



Roots and Shoots

Volume 29, Issue 12



State MG Conference even better

By Vicky Myers



The 2013 Purdue Master Gardener State Conference was held September 5-7 in Elkhart, hosted by the Elkhart County Michiana Master Gardeners. This was the second MG State Conference the Michiana group has hosted in the past five years, and this year's conference was even better than the one they hosted in 2009.

On the first day of the conference, participants were given the choice of attending workshops for making herb balms and wreaths or taking bus tours of Wellfield Botanical Garden, De-Fries Calendar Garden, Bonneyville Mill County Park and Dahlia Society Gardens . The Dahlia Society garden was in full bloom, showy, and the highlight of the tour.

Break-out sessions on the second day covered a variety of subjects such as shade gardening, native trees, butterflies, and calendar gardening, (continued on page 3)

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Next MCMGA meeting is January 2014

Date	January 28, 6:30 p.m.
Location	Extension office meeting room
Program	<i>How to Grow and Use Sprouts to Maximize Your Health and Vitality</i>
Presenter	Penny Austin, MCMGA member
Education hours	2
Note	Refreshments are available at 6:00 p.m. 2014 membership guide, <i>folia and flora</i> , will be distributed

Special points of interest:

- Six Master Gardeners mentor non-profit grantees
- Vicky St. Myers has attended every State MG Conference since 2006
- What can we learn about weather from woolly-worms?
- Plants feel touch
- Have you renewed your MCMGA membership

Member news

By Evelyn Harrell



The 2013 edition of the annual Holiday Dinner at Sherwood Oaks Christian Church was an abundance of fun, food, laughter and conversation. Master Gardeners did not let the threat of snow keep them away. The Sounds of Indiana, a barbershop ensemble, made a surprise visit and entertained with a selection of traditional and not so traditional arrangements while heads nodded and toes tapped to the beat. Barbara and Tom Coffman sent a nice email. They enjoyed the good food and good company and the good music and wanted to express their appreciation to the organizers. So, here they are: Susan Lovell and her committee members Penny Austin, Barbara Coffman, Muff Johnson, Tom Lovell, Nancy Page, Peggy Rees-Krebs, and Diana Young. Ann McEndarfer and Bob Baird were the creators of the lovely fall centerpieces on each table that then became door prizes for the lucky winners. Jeff Schafer and Abe Morris volunteered to help load up the canned goods for the food bank.

Photo contest winner announced

Robin Rothe is the winner of the photo contest for the cover of the 2014 *folia and flora*, and we will enjoy an outstanding cover for all of next year.

Master Gardeners' contribution to the Hoosier Hills Food Bank

Julio Alonzo, Hoosier Hills Food Bank's Executive Director, advised that this is a challenging time for the Food Bank as some contributions they depend on have been down, but the demand for food has risen during this time when the food bank is gearing up to provide a little extra to agency food pantries facing holiday demands. He thanked us many times for the opportunity to speak and for the contribution of canned goods for the food bank. Diana Young brought her collapsible 'little red wagon' filled with a tower of cans and boxes that overflowed and covered a nearby table. Julio weighed our offerings the next morning and reported back that 209 pounds of food was added to the food bank's stores.

Annual Garden Walk email questionnaire

It was announced that a poll would arrive by email the next day with a half-dozen questions concerning the Master Gardener annual Garden Walk. The information from members is very important, and it is hoped that everyone responded quickly. It is not too late to chime in if you still have the email.

Master Gardeners serve as mentors to agencies receiving garden grants

Now that the 2013 growing season is over for most of us, it is past time to acknowledge the Master Gardeners who volunteered to mentor the community groups who were selected for the 2013 MCMGA Community Grant Awards last spring. Listed below is the mentor, the agency, and the grant's purpose:

(continued on page 3)

State MG Conference (continued from page 1)

Bonneyville Mill County Park and Dahlia Society Gardens . The Dahlia Society garden was in full bloom, showy, and the highlight of the tour.

Break-out sessions on the second day covered a variety of subjects such as shade gardening, native trees, butterflies, and calendar gardening, and presented by entertaining and knowledgeable speakers. Landscape designer Jon Cutrell's session explained his unique project of a large, round calendar garden that changes with the seasons and is still a work in progress. Joe Lamp'1, author and host of *Growing a Greener World* on PBS, gave us a behind-the-scenes look at how those perfect looking gardens on television are not real. They are created temporarily with rolls of sod, potted plants, potted shrubs, and potted trees.

Several vendors were present selling everything from handmade candy to garden tools. Vendors offered plants, bulbs, aromatic oils, books, and garden decorations, something for everyone. On Saturday night there was a special presentation and farewell to Rosie Lerner, who retired last year as the Purdue State MG Coordinator after 29 years on the job.

I have attended every Indiana State MG Conference since 2006 when I became a Master Gardener. I'm always impressed with the amount of work and time the hosting county invests to ensure the attendees have a good time and come away with new ideas and new perspectives on gardening. The 2014 conference will be in Indianapolis hosted by the Marion County Master Gardeners, and I plan to be there.

Member news (continued from page 2)

Lynn Courson, Area 10 Agency on Aging, accessible raised gardening
Nancy White, Bloomington Community Orchard, increased plantings
Gary Anderson, Farmer House Museum, design Victory Garden
Charlotte Griffin, Hilltop Garden, youth garden
Ivy McCammon, Middle Way House, enlarge and improve roof garden
Ida Bouvier, Salvation Army, design, build and plant a raised bed
Lynn Courson, Templeton Elementary, school garden project

Hope your holidays are just what you wished for, and Santa brings lots of gardening catalogues to your mailbox!

Wildlife plant damage

Damage caused by deer or rabbits is not difficult to identify. Deer browsing often leaves a jagged or torn surface on twigs and stems. Rabbit or rodent damage will leave a clean cut surface usually at a 45° angle like a good pair of Felco pruners.

From <http://web.extension.illinois.edu/cfiv/homeowners/971227.html>

Garden ills and cheers

By Susan Eastman

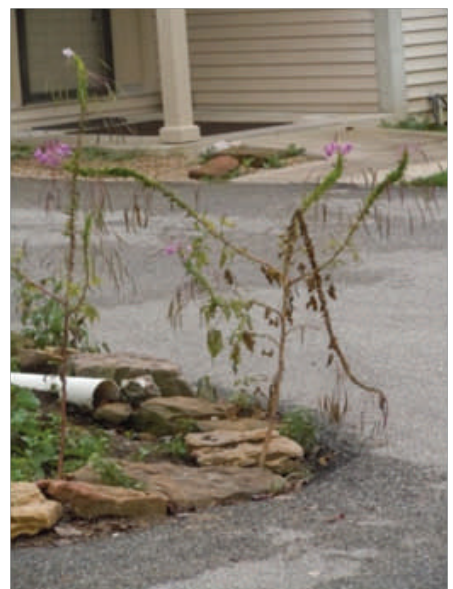


This time of year seems a good time to reflect on the past garden season, noting what worked well and what needs changing for the next season.



Mums contribute enormously to the color and cheer of Bloomington gardens in the fall and early winter. And their care isn't difficult: Each plant needs to be cut back right after blooming and once again in late spring in order to flower prolifically the next fall. Moreover, a splendid selection of bright colors is now available. But I do think inserting deer discouragers is rather a visual distraction.

Cleome is another favorite that does well in Bloomington's climate. Cleome needs full sun and some space, but siting takes some care. Note the three pictures below showing a lovely blossom, a graceful plant, and then the usual autumn outcome if you don't get your clippers out promptly. It seems best to hide cleome behind something bushy.



Have you noticed little green starts coming up in bare dirt spots in your garden? BEWARE. Those may be the dreaded bindweed! Bindweed is a vine that climbs up other plants. It especially likes shrub roses and sunflowers but isn't very choosy. Any tall plant that shades its roots and provides some sun can easily be smothered by bindweed in a couple of years.



(continued on page 5)

Garden ills and cheers (continued from page 4)

The Moya Andrews bindweed treatment involves spraying Roundup into a plastic newspaper bag to keep Roundup off your treasured plant as well as away from animals and yourself while stopping particular bindweed vine strand for the season. Here's the treatment: cut a bindweed strand back to about a foot, insert the remaining vine still attached to its root into a plastic newspaper bag, and spray a LOT of Roundup inside the bag; then tie the bag securely at the bottom and leave for a month or so.

Bindweed sneaks into your pristine garden in imported dirt. Midwest gardeners must treat infestations strand by strand and catch the weed while it's small. Once established, removal is labor intensive.



Do you live near a recent housing development? Do you have little holes in your garden? Several people have commented they haven't had burrowing critters in their lawn or garden in the past but are finding them for the first time this fall. We usually think of these holes as mole holes, but the holes may be caused by other critters, such as chipmunks, voles, mice, or YUCK rats. Any newly built housing area will displace rodents and send them out into new territory, looking for underground homes beneath our decks, along fences, under stonework. It's best to call an exterminator.

Even if the holes are caused by moles, getting rid of them yourself is no easy chore.

On the cheery side, fall and winter are excellent times to plant shrubs and trees. A few nice days when digging is possible always peek out between the wet/windy/chilly ones. Planting in fall and winter lets you skip the tedious watering chores next spring when rains are usually plentiful.

Do plant spring blooming bulbs now, as long as soil is diggable, even though fall is nearly over. Re-position those overgrown perennials that have grown too large. Give them six weeks to establish roots before the serious weather starts. However, I've planted bulbs and moved plants around as late as January! All survived and thrived.

Load up on pellet fertilizers, garden gloves, and other gardening equipment at local stores. There are always sales someplace where you can stock up for next year.

Finally, now is a good time to mentally revise your garden layout. After the leaves have fallen and the perennials have died back (or been whacked off), suddenly, the bones of your garden are revealed. The evergreens stand out, the patterns of shrubs and trees emerge, and the places you regularly walk show up. I just loaded up on 603 pounds of slate-like limestone to expand my stepping stones patterns into curves shaped like an S within a large garden area. Before now, the plants were so huge and spilling all over that I couldn't see where the stepping stones needed to go or would have trampled on precious fronds and branches to reach obscure places. But in winter, arches and S curves of stones can become pleasing patterns on the nearly bare soil. Maybe I should re-mulch now, too.



By Nancy White

Below is the committee list for Garden Fair 2014. If you are not listed but can help out between now and April, contact Nancy White. All committees can use new members, and time spent this winter and early spring on Garden Fair planning and committee activities qualifies for volunteer hours.

If you know any new commercial vendors of horticulture or garden-related interest, send names and contact information to Karen King, vendor committee chair. She and her committee are always looking for new, exciting vendors. Applications have already gone out to last year's vendors, but it's not too late for new ones to be added to our mailing list. Fair date is Saturday, April 5, 9:00 a.m.-4:00 p.m. Our site again this year is the Indiana National Guard Armory, 3380 South Walnut Street, Bloomington.

Physical Arrangements—plan facility set

up and/tear down

David Dunatchik

Jessica Wilson

Penny Austin

Dorothy Wilson

Marilyn Bourke

Connie Clark

Café—plan menu and staff café during event

Evelyn Harrell, chair

Larime Wilson

Shady McDonald

Gloria Noone

Jackie Gilkey

Nancy Miller

Donna Terry

Mary Hoffman

MC Paul

Cindy Benson

Jan Greenwood

Tom Lovell

Muff Johnson

Stephen Anderson

Sponsorships—solicit businesses or individuals to sponsor event activities such as tree give-away, seminar speakers, MG sales

Education—help plan education sessions

Sandy Belth

Lynn Couson

Master Gardeners Information Booth—set

up and work booth at event

Susan Eastman, chair

Helen Hollingsworth

Ann McEndarfer

Marilyn Bourke

Mary Jane Hall

Paula Perron

Don Sachtjen

Sue Sachtjen

Carol Reynolds

Master Gardener Sales—arrange for sales items and staff booth at event

Paula Perron

Sue Sachtjen

Don Sachtjen

Financial—work entry points day of event, arrange for money boxes

Diana Young

Dorothy Cole-Kiser

Paula Perron

Ivy McCammon

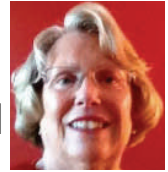
Vendors—contact vendors and arrange for ads

Karen King, chair

Lynn Courson (continued on page 7)

Fall holiday dinner meeting

By Susan Lovell



Our fall dinner on November 12 was the first with the all pitch-in format. The food was tasty and healthy, and we had lots of variety. Thanks so much to the refreshment committee volunteers. All took turns making sure the food table was neat and organized and drinks were available, and at the end of the evening, that all was cleaned up and returned to original condition. Committee members were Barbara Coffman, Muff Johnson, Nancy Page, Tom Lovell, Peggy Rees-Krebs, and Penny Austin.

Also, special thanks to Paula Perrons for suggesting and arranging our entertainment for the evening. The Sounds of Indiana chorus sang beautifully, and I always appreciate a performance when I know the words to the songs. The group really added to the fun of the evening. Our speaker for the evening was Julio Alonzo, director of the Hoosier Hills Food Bank. We learned so much about the history and evolution of the food bank and about how food is collected and distributed to those in need.

Our speaker for the January 28 meeting will be Penny Austin, discussing *How to Grow and Use Sprouts to Maximize Your Health and Vitality*. Two education hours will be available for this program. We have three volunteers for the refreshment committee for January 28 but could use two or three more. Please contact me at 812 339 5914 or by email at smlovel@indiana.edu. if you are available to help.

Finally, thanks to Evelyn Harrell for her constant encouragement, Nancy White for pitching in whenever needed, and special thanks to Diana and Herman Young for helping to close up for the evening. Events like this could not happen without the willingness of all to help out.

2014 Garden Fair committees (continued from page 6)

Barbara Coffman
Muff Johnson
Susan Lovell

Door Prizes—gather prizes and work booth on event day

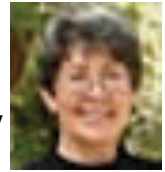
Judy Hawkins, chair
Jeff Schafer

Publicity—distribute posters, write articles, contact media

Sydley Skolnik
Ann McEndarfer
Abe Morris
Sandy Belth
Nancy White

Everybody's home

By Dianne May



Plants can see and smell. Not surprisingly, Daniel Chamovitz tells us in *What a Plant Knows*, they also feel. Plants can tell the difference between hot and cold. Some are more sensitive to touch than humans are, and they respond to tactile stimulation in different ways. Some are positive. Vines, for instance, reach for something to wrap themselves around and start to grow quickly when they touch it.

The most obvious example of a plant responding to touch is the Venus flytrap, which snaps its jaws shut when it feels an insect meal of the proper size (yes, it can tell that) landing on its leaves. Scientists were curious about how this worked since plants have neither nerves nor muscles, which are involved in animal movement.

The Venus flytrap, they found, has several large black hairs on the inside of each leaf lobe, and these are the triggers that spring the trap. At least two have to be touched within twenty seconds. This releases an electrical action potential very similar to the nerve impulses that cause animal muscles to contract. Although plants don't have muscles, they do have rigid cell walls. Normally, water within a plant's cells presses on the cell walls and holds the plant erect. When a Venus flytrap feels an insect on its leaves, an electrical impulse is triggered that signals the plant to quickly let the water out of its cells. It wilts, closing the trap.

In general, it seems that plants do not like to be touched, since things that touch it are likely to cause stress. Cocklebur leaves that have been stroked turn yellow and die. *Mimosa pudica*, grown as an ornamental worldwide, is extremely sensitive to touch. If you brush one leaf, all of its leaves droop.

More commonly, touching plants inhibits their growth. Trees that grow in mountains where they are buffeted by winds and rain have short, thick trunks and fewer branches than trees of the same species that grow in sheltered places.

In fact, touching plants can change their genetic activity. While all plant cells contain the same set of genes, different genes are activated in different parts of plants, and some genes are activated by different external environments. Scientists have found that over 2% of the genes in an *Arabidopsis* plant, a surprisingly large number, are activated when it is touched by an insect or animal or when wind shakes its branches. Since plants can't move from one place to another, they have to change their growth patterns to deal with changing environments, and touch plays a major part in defining those environments.

Although plants do feel touch, they do not feel pain. Plants move slowly and can't escape from harm as animals do. When they are wounded, they don't flinch and run. They warn other leaves on the plant through electrical signals so they can change their growth patterns in response to the danger.

Volunteer opportunities

Compiled by Nancy White

Location	Time	Jobs	Contact
Hilltop Gardens	year around	various	Charlotte Griffin, 345-8128
MG Demonstration Garden	seasonal	various	Herman Young, 322-5700
MCMGA Garden Walk Committee	year around	select gardens and plan picnic	Evelyn Harrell, 339-0572
Bloomington Community Orchard	seasonal	various	Stacey Decker, getinvolved@bloomingtoncommunityorchard.org
Cheryl's Garden at Karst Farm Park	summer	design and maintain	Linda Emerson, 345-2913 (cell)
T. C. Steele SHS	seasonal	various	Davie Kean, 988-2785
Flatwoods Park Butterfly Gardens	seasonal	various	Cathy Meyer, 349-2575
MCMGA Horticulture Hotline	year around	inquiries & research	Amy Thompson, 349-2575
MCMGA Speakers Bureau	year around	various	Amy Thompson, 349-2575
MCMGA Newsletter	year around	write articles	Helen Hollingsworth, 332-7313
MCMGA Web Site	year around	various	Stephen Anderson, 360-1216
MG Program Committee Member	year around	plan MG programs	Sandy Belth, 825-8353 Susan Lovell, 339-5914
Middle Way House	seasonal	various	Clara Wilson, 333-7404
Wylie House	year around	various	Sherry Wise, 855-6224
Mother Hubbard's Cupboard	year around	education, resource	Kendra Brewer, garden@mhcfoodpantry.org
WonderLab Garden	2 times monthly	various	Nancy White, 824-4426
Hoosier Hills Foodbank	year around	various	Nicole Richardson , 334-8374

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

Woolly-worm, winter-weather witchery

By Tom Turpin, Purdue



You can count on it. It happens every year in October and early November. I'm not talking about the days getting shorter and the air getting colder. I'm talking about someone asking what the woolly worms are saying about the upcoming winter.

It seems that woolly worms rank right up there with squirrels hoarding nuts, husk length on ears of corn and thickness of fur on rabbits as prognosticators of winter severity.

But not any old woolly worm will do when it comes to making winter predictions. One particular species of woolly worm has gained a certain amount of fame in this area. There are even annual fall festivals devoted to this particular woolly worm. Two of the oldest are in Vermillion, Ohio, and Banner Elk, N.C.



banded woollybear

The woolly worm featured in these festivals has the "official" common name of banded woollybear. The name is official because it is the one listed in the Entomological Society of America's *Common Names of Insects & Related Organisms* publication. But there are other common names also used for this caterpillar, including black-ended bear and fuzzy wuzzy. This fuzzy caterpillar is called banded because it is black on both ends with a reddish brown band in the middle.

The banded woollybear has the habit of curling up and remaining motionless when disturbed. According to J. H. Holland, author of *The Moth Book*, such behavior is related to the U.S. slang phrase, "to caterpillar." Holland states that "to caterpillar" means "to silently succumb and yield to the unavoidable." That sounds very much like "playing possum" to me. Anyone who has ever picked up this woollybear caterpillar has probably witnessed such behavior! The woollybear caterpillars become moths after they pupate. The banded woollybear is scientifically classified as *Pyrrharctia isabella*. Known as the isabella moth, it is one of the so-called tiger moths. These are medium-sized moths with a wingspan of about two inches; they are usually conspicuously spotted or banded. The caterpillars of tiger moths are normally hairy, which is why they are known as woollybears or woolly worms.



tiger moths isabella

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Woolly-worm, winter-weather witchery

(continued from page 10)

J. E. Smith named this moth in 1797 with the species epithet of isabella. The name isabella probably has nothing to do with Queen Isabella of Spain, who many history buffs know was instrumental in bankrolling Christopher Columbus' first voyage to the New World. Isabella likely was chosen as the species name because the word means a buff-brown color, which is descriptive of the moth.

So why has this particular species of woolly worm earned a venerated spot among animals that predict winter conditions? No one knows for sure, but at least three factors have probably contributed to this woolly worm becoming a winter-weather prophet.

The first reason is that the caterpillar has very distinctive markings. That means most people recognize the caterpillar when they see one.

Another reason is the behavior of these woolly worms. They are often seen scurrying across sidewalks and roadways on warm and sunny days during fall. This species of moth spends the winter hibernating as a caterpillar. The caterpillars seek protected sites for their winter snooze. However, the caterpillars never seem to be satisfied with any site and keep crawling around when temperatures remain warm.

A third reason is that the isabella moth is a common insect. That is partially because the caterpillars feed on a wide variety of food plants found in many different habitats. Food plants range from hardwood trees to plantain—a common roadside plant and lawn weed.

So how accurate is the brown-banded caterpillar of the isabella moth in predicting the winter weather? Spoiler alert: not at all! It is folklore, pure and simple. There are several versions of how to read the woolly worms, including direction of travel, density of coat, and width of the brown band.

So here's your handy-dandy, woolly-worm, winter-weather guide. Worms crawling south, expect a cold winter; crawling north, expect a mild winter. Unusually fuzzy worms mean a cold winter; less fuzzy, a mild winter. A narrow brown band indicates a cold winter, while a wide brown band means a mild winter is on the way.

I saw a really fuzzy black woolly worm crawling south in my barn today. I can't decide if I should buy more winter fuel or just head to Florida for the winter!

'Tis the season....

Planning to serve festive pomegranate seeds on salads this season? Try removing the seeds under water in a bowl. Find online a full description of how to do this as well as a simple method for freezing pomegranate seeds for later use.

Monroe County Master Gardener Association

Cooperative Extension Service
3400 South Walnut Street
Bloomington, IN 47401

Helping others grow!



Did you know...?

In Bloomington, wintercreeper (*Euonymus fortunei*), has extensively invaded Latimer Woods, as well as Dunn's Woods on the IU campus. Wintercreeper can spread vegetatively from shoots produced along branches or from rootlets spread along the plant's stem. Wintercreeper produces fleshy fruits, which are eaten by wildlife, thus facilitating seed dispersal. This ornamental is known to escape gardens and invade forests and riparian areas. Water is another means of dispersal. From: http://bloomington.in.gov/documents/viewDocument.php?document_id=3016

2013 MCMGA Board

President: Evelyn Harrell

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Vice President—Education: Sandy Belth

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Past President: Nancy White

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MCMGA memberships are due

By renewing immediately, you will be assured that your contact information will be included in *folia and flora*, our membership guide, which will be distributed at our January 28 meeting.

Membership renewal blanks are available for printing on our website, mcmga.net.

Send the renewal form and your check to the extension office.