

Roots and Shoots

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February 2015

Monroe County Master Gardeners Association

Disinfecting pruning tools

By Alicia R. Lamborn, Baker County Extension, FL

Special points of interest:

- ◆ You can grow mushrooms at home
- ◆ Nominate someone for an award; see two articles seeking nominees
- ◆ Some Indiana plants are carnivorous
- ◆ Check your hellebores; they may be blooming
- ◆ Winter is an excellent time to disinfect pruning tools
- ◆ Check your yard or acres for invasive plants

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Pruning saws, shears and other pruning tools can spread disease organisms from one plant to another or from one part of a plant to another part of the same plant if not properly disinfected. While it may not be completely necessary to disinfect pruning tools each time you use them, making a habit of doing so can help reduce the chances of disease transmission among healthy landscape plants, and is especially important when working with plants that are considered irreplaceable. Washing your hands with soap under running water is all that is necessary to disinfect your hands after working with diseased plant material.

Disinfection process

Tools should be brushed clean of dirt and debris before placing in the disinfectant solution. This will allow the disinfecting solution to reach every cutting surface. For chain saws, it is recommended that they be taken apart and both the chain and bar soaked. By having multiple pruning tools, one tool can be soaking in the disinfectant solution while the other tool is used for pruning. Disinfectant solution can be carried into the landscape in a tightly sealed plastic bottle, wide enough so that tools can be dipped directly into it. All tools should then be rinsed with clean water before pruning or allowed to air dry. The disinfectant solution should be replaced at least every ten plants or every two hours. In some cases, tools should be disinfected between each pruning cut.

Pruning tools that are regularly disinfected need to be kept in top condition. Older blades become pitted and these pits can harbor microbes that are unaffected by quick sterilization. This is especially true of bacteria associated with active cankers.

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Member news

By Evelyn Harrell



Master Gardeners attending the general meeting on January 28 earned two hours of educational credit and enjoyed the opportunity to listen to two excellent speakers who ignited our imaginations and sparked many questions.

Ellen Jaquart is the Northern Stewardship Director of The Nature Conservancy. She titled her presentation, *Report IN! Reporting Invasive Species in Indiana* and provided information on how Master Gardeners can help collect and input information on the locations and abundance of invasive species to a new website that is designed to map those invasives and lead to eventual control. Go online to www.inpaws.org/landscaping for more information, or go to EDDMaps.org/Indiana to participate in mapping.

Stephen Russell, mycologist and author of *The Essential Guide to Cultivating Mushrooms*, presented a session titled *Exploring Mycology through Citizen Science*. He is the President of the Hoosier Mushroom Society. Mr. Russell explained the study of mycology and educated members in the science of mushrooms, including the growth of genetic sequencing of mushrooms, and he addressed the many myths of mushrooms. Thank you, Sandy and Amy, for arranging these informative and engaging speakers.

ATTENTION: March 28, the date of the Sixth Annual Master Gardener Garden Fair, is just around the corner. The Garden Fair is a unique opportunity and one to be proud of. The Fair puts guests who want and need to be in touch with their inner-green self in contact with the promise of a new gardening season; Master Gardeners get to enjoy chatting with kindred gardening souls; and last but not least, community organizations can apply for grants from the profits to better their community garden efforts.

ATTENTION: Such an undertaking requires the help of every member! There are many volunteer hours available. If you have not signed up to work a shift, or maybe two, please contact Nancy White immediately at nwhite38@hotmail.com. If you enjoy working in the Garden Thyme Café, contact Evelyn Harrell at ear4841@comcast.net. All shifts have openings to suit your availability. The Café sales account for about one-fourth of the Fair's proceeds. Good sales at the Café depend on your generous contributions of fruit pies, brownies, and nut-free cookies. Please look at your calendar and schedule some baking for late March!

Speaking of late March, here is a timely poem by Percy Bysshe Shelley:

*“And Spring arose on the garden fair,
Like the Spirit of Love felt Everywhere;
And each flower And herb on Earth’s dark breast
Rose from the dreams of its wintry rest.”*

Note: Deb Thompson’s winning photo for the 2015 *folia and flora* cover is an heirloom rose, not a peony, as stated in January 2015 *R&S*.

Garden Fair update



By Nancy White

We're gearing up for the Sixth Annual Monroe County Master Gardeners Garden Fair on Saturday, March 28, and we need you.

The vendor and publicity committees are already working hard to notify media sources, potential vendors, non-profit agencies, and the general public that we are less than two months from the event. So, how can all MCMGA members help with this event? Here are some ways you can help:

- Send or give a Garden Fair postcard to a friend, neighbor, or family member (cards are available from Nancy White or at the extension office)
- Place a poster at your place of work, church, business, front window (posters will be ready by early March; contact a member of the publicity committee that you want a poster, and we can get it to you)
- Place a yard sign in your front yard or neighborhood (yard signs can be picked up at the extension office after March 15 and should not be placed on public areas before Monday, March 23; contact Nancy White if you need a yard sign)
- Volunteer on a committee (names of committee chairs were published in the January *Roots and Shoots*)
- Invite some friends, neighbors, and/or family members to attend the educational seminars at the Garden Fair with you

Garden Fair Committees were listed in the January *Roots and Shoots*. Several committees still need help. If you are not signed up, contact Nancy White

Commercial and non-profit vendors have until February 25 to sign up for a booth.

Do you have a Garden Fair yard sign in your garage or basement? Our inventory of yard signs is down this year. If you have a sign from last year, please notify Nancy White so we can update the inventory.

Sandy Belth and her committee have arranged a great lineup for our education seminars at the Garden Fair. All time spent attending these seminars qualifies for Master Gardener education hours.

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Invasive plants and mushrooms offer chances for citizen involvement

By Susan Lovell



How great it was to see so many wonderful Master Gardeners and interns turn out for our first general meeting of 2015 .We had two very informative speakers, Ellen Jaquart, who explained how to report invasive plants in Indiana, and Stephen Russell, who followed Ellen's thesis of citizen involvement with *Mushrooms: Exploring Mycology Through Citizen Science*.

Our abundant treats were tasty, healthy, and a wonderful introduction to the educational portion of our gathering. Refreshment committee volunteers for the evening included Mary Cusack, Marilyn Bourke, Mary Hoffmann, Dale Wilkens, Nancy White, Gloria Noone, Nancy Deckard, and Evelyn Harrell. Special thanks to all for their efforts.

The program for our next general meeting on Tuesday, March 24 at the extension office will be *Who, What, Where, and When to Volunteer for Master Gardener Hours*, presented by local gardening representatives. Refreshment committee volunteers for March are Jackie Gilkey, Ann McEndarfer, Muff Johnson, Sandy Belth, Laramie Wilson, and Deb Thompson. What wonderful treats await us? See you there.

Garden Fair update (continued from page 3)

9:30-10:30—*Incorporating and Capitalizing on Moss in the Native Shade*

Garden, Linda Cole, speaker

10:45-11:45—*Succulents*, Lisa Weisner, speaker

12:30-1:30—*Hydroponics*, Nicole Wooten, speaker

2:00-3:00—*Boxwoods*, Ken Cote, speaker

Master Gardener sales items for this year will be leather sheaths for the soil knives that were sold at past Garden Fairs. These sheaths are handy and are a safety feature for those great, sharp knives. We also will sell the new Master Gardener cookbook, which will be great for gifts and stocking stuffers.

The intriguing world of drosera

By Mary Cusack



Spoonleaf sundew (*Drosera intermedia*) is a lovely, small plant with spoon-shaped leaves. The tentacles are covered with drops of mucilage waiting for prey to land.



Round-leaved sundew (*Drosera rotundifolia*) is also a tiny plant having enticing mucilage tipped tentacles.

Reading about the natural landscape which Indiana has to offer took me on a quest to find out more about a genera of carnivorous plants known as *Drosera*—also commonly referred to as Sundews. *Drosera*, with over 194 species, is the largest group of carnivorous plants.

What makes this group interesting is that these plants, as opposed to the well-known family including Venus Fly Traps, do not “capture” insects by reflex or touch, but rather attract insects with a mucilaginous, sweet, and sticky substance which then acts as a kind of fly paper by adhering the insect to the plant. The plant then uses enzymes to kill (within 15 minutes) and dissolve the insect.

The *Drosera* has very weakly developed roots which are used mainly for anchoring the plant and for absorbing water. Since these plants grow in poor nutrient soil (mainly bogs) the insects are needed to provide essential mineral nutrition which the roots and growing area cannot provide. In fact, if *Drosera* are grown in wonderfully fertile soil, they will perish.

There are two species of *Drosera* growing in the wild in Indiana at Pinhook Bog

which is part of the Indiana Dunes National Lakeshore in LaPorte County. Pinhook Bog covers 580 acres, a part of which is a floating mass of sphagnum peat moss, where you will find the *Drosera*. This bog, known as a kettle bog, formed at the end of the Wisconsin Glacial time period. As the glacier retreated, part was left behind which melted and was then sealed with clay. The resulting bog is the perfect environment for these plants which thrive in stagnant, acidic and nutrient-poor water.

Pinhook bog is only accessible by appointment and may be visited during scheduled guides by park rangers. Tours may be arranged at the Visitor Center of the Indiana Dunes National Lakeshore or by calling (219) 926-7561.

Disinfecting pruning tools

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Finally, disinfectants should never be applied to pruning wounds because of their ability to further injure the plant and prevent callus tissue from forming, slowing the healing process.

Available disinfecting products*

Household bleach (ex: Clorox): 25% solution (1 part bleach + 3 parts water)

Pine oil cleaner (ex. Pine-Sol): 25% solution (1 part cleaner + 3 parts water)

Rubbing alcohol (70% isopropyl): 50% solution (1 part alcohol + 1 part water)

Denatured ethanol (95%): 50% solution (1 part alcohol + 1 part water)

Trisodium phosphate (Na_3PO_4): 10% solution (1 part Na_3PO_4 + 9 parts water)

Quaternary ammonium salts: use as directed on product label

Household Disinfectants (Lysol, etc): full strength

Tools should be soaked for at least five minutes (or as directed on the product label) and rinsed with clean water or allowed to air dry before use. A longer soaking period may be needed for pruning tool surfaces that are not smooth. Sterilizing your tools is no guarantee against plant disease, but it can have a significant impact on disease incidence and severity.

*The use of trade names is solely for the purpose of providing specific information. It is not a guarantee of warranty of the products names and does not signify they are approved to the exclusion of others of suitable comparison.

Soil & Water Conservation Awards

Submitted by Nancy White

The Monroe County Soil & Water Conservation District Board of Supervisors is seeking nominations for three new awards to be presented at the Monroe County SWCD Annual Meeting on March 26 at the American Legion. The three awards are *Emerging Conservationist* (Individual or Family); *Established Conservationist* (Individual or Family); and *Friend of Conservation* (Business, Agency, Governmental Body)

Nomination forms are available at the district office. Deadline to apply or to nominate a person or group is February 13 at 4:00 p.m. For information, contact the district office at 812-334-4325 x3.

Helleborus



By Sandy Belth

The warm weather the past few days lured me outside to check on the gardens. I couldn't resist peaking in on the hellebores plant growing in the backyard. As I pulled aside last year's leaves (which remain green all winter) I could see a new flush of spring green. Tight, new flower buds were starting to poke up through the blanket of fall leaves. Yay, flowers in winter! The flowers will bloom before the new leaves sometime near the end of February or earlier if the weather stays mild.

Hellebores are cold hardy, perennial plants that bloom in late winter and early spring. They are in the family *Ranunculaceae*, the crowfoot or Buttercup family, and are native to limestone regions in China, Europe, Southern Europe, and Western Asia. Because we have limestone here in Southern Indiana, they do well here, too. Hellebores tolerate a wide range of moist, fertile humus-rich soil and are a nice addition to a partially shaded garden or at the edge of woodland. They do well with added leaf compost. Most hellebores are characterized by having large, dark green, lobed or deeply divided leaves and cup-shaped flowers. The flowers are very long lived and come in several colors, including white, pinkish-white, yellowish-white, pale green, green with mauve edges, mauve, and purple. The sap may cause skin irritation in some people so careful handling is recommended. All parts of the plant are poisonous and have a burning taste; hence, they are shunned by deer. I think they look nice interspersed with hosta.

There are about 20 species, and new cultivars are available. One popular variety is *Helleborus orientalis*, sub species *guttatus*, which has the common name "Lenten Rose". This species is available in several colors including white and pink. They grow to be 18" X 18". One of the largest species is *H. agatifolius* also called "Corsican Hellebore" which can grow to up to 24" tall x 18" wide. It has large cup-shaped, apple green flowers. Smaller species are only 12" x 12" so you can create a layered look to the garden. *H. multifidus* grows 12" tall and 18" wide and has yellowish or pale green flowers. One plant that I would like to try is *H. lividus* which is 18" tall by 12" wide. It has deep green leaves with pale veins that remind me of wintergreen, and it has pretty pink flowers. *H. odoratus* has scented creamy yellow-green flowers.

Hellebores can be propagated by sowing seeds in containers in a cold frame as soon as seeds are ripe. (Cultivars do not come true from seed) The rhizomes can be divided soon after flowering, in late spring or early summer.

Roots and Shoots

2015 Purdue Master Gardener Search for Excellence

By John Orick, Purdue Master Gardener State Coordinator

Purdue Master Gardeners are invited to inspire fellow Master Gardeners throughout Indiana by sharing the educational impact of a successful project! The Purdue Search for Excellence (SFE) Award recognizes Purdue Master Gardener volunteer work and is modeled after the national SFE held at the International MG Conference. We applaud all the volunteer work done by Purdue Master Gardeners. However, this award recognizes outstanding group projects, rather than individual projects. Applications must show evidence of significant learning by the participants.

The Purdue SFE has four categories in which Purdue Master Gardener groups can showcase outstanding contributions to their communities:

- Youth Program
- Demonstration Garden
- Educational Service (Workshop or Presentation or Publication)
- Special Needs Audience (Senior, Disabled or Horticultural Therapy)

Purdue SFE applications are due to the Purdue Master Gardener Program state office by March 30, 2015.

Questions should be directed to John Orick, Purdue Master Gardener State Coordinator, by email orick@purdue.edu, or by phone 765-496-7956.

International Master Gardener Conference in Iowa

By John Orick, Purdue Master Gardener State Coordinator

This year's International Master Gardener Conference will be held at the Mid-America Center, Council Bluff, Iowa, on September 22-25, and we are brimming with excitement as the details are falling into place.

Registration details: \$330 Early bird: March 1 to April 30; \$385 Standard: May 1 to June 30; and \$440 Late: July 1 to August 31.

The two conference hotels are Harrah's in Council Bluffs and Embassy Suites, Omaha—Downtown.

We expect to have the conference reservation site available by March 1, 2015.

Volunteer opportunities

compiled by Mary Cusack

Location	Time	Jobs	Contact
Bloomington Community Orchards , 2120 S. Highland Avenue	seasonal	maintenance all levels of expertise welcome	Stacey Decker getinvolved@bloomingtoncommunityorchard.org bloomingtoncommunityorchard.org
Cheryl's Garden at Karst Farm Park , 2450 S. Endwright Road	summer during growing season	help with design and maintenance	Linda Emerson 812-345-2913 (cell)
Flatwoods Park Butterfly Garden , 9499 W. Flatwoods Rd., Gosport, IN	seasonal	maintenance and rejuvenation	Cathy Meyer 812-349-2805
Hilltop Gardens 2367 E. 10th St.	year around	maintaining gardens	Charlotte Griffin 812-345-8128
Hinkle-Garton Farmstead 2920 E. 10th St.	year around	invasive species removal, soil reclama- tion and more	Danielle Bachant-Bell 812-360-6544 (text) hgfvolunteers@gmail.com facebook.com/HinkleGartonFarmstead
Hoosier Hills Food Bank Garden , 7480 N. Howard Road	year around	plant, harvest, and compost	Ryan Jochim, 812-334-8374 hhfoodbank.org/volunteer.php
Middle Way House Roof Top Garden , a domestic violence shelter	seasonal	scheduled work- days at the garden	Toby Strout, director 812-333-7404 garden@middlewayhouse.org
Mother Hubbard's Cupboard 1100 W. Allen St.	year around	various garden tasks	Kendra Brewer, coordinator garden@mhcfoodpantry.org
T. C. Steele , 4220 T. C. Steele Rd., Nashville	seasonal	maintenance, in- vasive species removal, restorations	Anthony Joslin, leave a message at 812-988-278 tcsteele.org
WonderGarden , 308 W. Fourth St.	twice a year	maintenance, planting, mulching	Nancy White, 812-824-4426 nwhite38@hotmail.com wonderlab.org/exhibits/wondergarden
Wylie House , 307 E. Second St.	year around	growing/saving seeds and maintenance	Sherry Wise, 812-855-6224 indiana.edu/~libwylie/garden.html
MCMGA Demonstration Garden , Fairgrounds	year around	select gardens and plan the event	Herman Young, 812-322-5700 Jeanie Cox, 812-360-3587
MCMGA Garden Walk Committee	year around	select gardens and plan the event	Mary Jane Hall, 812-345-3985 gardenz4ever@hotmail.com
MCMGA Horticulture Hotline	year around	answer inquiries and research	Amy Thompson, 812-349-2572 afthompson@purdue.edu
MCMGA Program Committee	year around	Help plan MG programs	Sandy Belth, 812-825-8353, belthbirds@aol.com Susan Lovell, 812-339-5914, smlovell@indiana.edu
MCMGA Speakers Bureau	year around	research and plan speakers	Amy Thompson, 812-349-2572 afthompson@purdue.edu
MCMGA Website	year around	various jobs asso- ciated with the website	Stephen Anderson, 812-360-1216 mcmga.net

Remember to wear your badge when volunteering and keep a record of your hours.

Keep a copy of any volunteer records forms you submit to the extension office

Grow mushrooms at home?

By JoAnne Skelly, Storey County, Nevada Cooperative Extension

Growing gourmet and medicinal mushrooms indoors is a fast-growing hobby. A colleague used to grow them in her bathtub. The North American Mycological Association (NAMA) says, “You too can grow mushrooms at home. It’s easier than you think.”

They recommend beginner growers buy a “mushroom cultivation kit.” A kit comes with spawn—the “seed” for new mushrooms and a sterilized growing medium called a substrate.

NAMA recommends the oyster, shiitake or maitake mushrooms for indoor growing. Although the kits do come with substrate, oyster mushrooms will grow on straw, corncobs, sawdust, newspaper, cardboard and even on rolls of toilet paper. Fungi Perfecti, a supplier of mushroom growing supplies, rates its mushrooms for ease of growing with one diamond for the easiest to five diamonds for hardest. Oysters rate one diamond. Shiitake, which are grown indoors on hardwood sawdust blocks, rate two diamonds. Maitake, also grown indoors on sawdust, rate four diamonds.

After deciding which mushrooms to cultivate, obtain the spawn from a supplier. While growing your own spawn successfully is possible, it is difficult because it requires a pressure cooker and a sterile workplace to create a clean spore print, probably a bit much for a beginner. Once the spawn arrives, follow the growing directions carefully. Mushroom spawn is alive; and it should be started soon after arrival. Following watering instructions is equally important.

Mushrooms require high humidity of 80 to 90 percent. Oyster and shiitake mushrooms have both cold and warm weather strains, so temperature requirements vary. Good air circulation is necessary as is keeping carbon dioxide levels low. Indirect sunlight works best for most species. At The Greenhouse Project, they grow oyster mushrooms under the benches in plastic bags of moist straw cut with air holes. The growing area is then enclosed with clear plastic sheeting, which maintains humidity but also lets in light. Initially, the bags are misted several times daily to start the growing process. When the mushrooms appear, the bags are watered daily.

You can make a greenhouse-type environment perfect for mushrooms in different ways: a cart covered with clear plastic to hold a few bags of spawn; a clear plastic bag over an individual mushroom ‘patch’; an entire room or house for the mushrooms; or grow them in clear plastic containers with lids and sides vented with air holes.

Invasive species a local problem

Source: <http://bloomington.in.gov/invasive-species>

A number of invasive plants currently threaten Bloomington to various degrees. Several of these are listed in the table below (for Latin names, see website chart source). The following six invasive plant species represent the most significant threats to Bloomington: Brazilian elodea, sweet clover, tree-of-heaven, Japanese stilt grass, wintercreeper, and bush honeysuckle. For more information on these and other invasive plants, visit the Indiana DNR's Invasive Species site.

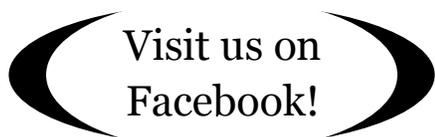
Aquatic plants	Herbaceous plants	Trees	Grasses	Ground-cover	Shrubs
Brazilian elodea	Sweet clover	Tree-of-Heaven	Japanese stilt grass	Winter-creeper	Bush honeysuckle
Eurasian watermilfoil	Garlic mustard	Norway maple	Reed canary grass	Kudzu	Multiflora rose
Water hyacinth	Canada thistle	Autumn olive	Quack grass	Japanese hops	Common privet
Yellow floating heart	Purple loosestrife	Siberian elm	Tall fescue	Oriental bittersweet	Japanese barberry
Curly leaf pondweed	Japanese Knotweed	Black locust	Maiden grass	English Ivy	European Highbush cranberry
		Buckthorn	Johnson grass	Crown vetch	Burning bush
		White mulberry	Reed grass	Moneywort	Butterfly bush
		Russian olive		Japanese honeysuckle	

**Monroe County
Master Gardeners
Association**

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Helping others grow!



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Master Gardener Calendar

February 28, Advanced Master Gardener Training, Madison County Fairgrounds, Alexandria, IN

March 7, Eighth Annual Spring Tonic, Orange County Community Center, Paoli, IN

March 14, Wabash Valley Spring Seminar, Ivy Tech Community College, Terre Haute, IN

March 20-21, Annual Morgan County Master Gardener Garden Fest and Pansy Sale, Hoosier Harvest Church on SR252, Martinsville, IN

March 28, Sixth Annual Master Gardener Garden Fair, National Guard Armory, SR South 37, Bloomington, IN