the season. My question is: how long does it take, by species, before the new blooms come around? Imagine snipping the snapdragons on June 15 and pinching the petunias on June 30 so when July 21 rolls around everything is blooming in sync. Such information would be invaluable to a gardener with plans to have a beautiful garden, full of flowers, for a family reunion or some other significant event.

If you have the knowledge at hand, please e-mail to me ([TheKzooKid@aol.com](mailto:TheKzooKid@aol.com)) the plant species and the number of days to rebloom. See my regular address on page three if you want to mail the information to me. I will publish the list in the March 2005 issue of the Communicator so all of us can confirm the observations from our contributors. In December of 2005 I will put together a concise list with the findings.



*Beavertail cactus, Grand Canyon National Park*

## FROM THE HOME OFFICE

### REMINDERS!

- 1) If you
  - get married (change your name)
  - change your mailing address
  - change your phone number
  - change your e-mail address

Please notify the office so we can change our records and get information to you correctly.

2) Volunteering as a board or committee member for local gardening-related organizations usually does not count as volunteer work in the community. Please check with Emelee for clarification.

3) To re-certify, you need 15 volunteer hours and 5 education credits.

4) The certification year (only for those who are re-certifying) ends December 31, 2004 turn in your forms on time to guarantee your volunteer and education hours get credited to you.

### WHERE'S THE NEWS?

If you have an e-mail address, Emelee usually sends information at least once a week about new volunteer opportunities and other news items. However, a LOT of e-mails are coming back to her.

- a. Make sure the office has your most current e-mail address.
- b. Possibly you have a spam or bulk mail blocker on your e-mail. If you haven't heard from Emelee for awhile, this may apply to you. Most volunteer opportunity information that is e-mailed to you is also posted on the web at [www.msue.msu.edu/mastergardener/kalamazoo](http://www.msue.msu.edu/mastergardener/kalamazoo) AND available to view in the Master Gardener Volunteer notebook in the office.

If you have questions, please call Emelee at 383-8815

### KUDOS TO ONE OF OUR MASTER GARDENERS!

(From the American Red Cross in Kalamazoo): Master Gardeners are helping with our grounds upkeep again this year. To Lorraine Fedorchak-Kraker, the gardener who started last year as our "plant person" in conjunction with her community service requirement to achieve the Master Gardener certification, we owe a tremendous thank you for making our indoor plants look stellar! Lorraine has also arranged for donations of plants and products to the chapter.

## SOONER OR LATER, GARDENERS' TALK TURNS TO WEATHER

Except for farmers, whose livelihood hinges on it, gardeners probably spend more time talking about the weather than many other folks because their pastime relies so heavily on it. Actually, gardeners' focus extends beyond the day-to-day vacillations of sunshine and rainfall to include not only seasons but climate. All these related elements affect gardening.

Take seasons, for example. Non-gardeners have winter, spring, summer and fall. Gardeners have garden planning time, planting, growing and harvest, and fall cleanup. An early spring, a late spring, an early frost in the fall and other variations can push these seasons around the calendar a bit, but they generally unfold at similar times each year.

Climate enters the picture by determining which plants are likely not only to survive but to

Please see Weather on page 4

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## Weather

thrive in Michigan landscapes.

The U.S. Department of Agriculture has divided the United States into hardiness zones. Most of Michigan is in zone 5. Plants that are hardy in zones with higher numbers may survive a mild winter or a series of mild winters here, especially if they're planted in a sheltered area, but they'll rarely survive the cold of a typical Michigan winter. They tend to be short-lived in the landscape. Choosing plants hardy to zone 5 or lower numbered zones have a much better chance of thriving in Michigan growing conditions.

What we usually think of as "weather" — temperature, precipitation, wind and so on — is never far from gardeners thoughts, especially during what they like to call the growing season, which encompasses planting, growing, harvest and saving the harvest from frost times.

In spring, the focus is on how quickly the soil is drying and warming so planting can begin, how early is too early to start planting crops that can't tolerate frost and how to protect them from frost when they were planted too early. Summer concerns include whether the garden will get enough rain and when the various insect pests will make their appearance. As the summer turns into fall, keeping the garden producing under the threat of frost becomes the key focus.

What gardeners want from weather is simple: an early spring but not a hot one, so cool-weather crops can thrive and spring flowers linger; in summer, regular rains and freedom from damaging storms; in fall, a late frost so tomatoes have time to ripen and winter squash can mature so they'll store well, and some nice mild, sunny days to put the garden to bed and tend to landscape tasks before winter.

Like everyone else, however, gardeners have to take the weather they get. Sometimes spring seems like one long rain that postpones planting, the summer becomes so hot that pepper plants stop flowering, and an early fall frost surprises everyone and cuts the gardening season short.

Dedicated gardeners tend to recognize that that sort of thing comes with the territory. They don't give up, even when the one thing that most influences the success of their efforts — the weather — is totally out of their control. They joke about Murphy's Law being the ruling force in the universe, quote that old saying about Michigan weather — if you don't like it, wait a few minutes, it will change — and keep right on gardening.

That break between fall garden cleanup and spring planting reenergizes them for another growing season that could, with a little cooperation from the weather, be the best yet.

## STARTING LAWN FROM SEED TAKES TIME, PREPARATION

Success in starting a new lawn from seed depends on proper timing, site preparation and variety selection.

The best time to seed a new lawn in Michigan is late summer/early fall, says Ron Calhoun, Extension turfgrass specialist at Michigan State University. This time of year usually provides the moisture and cool temperatures that promote good germination and growth. Spring may provide the same conditions, he notes, but invasion by annual weeds that germinate along with the grass seed can be a problem then.

Preparation consists of several steps. The first is measuring the area to be seeded so you know how much grass seed to buy.

The second is having the soil tested. Results will include the pH (whether the soil is acid or alkaline) and lime and fertilizer recommendations. Your county MSU Extension office can provide a container for a soil sample and information on how to take the sample and interpret the results, Calhoun says.

Preparing the soil entails eliminating existing grass or weeds, stockpiling topsoil while any grading is done to make sure that water flows away from the house and preparing a seedbed. If existing topsoil is insufficient to create at least a 4-inch seedbed, you may want to import more. Try to match the existing texture, Calhoun advises, and make sure that purchased soil has been screened to eliminate weedy perennial grasses and stones.

Tilling to a depth of 4 to 6 inches to incorporate organic matter and any recommended lime or fertilizer, raking to remove plant debris and rocks, and rolling the seedbed to firm it get the soil ready for seeding.

"The right seed mixture for your lawn depends on the growing conditions there and what level of maintenance the lawn will receive," Calhoun points out. "Sunny areas usually do best with a mixture made up predominantly of improved varieties of Kentucky bluegrass and some fine fescue. Such a lawn will have a fairly high maintenance requirement but hold up well under hard use.

Bluegrass is less well suited to shaded areas, but mixtures of bluegrass and fine fescues will work fine and take less maintenance than bluegrass alone. Such a mixture is more wear tolerant than fine fescue alone but more shade tolerant than bluegrass.”

Another option for lawns is turfgrass varieties of tall fescue. Seeded in a pure stand, they will provide good turfgrass quality with limited maintenance. Tall fescue is more drought tolerant than bluegrass, he notes, and equally tolerant of close mowing and traffic.

Seeding can be done by hand or with a spreader. Both methods work best when the air is calm. To achieve uniform distribution of the seed, Calhoun suggests dividing the quantity of seed for the entire area in half and applying the first half in one direction and the second half at right angles to the first.

Rake the seed lightly into the soil surface, then roll the area with a light roller to firm the soil around the seed, Calhoun advises. This will speed up germination and increase seedling survival, he explains.

Mulching the newly seeded area with straw helps keep the seed in place during rain or overhead irrigation and conserves soil moisture. Mulch should be spread thinly so that there is only one layer of stems over the seed. Combined with watering, mulch creates conditions suitable for germination and early growth, Calhoun says. Frequent light watering is necessary to keep the seedbed moist.

“You don’t want the soil to dry out, or to apply so much water that the seed is washed away or the



## Where is it?

*The page one banner photograph of a farmer harvesting winter wheat was taken in Saginaw County, Michigan. July 20, 2004.*

soil is soggy,” Calhoun says. “On warm, sunny, windy days, you may have to water two or three times.”

As the grass grows, you can water less often but longer. This wets the soil to a greater depth and encourages deep rooting, he explains.

Mowing can begin when the grass blades exceed 3 inches in height, Calhoun notes. Sharp mower blades are a must to avoid injuring the young plants. Except for mowing, keep traffic off the new lawn until the turf has thickened so that the soil is no longer visible between the plants.

## Garden Star

with black-eyed Susans, coneflowers, asters and milkweed. They’re great in a butterfly garden, also.

Goldenrods have few if any serious pest or disease problems. And they aren’t the source of pollen for hay fever sufferers’ miseries.

Because they’re so showy, they’ve long been blamed for allergic reactions set off by pollen from ragweed, an inconspicuous plant that flowers at the same time as goldenrod and fills the air with irritating pollen.

Many people still consider goldenrod a weed, so you may find it listed in garden catalogs under its Latin name, *Solidago*, rather than “goldenrod.” By any name, it offers late-season color and dependable hardiness with minimal care. And you can’t do much better than that.

### Attention, Master Gardeners!

We’re always looking for interesting items for the *COMMUNICATOR*, so let us know what you’re up to.

The copy deadline for the next issue is November 15, 2004. Call or stop in the office by that date with news of interest to your fellow gardeners that you’d like to see included in the December 2004 newsletter.

Sincerely,

*Emelee Rajzer*

Emelee Rajzer  
Master Gardener Coordinator

*Ann Nieuwenhuis*

Ann Nieuwenhuis  
County Extension Director

## IT'S THE DIRT!

To the uninitiated, gardening seems to be all about plants. Certainly each of the seemingly infinite variety of trees, shrubs, flowers, vegetables and grasses is fascinating. Artfully combining them to create landscapes and gardens is challenging and rewarding. However, to the initiated, gardening is really all about soil.

It is easy to take soil for granted. After all, soil is almost everywhere. It literally comes with the territory when you buy a home or property. Soil may be largely dense sticky clay, thin gritty sand, or powdery silt. (Only the truly fortunate discover loose woody loam in the yard.) Whichever type, this existing soil constitutes the planting medium for the garden on the property. To improve its ability to support and nourish plants gardeners strive to improve its structure and boost its fertility. Fortunately, there is an abundant, inexpensive magic ingredient that makes this job a lot easier — humus.

### HUMUS CREATES SOIL

It is not a coincidence that the word “humus” is part of every gardener's vocabulary and that compost piles, one source of humus, are part of their gardens. Humus transmutes sterile dirt into fertile soil. Derived from organic matter of all kinds, humus is the life support system of soil. The presence of humus among mineral particles and air spaces enables soil to nurture plants two ways. Humus creates a loose structure that simultaneously holds moisture and drains well. Humus also creates an environment that supports living organisms that convert soil nutrients into a form plant roots can use, building soil fertility. In short, humus brings soil to life.

In nature humus is constantly introduced into soil as plant debris, dead animals, and other organic matter that decomposes on the ground. Through the alchemy of bacteria, fungi, and other resident micro-life activity, this organic material is reduced by degrees to its soft, spongy essence, called humus. It permeates the top few inches of the soil through rains, and the good offices of earthworms and other macro-organisms, where it continually revitalizes the soil around plant roots. This natural cycle is repeated over the seasons out in the wild, sustaining the great forests and other natural areas. Where there is lots of vegetation to decay and enrich the soil, such as in woodland areas, the soil is rich in humus and very fertile. Where there is little or no vegetation to provide the organic debris, such as at the seashore or in the desert, the soil has little or no humus and is lean, infertile.

In developed areas, such as residential yards and gardens, where the natural vegetation has been removed or disturbed, this natural decay cycle is disrupted. Organic matter such as leaves, dried plant parts, prunings, animal remains, manures, and other

debris is routinely removed before it can recycle into the soil. Intensive planting of crops, turf grasses, and ornamental plants rapidly depletes soil of its existing humus content. Bare soil in garden beds is exposed to the harsh effects of sun, wind, and hard rains, which further reduce its humus content and destroy its structure and fertility. To grow plants successfully gardeners must emulate nature and constantly renew the soil by adding the depleted ingredient, humus.

### HUMUS SOLVES SOIL PROBLEMS

There is no such thing as perfect soil. Every soil has problems in structure, texture, and/or chemistry that compromise its ability to nurture plants. The best way to confirm suspected soil problems is to submit a soil sample for laboratory analysis through the local agricultural cooperative extension office. Their computer printouts profile the soil content and structure, pinpointing deficiencies. Fortunately, the addition of organic matter, or humus, can mitigate many of these problems. Here are six soil problems that can be addressed by adding humus.

- **Compaction:** Good soil is loose and crumbly because it has lots of air spaces. Plant roots are able to penetrate soil deeply for extended drought resistance and stability. Air is also essential to the micro-life that lives on its organic content and processes its nutrients to create fertility. Typically soil in a home landscape is compacted, the air compressed from it by the weight of foot traffic, construction, mechanical yard care equipment, and harsh weather. To reduce compaction, regularly add humus in the form of a topdressing to existing lawns. Spread a mulch of some organic material on bare soil in beds and under trees and shrubs year round. Dig in compost, peat moss or the like into garden beds when planting to improve aeration.
- **Sandy soil:** Sandy soil has large particles with large air spaces between them. Therefore, it drains so quickly that it dries out quickly. Also, water-soluble nutrients leach out rapidly before the plants can use them. Humus incorporated into sandy soil acts like a sponge, absorbing and holding moisture and any nutrients dissolved in it. Replenish the humus content of sandy soil at every opportunity.
- **Clay soil:** Clay soils are so thick because they have small particles with correspondingly small air spaces between them. They tend to stick together and cause water to fill up the air spaces. Since moisture does not drain from this soil well, plant roots rot. Adding humus to clay soils discourages the small particles from sticking so tightly. They aggregate into larger clumps creating larger spaces that drain more easily and hold air to improve soil texture.
- **Fluctuating PH levels:** The acidity or alkalinity of soils, expressed as pH, affects how accessible their nutrients are to plants. Reduced acidity (pH higher

than 8.0) inhibits the uptake of iron, boron, copper and other elements necessary for plant health. Excessive acidity (pH lower than 6.0) discourages plant absorption of other nutrients. Alter pH levels by adding either sulfur to increase acidity or limestone to reduce acidity in amounts indicated by soil test results. Because humus buffers soil against changes in its pH, adding lots of organic matter to the soil will help maintain desirable pH levels.

- Pest insects, disease pathogens in soil: Soil rich in humus is alive. It supports active microorganisms to process nutrients and harbors beneficial macro-organisms such as ants and ground spiders that prey on soil-dwelling pest larvae and eggs. Humus creates a soil environment that supports beneficial nematodes and also bacteria such as milky spore that homeowners introduce into lawns to combat white grubs. Many other resident microbes attack and control disease pathogens that lurk in the soil. Topdressing and mulching lawns and gardens with organic material such as chopped leaves, compost or shredded bark products

discourages soil pest problems.

- Infertile soil: Soil becomes sterile over time as its humus content is reduced by hot weather, removal of topsoil, or intense cultivation without replacement of organic matter. The number and activity of microorganisms in the soil is depleted. In their absence the production of nutrients in the soil is severely curtailed and it becomes sterile. While fertilizer provides nutrients to plants, it does not solve a soil fertility problem. Supporting resident micro-life in the soil is the long-term solution. Topdressing lawns and perennial beds with humus and incorporating it into cultivated soil every year provides a home for these organisms so they can assure soil fertility.

#### COMPOSTING: MAKING HUMUS

Carbon material  
+ Nitrogen material  
+ Air  
+ Moisture = Compost

**Please see Dirt! on page 8**



*Treescape, Zion National Park*

## Dirt!

The secret ingredient in this recipe is the micro life--bacteria, fungi, and other tiny organisms--, which live on the surfaces of organic material. Acting as an elaborate food chain within a pile of yard and garden waste, they decompose it as they eat and reproduce. Pile some moist carbon material (dried, brown materials such as fallen leaves or straw) either alone or with a much smaller proportion of nitrogen material (moist, green stuff such as vegetable peelings, fresh weeds, or grass clippings) and let it happen. With sufficient air the organisms thrive, generating heat within the pile. Eventually the assembled yard waste is reduced to soft, dark, humus.

In a hurry? Encourage even more feverish microbial activity by shredding the material before piling it, turning or stirring the pile more often, or adding more organisms such as red wiggler worms.

## SOME SOURCES OF HUMUS

### Residential

leaves (chopped or shredded prunings, grass clippings, leaf mold — semi-composted leaves)  
on-meat related kitchen waste  
sawdust (from non treated wood)  
weeds, dead plants (disease and seed free)  
wood chips

### Commercial

bark products  
topsoil  
mushroom soil  
peat moss  
manures (dried)  
pecan, cocoa hulls  
farm crop residues  
straw

*The National Garden Bureau credits Liz Ball as the author of this article.*

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## MSU-Kalamazoo County Master Gardener Continuing Education Quiz

This September 2004, Continuing Education Quiz is one of a series of CE quizzes presented by the *Communicator*. Each quiz, when completed and passed, will provide one hour of MSU-sponsored horticultural training credit. A passing grade is 80% correct. Please submit your quiz to: Attn: Master Gardener Program MSU Extension -Kalamazoo County, 201 W. Kalamazoo Ave., Room 302 Kalamazoo, MI 49007. All Master Gardeners may take this CE quiz for education credit. The hour is education not volunteer, so it will not count towards your basic certification.

**Your name:** \_\_\_\_\_

- When and how do you harvest garlic?
- How are erect and trailing blackberries pruned?
- Colorado Potato beetles have what kind of metamorphosis?
  - incomplete
  - complete
  - gradual
  - does not go through metamorphosis
- Someone calls the hotline. They describe that they are having problems with a tree. After discussing the problem, it turns out to be a maple. This tree has yellow leaves, leaf scorch, reduction in twig growth, dieback on some twigs and branches, sparseness in the crown and in some areas, the leaves are wilting and dying. They have cut one branch and noted that it has dark brown streaks in the sapwood. What is going wrong with this maple tree? (hint- look in your woody ornamental chapter)
- With all this wet and cool weather, will eggplant be producing heavily?
- You have recently watched a program on TV on tree peonies. You would like to plant one. What kind of requirement do they need?
  - full sun, organic soil, root graft union above soil
  - shade, sandy soil, root graft union below soil
  - sun or partial shade, loam soil, root graft union above soil
  - shade, organic soil, root graft union below soil
- What is the neutralizing value of calcitic lime?
  - 60-75
  - 75-85
  - 85-100
  - 100-115
- Please draw a leaf that is a compound leaf and is odd pinnate.
- True or False- When working with Latin names, sanguineus refers to color.
- Is it important to remove spent flowers on rhododendron? If so, why?

# What's Wrong with this Plant?

## Advanced Diagnostic Training Taught by MSU Specialists

Pre-Registration required  
Limit 120 participants  
Free Training

To be held at  
Kalamazoo Regional Educational Service Agency (K-RESA) Auditorium  
1819 E. Milham Rd.  
Portage, Michigan

3 training dates  
Tuesdays  
6:00 — 8:00 P.M.

- October 5: Introduction to Diagnostics and Identifying Cultural & Abiotic Disorders of Plants
- October 19: Identifying and Managing Home & Landscape Insects
- October 26: Identifying and Managing Plant Diseases & Their Symptoms

\*Master Gardeners may record 2 hours of education credit for each training.\*

Fill out and mail form below to pre-register for each training session

----- Please clip form here -----

Name \_\_\_\_\_

Address \_\_\_\_\_

City/Zip \_\_\_\_\_

MG Certification is in \_\_\_\_\_ County

Registering for (check each training date you plan to attend):

- October 5: Introduction to Diagnostics and Identifying Cultural & Abiotic Disorders of Plants
- October 19: Identifying and Managing Home & Landscape Insects
- October 26: Identifying and Managing Plant Diseases & Their Symptoms

Mail to: Emelee Rajzer  
MSU Extension-Kalamazoo County  
201 W. Kalamazoo Ave.  
Room 302, Kalamazoo, MI 49007

OR call in your registration to: (269) 384-8197 or 383-8815.