As we look ahead to the New Year, please remember to join us for the first general meeting on January 28, 2014. Our speaker will be one of our own, Master Gardener Penny Austin, who will present, *How to Grow and Use Sprouts to Maximize Your Health and Vitality*.

Some of us may have grown sprouts back in the '70's and then moved on to another food passion. Penny has been growing sprouts for thirty years—for, she says, "eating on sandwiches, to throw in salads, and add to other foods." She will provide a variety of sprouts for us to taste and discuss their health benefits. Mark your calendars for January 28 at 6:30 p.m. in the extension office meeting room. We will have refreshments available starting at 6:00 p.m.

Two education hours will be available for this program.

Sign up sheets will be available at the meeting for refreshment committee volunteers to bring tasty and healthy refreshments for our meetings. Help with refreshments is needed at every meeting. This means more volunteer hours to be earned and enjoyment for our members.

Members of the January refreshment committee are Mary Hoffmann, Connie Clark, Angie Fender and Mary Cusack. One or two more volunteers would be helpful. Please email me at smlovell@indiana.edu or call me at 812 339 5914 if you are available to help.

**Reminder:** Our membership book, *folia and flora*, is distributed annually at our January meeting. If you cannot attend our January general meeting, plan to have a friend deliver yours to you to save postage costs.
Hello from Michigan, where the family has gathered for Christmas. Snow blankets the ground, the temperature lingers in the teens, the vacuum cleaner is clogged with pine needles, and seasonally bright poinsettias have replaced the nearly dead house plants that have been moved to the garage. It’s winter in Michigan.

**The Show for Gardeners by Gardeners, January 25**

At the same time, though, spring is coming to southern Indiana, or so it must seem. Gardens are drenched and possibly even damaged by the runoff from almost a foot of melted snow followed by over four inches of rain. So it’s nice to have some gardening things to look forward to: *The Show for Gardeners by Gardeners* will be held on Saturday, January 25 from 8:00 a.m.—4:00 p.m. CST at the Porter County Expo Center. Please contact me for additional information if you think you might be interested in attending.

**7th Annual Spring Tonic, March 1**

Another way to deal with winter doldrums is to plan to attend the *7th Annual Spring Tonic* scheduled for March 1, 2014, in Paoli, from 8:00 a.m.—3:00 p.m. at the Orange County Community Center. The event is open to the public, and Master Gardeners will receive five hours of education credit. Registration is $35 if paid by February 15, and includes a continental breakfast and lunch. We will post the registration form on the website and Facebook. If you want to carpool, please contact me for help in arranging it.

**Our next general meeting is January 28**

Join us at the January 28 general meeting for Penny Austin’s program, *How to Grow and Use Sprouts to Maximize Your Health and Vitality*. It promises to be fun, hands-on, and educational—just what we need on a dark January night! Plan on being there to pick up your copy of *folia and flora*, and hear about the many opportunities for upcoming events. Announcements will include information about the 2014 Garden Fair; news about a change to the May meeting format that will warmly welcome our interns to the organization; and a proposal by Paula Perron, Pam Hall and Sydley Skonik for a Master Gardener cookbook. In the news business, this is called a ‘tease’!

Nearly as important, there will be refreshments and socializing at 6:00 p.m. to look forward to. It was remarked in the recent Leadership Class that Master Gardeners love food. In that vein, the December issue of *Bloomingfoods news* stresses the importance of sharing food. Brad Alstrom, the regional co-op development coordinator, was quoted as saying, “It keeps us in touch with each other. It keeps us in the rhythm with each other.” In the same issue Zachary Moore said about sharing meals, “It is a gathering point so we can know each other a little bit better.”

Come to the meeting, and come early to share food and get to know each other a little better. See you there.
Monroe County is fortunate to have some wonderful volunteers who are very dedicated to helping others in our community grow. A few have been so dedicated that they have earned Master Gardener Gold status which includes at least 1000 hours of volunteer service. Three Monroe County Master Gardeners, Diana Young, Charlotte Griffin, and Nancy White, earned this accomplishment in 2013. Below Nancy and Charlotte share some thoughts on their participation in the Master Gardener Program and what it has meant to them. We will hear from Diana Young in the future (and wish her well in her knee replacement recovery for now).

Is there something in particular you remember about the volunteer training program?

Nancy: At my training class, the speakers were very knowledgeable, but I was really scared that I would not pass the test. Also, the MCMGA members were everywhere to help us and give us support. I remember Barb Baynes, Chuck Holdeman, Barb Hays, and Joanna Howe were especially encouraging. I appreciated that.

Charlotte: I don’t remember much other than I learned where resources were so that I could find some of the answers to gardening questions. The Purdue publications are a major source for me.

What has made volunteering as a Master Gardener rewarding for you?

Nancy: Volunteering has been a joy because I have met so many interesting community people, and they have been so grateful for the help I have been able to give. Also, I love volunteering with other Master Gardeners. We have great fun, and it makes the time go faster to volunteer with friends. Volunteering has been on-the-job-training for me. I learn new things each time I volunteer. Our annual Garden Fair has developed into an important community activity. Members step up each year to give of their time and talents to make it work. I have enjoyed my leadership in that activity and in working side by side with other members. (continued on page 4)
Charlotte: I find that being outside is almost a requirement for me to feel good. Volunteering as a Master Gardener gets me outside and gives me social contact with people who know about gardening or want to know about gardening.

Anything regarding your volunteer hours that you’d like to share that I or others might not be aware of?

Nancy: I think the time spent each year giving informal assistance and support to friends, family and neighbors has been a pleasant experience for me. I think just saying things like “…you might want to try this…,” or “I’m not sure about that, but I will do some research and get back to you on that,” can really encourage people and assist others as they work through gardening problems. (continued on page 6) to do classes and short presentations to clubs and groups around town. They are always grateful and just appreciate the opportunity to ask questions of another gardener. And I learn from their questions.

Charlotte: Most of my volunteer hours have been at Hilltop Garden and Nature Center. I have watched it change over the seven years that I have been involved. This past year I was very proud of two garden areas that I designed, a 20’ diameter circular Bee Garden and a 20’ x 26’ Cut Flower Garden. Among the things that these gardens were used for include:

1. I trained a number of volunteers about germination tests and how to see if any of the old seed could be used.
2. We had college student volunteers who helped transplant many of the seedlings using the plan that had been created as to placement by color.
3. Many of the cut flowers (in season and dried) were used in arrangements for sustainability conferences and also as part of the display at booths when Hilltop was looking to recruit more volunteers.
4. Many volunteers learned about seed saving and what the seed looks like when ripe because we allowed the many annuals in the gardens to go to seed; both gardens were in a tract in the middle of Hilltop’s five acres.
5. In the spring, the Bee Garden was flourishing with blue and white flowers and bees galore. Given that there are bee hives at the garden, hopefully we were supporting our own bees.
6. Come fall, the cut flower garden offered red, yellow, purple and orange flowers, drawing people to walk around all of the five acres to find sources of inspiration and exercise.

Any special friendships or relationship that you’ve developed as a result of being involved in the Master Gardener program?

Nancy: I can’t count the many friendships I have made in the last 12 years as a Master Gardener. We work together, learn together, and often have chances to laugh together. I know who to call when I need help. Not one Master Gardener has ever let me down when I needed help with something. I count many (continued on page 5)
of my Master Gardener friends as a very special group of generous, interesting, and helpful people.

**Charlotte:** I don’t have any special friends who are Master Gardeners. I find that ALL of the master gardeners are “the down to earth types” who are friendly and willing to share their knowledge.

*Anything regarding your volunteer hours that you’d like to share that I or others might not be aware of?*

**Nancy:** I think the time spent each year giving informal assistance and support to friends, family and neighbors has been a pleasant experience for me. I think just saying things like “…you might want to try this…,” or “I’m not sure about that, but I will do some research and get back to you on that,” can really encourage people and assist others as they work through gardening problems. I also have had opportunities to do classes and short presentations to clubs and groups around town. They are always grateful and just appreciate the opportunity to ask questions of another gardener. And I learn from their questions.

*Any particular thing you’ve learned as a Master Gardener that’s been particularly helpful to you?*

**Nancy:** I have learned so many things about sustainability, ecology, stewardship, science, planning, garden tricks, patience, and much more. I appreciate the balance of nature, weather, the cycle of life, and human/animal contacts so much more now than at other times in my life. My whole philosophy about conservation and protection has changed. I have become a ‘tree hugger” for sure.

**Charlotte:** Probably the most helpful thing that I have learned recently is how to make composting really work (even in the city proper). I realize that my initial Master Gardener training had a lot of the information about composting, but at the time, it seemed just too complex. As part of my education requirements, I got more education in composting and have actually put it into practice.

Both Nancy and Charlotte have been invaluable to the organizations where they have shared their time and knowledge. I have heard multiple times from current Hilltop manager Lea Woodward about what a vital role Charlotte plays in keeping things going at Hilltop, and I’ve heard from Master Gardener interns who go there to volunteer about what good guidance she provides. I have had the pleasure of working closely with Nancy while she served as the president of the MCMGA board, on the extension board for Monroe County, chair of the MCMGA annual spring Garden Fair, and in several other activities. Nancy is extremely organized, brings wonderful insight into working with people and organizations, and can be counted on to manage multiple projects at an exceptional level. Our organization is richer for the participation of both of these fabulous volunteers. I hope you will join me in offering congratulations to both of them in earning their Gold status and thanking them for volunteering in our community.
Garden Fair update

Committee lists were printed in the December Roots and Shoots. Be sure to check those lists if you are not sure for which committee you volunteered. It’s not too late to get your name on a list. Call Nancy White or the committee chair soon since some committees are already beginning their work. Committee chairs are as follows:

Physical Arrangements—David Dunatchik
Vendor—Karen King
Café—Evelyn Harrell
MG Information Boot—Susan Eastman,
Education Seminars—Jeff Schafer
Door Prizes—Judy Hawkins
MG Sales—no chair currently
Financial—Diana Young
Publicity—Nancy White

We are always looking for new vendors that would be of interest to our visitors. If you know of any companies or individuals who haven’t been at the Garden Fair in years past, be sure to send names and/or contact information to Vendor chair, Karen King.

We would like to start a photo file of past Garden Fairs. If you have interesting photos in your files, send them to Stephen Anderson who manages our website.

The Garden Fair coordinating committee meets the first Monday of each month at 5:30 p.m. MGMGA members are always welcome to attend if you have ideas or concerns for the committee. Call Nancy White for the monthly location if you plan to join us.

Need some tree planting information?

The Purdue Department of Forestry and Natural Resources and the PU Extension Service plan a winter special event to cover subjects such as choosing correct tree species, ordering, planting, soil types, weed control, and other related subjects. Three hours of education credit are offered. Whether you have a small space for planting or a large windbreak or wildlife habitat for development, you will gain important and helpful strategies.

Date—Wednesday, February 19, 1:00-4:00 p.m.
Place—Fulton County Fairgrounds, 1009 W. Third Street, Rochester, Indiana
Cost—$10
To register—send payment to RC and D Tree Planting Workshop, 15508 W. 700 N. Medaryville, Indiana 47957
For more information—call 219-843-4827
After members voted at our November holiday dinner, we are pleased to announce the first place winner of our photo contest is Robin Rothe. Robin received a gift certificate to Mays Greenhouse. Robin’s winning photograph is featured on the front cover of 2014 *folia and flora*, which will be published and distributed in January. Come to the January 28 meeting to receive your copy.

Second place in the photo contest was a tie between two photos by Nancy Miller and Donna Terry. These photographers receive certificates for their participation. All the submitted photographs in the contest may appear on other MCMGA publications throughout 2014.

Many thanks for all 22 of our entries this year. We appreciate the contributions these photographs will make to our publications throughout the year.

1. First place—Robin Rothe
2. Tied for second place—Nancy Miller
3. Tied for second place—Donna Terry
If you’ve found the last few Everybody's Home columns interesting, I suggest you get ahold of the December 23 issue of The New Yorker, which contains an article called The Intelligent Plant, by Michael Pollan. The premise of the article is that plants can sense and respond to so many environmental variables that they must have some brainlike information-processing system to integrate everything they sense and coordinate their responses. In other words, plants think and make decisions.

Plants have between fifteen and twenty distinct senses, including analogues of our five. It turns out that if plants don’t respond to hearing Mozart, as some have suggested, they do produce defensive chemicals if scientists play sounds of insects munching on leaves, and they do seek out buried pipes where water is flowing, even if the outside of the pipe is dry. Apparently they hear the water.

The tips of plant roots can sense gravity, moisture, light, toxins, microbes, and chemical signals from neighbors, among other things. If root tips sense an impenetrable object or a toxic substance ahead, they change course before they touch it. Roots can also tell if other roots around them are related and will restrain competitive growing if they are kin.

Because plants have to stay in one spot, they deploy biochemicals in response to environmental stimuli. Plants have three thousand chemicals in their vocabulary, more than the average number of words people use in their daily lives.

It also seems that plants can learn to ignore stimuli in the environment that don’t give them important information. Mimosa pudica plants fold their leaves quickly enough when they are touched or dropped for scientists to observe the motion. One scientist came up with a system to drop them every five seconds in sessions involving sixty drops. After just a few drops, some plants stopped folding their leaves. Some learned faster than others. By the end of the experiment, all of them kept their leaves open, apparently having decided that dropping didn’t mean anything. The mimosa plants also remembered what they had learned. Even twenty-eight days after the sessions had stopped, they still paid no attention to the drops. In similar memory experiments, bees forgot what they had learned after forty-eight hours.

When Pollan worried whether plants felt pain when they were eaten, one scientist pointed out that being eaten is part of plants’ evolutionary strategy, which includes modular structure and the lack of irreplaceable organs. Ninety percent of a plant can be removed and it will recover. But, the scientist continued, if plants are indeed sensitive and intelligent, we should treat them with respect, avoiding genetic manipulation and not growing them in monoculture, since plants organize themselves in widespread networks of different species that assist each other. In fact, one scientist suggested, in some respects, networks of plants are more sophisticated than the Internet. Michael Pollan’s article, The Intelligent Plant, in the December 23 issue of The New Yorker, will transform the way you look at your garden.
<table>
<thead>
<tr>
<th>Location</th>
<th>Time</th>
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<th>Contact</th>
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<tbody>
<tr>
<td>Hilltop Gardens</td>
<td>year around</td>
<td>various</td>
<td>Charlotte Griffin, 345-8128</td>
</tr>
<tr>
<td>MG Demonstration Garden</td>
<td>seasonal</td>
<td>various</td>
<td>Herman Young, 322-5700 Jeanie Cox, 360-3587</td>
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<td>MCMGA Garden Walk Committee</td>
<td>year around</td>
<td>select gardens and plan picnic</td>
<td>Evelyn Harrell, 339-0572</td>
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<td>Bloomington Community Orchard</td>
<td>seasonal</td>
<td>various</td>
<td>Stacey Decker, <a href="mailto:getinvolved@bloomingtoncommunityorchard.org">getinvolved@bloomingtoncommunityorchard.org</a></td>
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<td>Cheryl’s Garden at Karst Farm Park</td>
<td>summer</td>
<td>design and maintain</td>
<td>Linda Emerson, 345-2913 (cell)</td>
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<td>T. C. Steele SHS</td>
<td>seasonal</td>
<td>various</td>
<td>Davie Kean, 988-2785</td>
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<td>Flatwoods Park Butterfly Gardens</td>
<td>seasonal</td>
<td>various</td>
<td>Cathy Meyer, 349-2575</td>
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<td>MCMGA Horticulture Hotline</td>
<td>year around</td>
<td>inquiries &amp; research</td>
<td>Amy Thompson, 349-2575</td>
</tr>
<tr>
<td>MCMGA Speakers Bureau</td>
<td>year around</td>
<td>various</td>
<td>Amy Thompson, 349-2575</td>
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<td>MCMGA Newsletter</td>
<td>year around</td>
<td>write articles</td>
<td>Helen Hollingsworth, 332-7313</td>
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<td>MCMGA Web Site</td>
<td>year around</td>
<td>various</td>
<td>Stephen Anderson, 360-1216</td>
</tr>
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<td>MG Program Committee Member</td>
<td>year around</td>
<td>plan MG programs</td>
<td>Sandy Belth, 825-8353 Susan Lovell, 339-5914</td>
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<tr>
<td>Middle Way House</td>
<td>seasonal</td>
<td>various</td>
<td>Clara Wilson, 333-7404</td>
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<td>Wylie House</td>
<td>year around</td>
<td>various</td>
<td>Sherry Wise, 855-6224</td>
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<td>Mother Hubbard’s Cupboard</td>
<td>year around</td>
<td>education, resource</td>
<td>Kendra Brewer, <a href="mailto:garden@mhcfoodpantry.org">garden@mhcfoodpantry.org</a></td>
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<td>WonderLab Garden</td>
<td>2 times monthly</td>
<td>various</td>
<td>Nancy White, 824-4426</td>
</tr>
<tr>
<td>Hoosier Hills Foodbank</td>
<td>year around</td>
<td>various</td>
<td>Nicole Richardson, 334-8374</td>
</tr>
</tbody>
</table>

Remember to wear your badge when volunteering and keep a record of your hours.
Gardeners are often advised that a loamy garden soil is best for just about all plants. But just what is a loamy soil?

Soil is composed of many particles of varying sizes. Soil scientists have classified soil particles into three major groups: sand, silt and clay. Sand particles are the largest and tend to hold little water but allow good aeration. Clay particles are very small in size and tend to pack down so that water does not drain well and little or no air can penetrate. Silt particles are medium sized and have properties in between those of sand and clay.

A loamy soil, then, is one that combines all three of these types of particles in relatively equal amounts. Loamy soil is ideal for most garden plants because it holds plenty of moisture but also drains well so that sufficient air can reach the roots.

Many gardeners complain of their garden soil being compacted and/or poorly drained. Heavy, compacted soil can be rescued by the enduring gardener. Add a good amount of organic matter, such as compost, animal manure, cover crops or organic mulch materials, each year as the soil is worked. It may take several years, but eventually the soil compaction will be improved. Although adding some sand along with the organic matter is acceptable, adding sand alone is not advised. The organic matter offers several advantages that sand does not, including increased water- and nutrient-holding capabilities, in addition to improved aeration.

Highly sandy soils can be a problem since they do not hold much water and few nutrients, as well. Adding organic materials to a sandy soil will improve its ability to hold water and nutrients. You’ll need to add at least a two-inch layer of material to make a marked improvement. This translates to about 17 cubic feet of organic matter to cover a 100-square-foot area.

And remember that soil improvement is a program, not just a one-shot deal. You’ll need to continue applications at least once a year for several years to really change the nature of the existing soil.
Thirst aid for houseplants

It looks like cold weather is here to stay, so keep in mind that the typical household in winter is a hazardous place for houseplants. Although we grow them indoors, most houseplants are outdoor plants in their native climates. Tropical and subtropical species can be damaged by temperatures below 50° F, but being too warm in winter can also be a problem.

The air in most homes becomes extremely dry as furnaces force warm air through the rooms. It is not unusual for relative humidity (RH) inside the home to drop to 15 percent during the winter heating season. Most houseplants do best at about 35-45° percent RH.

Warm temperatures, coupled with low humidity, can cause plants to lose water faster than they can take it up. So, even though the soil may hold plenty of moisture, the leaves may begin to droop and/or turn brown along the edges. Hot, dry, stale air also creates a favorable environment for spider mites to become troublesome.

The most effective way to increase RH for the comfort of both plants and people is to run a humidifier. Grouping plants together on pebble trays filled with water can also help. However, misting plants occasionally with a spray bottle adds such temporary moisture that it does not effectively change the relative humidity. Keep all plants away from hot air drafts near heat registers. Ferns are especially sensitive to dry air, so take care to place them in a protected area.

Although some plants may grow more slowly during the short days of winter, dry air can cause them to need to be watered even more frequently than when they were actively growing. Monitor the soil moisture to be sure that plants are getting watered as needed.

In the grow

Q. It would be grand to learn what this plant is. (Submitted from Kewanna, Ind.)
A. That is Fritillaria imperialis, commonly known as crown imperial. This spring-flowering bulb reaches 2-3 feet tall and blooms in yellow, orange or red. Crown imperial thrives in deep, moist soil and performs well in full sun or light shade. The bulbs are widely available from local garden centers and mail-order bulb suppliers for fall planting.
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Master Gardener Calendar

Saturday, January 25, 8-4 p.m., The Show for Gardeners by Gardeners, Porter County Expo Center (see page 2)

Tuesday, January 28, 6:00 p.m., general meeting, extension office meeting room, two hours education credit (see page 1)

Wednesday, February 19, 1:00-4:00 p.m., Tree Information, Fulton County Fairgrounds, 1009 W. Third Street, Rochester, Indiana (see page 6)

Saturday, March 1, 8-3 p.m., 7th Annual Spring Tonic, Orange County Community Center (see page 2)