Today, decorating for the holidays with fresh greenery is more prevalent than ever. Greenery such as cedar, ivy, pine and holly add a fresh look and natural scent to our homes.

Dried evergreens can become flammable when in contact with a heat source such as a candle flame. Make sure that any wreaths, roping and garlands that you bring indoors are as fresh as possible. Check needles by bending them. They should be flexible and not break. Avoid greenery that are shedding or that have brown, dry tips.

Before bringing the greenery inside, soak them in water overnight to rehydrate them. Commercial sprays are available that can be used to provide some fire resistance.

Never place fresh greenery near heat sources, such as space heaters, heater vents or sunny windows. Be careful of wreaths used on the front door, if there is a glass outer door that receives direct sunlight. Keep greenery away from candles and fireplaces. If you use lights near your green arrangements, make sure that they stay cool, and if outside, that they are rated for exterior use.

Check your decorations every couple of days for freshness. If greenery are becoming dry, either replace or remove the dry portions. Make sure to discard dry greenery away from the house or garage to prevent a further fire hazard.
Thanksgiving 2016 is just a memory now. December is a very busy month in the lives of many, but let us give November its due. We always recognize two holidays and in many years we add an election, too. It can be challenging to find a few minutes for the subject of this newsletter—gardening and those who practice it. Speaking of those who practice gardening, those who want to spend time with other gardeners, those who want to expand their knowledge of gardening, are there those among us who still need to renew their membership in the Master Gardener Association? Do not put it on your to-do list, to be lost in the long list of things needing to be done. Do it now, even if you have to abandon this page momentarily to go to the website, www.mcmga.net, and download the form, fill it out, and mail it to the extension office. The pages of *folia and flora* will be assembled soon. Time is of the essence now. Please get those forms into the office before December gets any busier.

Susan Eastman’s photo of her backyard landscaping will grace the cover of the 2016 issue of *folia and flora.* As the December darkness deepens, it is very pleasant to recall the many photos of flowers and landscapes that competed for that honor at the Harvest Dinner last month. That was just one of the many highlights of the evening. The buffet tables were filled with a satisfying range of dishes, the Sounds of Indiana entertained us, and centerpieces on every table went home with the lucky winners of Bob Baird’s educational contest. Sydley Skolnik used another table to feature our cookbooks. Nancy Deckard was presented the award for the most entries in the Monroe County Fair. Jonas Carpenter and Salem Willard of Bread and Roses Nursery demonstrated many ways to correct challenging topography in our landscapes and how to use materials from the natural world to enhance and create order in our gardens.

2016 promises to be a good year for the organization, even with the loss of good leadership that is sure to be felt with the retirement of several board members. Susan Lovell gave three years of service putting the finer points on our meetings with good food and good organization during a time when those procedures were being changed. Helen Hollingsworth will no longer be spending many hours of every month for the past 10 years to wrestle this newsletter into an outstanding representation of this organization’s many activities. Diana Young is putting down her abacus and retiring from her position as treasurer after 12 years of service. Simply put, a lot of money comes into the organization each year and a lot of money goes out to pay our bills, which leaves only the slimmest of margins in the black ink by year’s end. The budget has to be closely monitored to avoid the red ink.

Many thanks to Larime Wilson, Cindy Benson, and Lea Woodard who worked hard to present a slate of officers for election at the Harvest Dinner to step into those shoes of retiring board members. Abe Morris will return as records director. New to their jobs are Jeff Schaffer, meeting director; Heather Daley, journalist; Dorothy Cole-Kiser, treasurer. Trish Gustaitis as vice president will help to shape this new position. See you next year!
Help is still needed for some Garden Fair committees. If you haven’t had a chance to sign up, please consider adding your name to a committee list. Members from the 2015 intern class are especially urged to join the fun as we plan the 2016 Garden Fair scheduled for Saturday, April 2, at the Indiana National Guard Armory on South Walnut Street. Many committees do their work long before April 2. All committees and their responsibilities were listed in the October issue of *Roots and Shoots*, so take a look and contact Nancy White with your choice. Volunteering on a Garden Fair committee gives members a chance to gain volunteer hours during the months that are not conducive to outdoor work. And it’s nice to start the spring growing season with some already-gained volunteer hours. The Garden Fair is a big event and work is lighter when many share the load. Please join a committee—we need you!

Each year at the Garden Fair, the Master Gardener booth gives away free garden catalogues, magazines, and books. If you have some you no longer need and would like to donate, bring them to the January general meeting or contact Susan Eastman, who is the chair of the Garden Fair Master Gardener booth.

Also at the January 19 general meeting, we will distribute the Garden Fair announcement cards. These are postcard-size to send or give to friends, neighbors, and relatives. The cards contain information about the time, place, and other details. Members can help increase our audience by passing these cards on to folks who might like to attend.

### MCMGA memberships are due

It’s time to renew your MCMGA membership. By renewing immediately, you will be assured that your contact information will included in *folia and flora*, our membership guide, which will be distributed at our Tuesday, January 19 general meeting. See page one for meeting information.

Membership renewal blanks are available for printing on our website, [mcmga.net](http://mcmga.net).
Holiday harvest dinner well received

By Susan Lovell

On Tuesday, November 10, we celebrated the many volunteers, programs, and speakers of 2015 with our annual harvest dinner. The dinner table was filled with healthy, tasty food and lots of variety. Special thanks go to our refreshment committee who helped set up tables, arrange the food and dessert tables, and prepared drinks. The committee included Mary Cusack, Gloria Noone, Pam Hall, Tom Lovell, Peggy Rees-Krebs, Cindy Benson, Mary Hoffman, Penny Austin, Muff Johnson, and Evelyn Harrell. All took turns making sure the food tables were neat and drinks replenished. The floral arrangements were planned and made by Bob Baird, Ann McEndarfer, and Nancy Page. Thanks to all! The centerpieces were lovely. I especially enjoyed Bob’s Leaf Quiz which made me aware of how much there still is to learn. There were many extra hands who pitched in to help as they arrived for the night—all are so appreciated.

Our speakers for the evening were Jonas Carpenter and Salem Willard of Bread and Roses Nursery. Their topic, *Edible and Beautiful Landscapes*, inspired us with their knowledge and passion for their work. We hope they will come again because they have so much knowledge to share. Also, we had the treat of a fun doo-wop performance from the *Sounds of Indiana* chorus. We could sing along because we knew the words! Thanks to Robin Nordstrom and Diana and Herman Young, who stayed to help close up for the evening. I am sure there are many thank yous that I’ve missed, but please know that evenings like this could not happen without the willingness of so many to help, and you are all much appreciated.

As we look ahead, we begin the new year with a new meetings director, Jeff Schafer, in the job I’ve had for several years. Our first meeting will be on January 19 at 6:30 p.m. at the extension office. The refreshments committee for the January meeting will be Mary Cusack, Karen King, Ann McEndarfer, Nancy Page, Tom Lovell, and Mary Hoffman. For now, everyone enjoy the holidays and dream of spring.

Finally, my personal thanks to Helen Hollingsworth for her constant support and encouragement in my job as meetings director. As a new member, first time board officer, and novice writer, she was always there with a wise word and a steady hand.
Clay soil: a mixed blessing, but easily corrected
By Jennifer Schutter, University of Missouri Extension

You dig your first spadeful of soil in your new garden and discover you have a shovel full of clay.

But if your garden is more clay than loam, not all is lost. You can improve clay soil.

Clay soils present several obstacles that need to be overcome. It tends to compact easily and form a hard, dense layer on the surface that prevents water, air and fertilizers from moving downward.

This tendency toward compaction reduces air space in the soil. This can lead to plants developing shallow root systems, which makes them more prone to drought stress.

There is just one practical way to improve clay soil: working in plenty of organic matter. Common sources of organic matter include peat moss, decomposed animal manures and compost made from leaves, plant refuse or grass clippings.

Another good source of organic matter is green manure. This is a crop, such as annual ryegrass, that is grown and then turned under when it’s one-third to one-half grown and is still green and lush.

Clay soil improvement is as easy as digging organic material into the soil once a year, in either spring or fall.

Spread anywhere from a 1- to 4-inch layer of organic matter on the soil and work it into the top 6-10 inches. Remember, organic matter breaks down over time, so it’s best to replace it once a year.

However, I do not recommend annual application of organic matter for bulb gardens or perennial flowers. Instead, work organic material in when you plant new bulbs or flowers and then mulch in the fall.

When planting new trees and shrubs, don’t put organic material into the planting hole. Instead, work it into the circle of soil skirting the tree or shrub. Be sure to go out 2-5 feet in all directions from the trunk to improve the soil where the roots will eventually grow.

Clay soils aren’t all bad. They hold water and nutrients very well. Clay particles hold onto ammonium and trace elements like potassium, calcium and magnesium. This makes it a fertile soil. All you need to do is break it up a bit so water and air can flow freely.

Annual strawberry All-America Selections Winner
By Rosie Lerner, Purdue Extension Consumer Horticulturist

For the first time, All-America Selections has selected a strawberry cultivar.

Strawberry Delizz is an F1 hybrid grown from seed. Although strawberries are perennial plants, Delizz is grown as an annual and promises harvest throughout the season. It was developed by ABZ Seeds, a Dutch strawberry breeding company.

The uniform, compact plants reach about 10-24 inches tall and about 12 inches wide—ideal for containers, hanging baskets or small garden plots. Plants require full sun and good drainage for maximum production. First harvest can be expected in 120 days from seed, 60 days from transplant.

According to the breeders, Delizz plants purchased at the garden center can yield fruit up to four weeks if grown indoors close to a window in full sunlight. Grown outdoors, the plants should produce for at least three months during summer to early autumn.

Harvest frequently for best fruit quality and to encourage additional flowering and fruit set. Average harvest should be about 45 small-medium sized berries per plant.

It's too soon to know what the pricing will be for this new concept in home strawberry gardening. Your local garden center will know if it plans to stock it for the 2016 growing season.

AAS is an independent, nonprofit organization that tests new varieties and introduces what it considers to be the best garden performances as AAS winners. They also are selected based on performance in the greenhouse. Although no plant offers a guarantee of success in an individual garden, the AAS winners have proven themselves worthy over a broad range of growing conditions.

You can try these new selections alongside your old standbys so you'll have a means of comparison.

AAS winners should be available through local garden centers and mail-order catalogs next spring. More information about these and previous years' winners is available at http://www.all-americaselections.org/.
Newly planted trees: strategies for survival
By Donald L. Ham & Larry R. Nelson, Clemson Extension Service

Hundreds of thousands of trees are planted along city and community streets and on other public property throughout the United States each year. Unfortunately, many of these trees, perhaps 50 percent or more, do not survive beyond one or two years. Why?

Transplant shock

Most newly planted trees are subject to stress-related problems due to tremendous root loss when dug at the nursery. This condition, commonly called transplant shock, results in increased vulnerability to drought, insects, diseases and other problems. To a greater or lesser degree, transplant shock lasts until the natural balance between the root system and the top or crown of the transplanted tree is restored. Of those newly planted trees that do not survive, most die during this root-establishment period. A tree’s chance of survival can be drastically improved through practices that favor establishment of the root system. This involves regular care during the first three years following transplanting.

Tree roots and transplanting

For an undisturbed, healthy tree, the root system is normally very shallow. Even the major structural roots grow almost horizontally. The root system normally extends far beyond the branch spread, and fine roots that absorb water and nutrients are located very near the soil surface, usually in the top four to ten inches. A natural balance exists between the roots (where water is absorbed) and the top of the tree (where water is utilized and transpired to the atmosphere).

When a tree is dug for transplanting, more than ninety-five percent of the absorbing roots are severed. With less than five percent of its root system remaining, the newly transplanted tree suffers from water stress. The crown is capable of losing water faster than it can be absorbed by the limited root mass. Water stress, in turn, can reduce the ability of leaves to produce carbohydrates (energy), diminish the growth of all parts of the tree, and subject the tree to many other environmental and pest-related problems. Combined, these problems all contribute to "transplant shock" that can kill the tree.

Generating root systems of newly planted trees

Successfully establishing a transplanted tree depends primarily on rapid root generation. However, keeping the top of the tree alive and healthy until the natural balance between the roots and top is restored is essential. Initial root development of a newly planted tree is supported by energy (carbohydrates) stored within the trunk, branch, and root tissues. Continued root growth during the establishment period depends on the leaves of the tree producing high levels of carbohydrates during the growing season, especially during the first year following transplanting.
When winter temperatures dip below zero and winds howl, gardeners may worry that their trees and shrubs are taking a beating. No need for doom and gloom—most hardy landscape and orchard plants are reasonably able to cope with most of our winters.

Many factors influence plant injury, including plant species and cultivars, degree of plant dormancy and overall plant health. How low the temperature goes, how long it stays there, and how well acclimated plants are at the time are additional factors. Severe lows coupled with high winds may cause some dieback of twigs and winter burn on ornamentals, especially evergreens. Broad-leaved evergreens are the most susceptible. Winter dessication injury occurs when absorption of water by the roots cannot keep up with moisture lost by the foliage (transpiration). This occurs mainly on sunny days, especially if it is windy and the soil water is frozen—the plant can’t absorb it—or if water is in short supply. Injury appears as brown leaf margins or needletips at the onset of warm weather.

Generally, flower buds are more sensitive to cold than leaf buds, so flower buds on some fruit trees such as peaches, nectarines and sweet cherries may suffer damage. However, it is very likely than some flower buds will survive, enough for at least a partial crop. Blackberries, blueberries and grapes may also have significant bud loss, particularly on more tender cultivars. Species that are marginally hardy will likely suffer dieback, or possibly death, but this may not be obvious until spring thaw. Plan to delay major pruning until after winter damage can be assessed.

**Cookbooks are available!**

Want a perfect gift this month for a friend, neighbor, or family member? Consider giving a Monroe County Master Gardener cookbook as a gift—useful, easy to wrap, and all for the low cost of $8. Call or email Sydley Skolnik (812-679-7694 or s-skolnik@comcast.net) to arrange to receive your cookbooks.
<table>
<thead>
<tr>
<th>Time</th>
<th>Jobs</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloomington Community Orchards, 2120 S. Highland Avenue [Winslow Woods Park] <a href="http://www.bloomingtoncommunityorchard.org">www.bloomingtoncommunityorchard.org</a></td>
<td>seasonal maintenance, all levels of expertise welcome</td>
<td>Stacey Decker <a href="mailto:getinvolved@bloomingtoncommunityorchard.org">getinvolved@bloomingtoncommunityorchard.org</a> Growing fruit for the community through educational opportunities</td>
</tr>
<tr>
<td>Cheryl's Garden at Karst Farm Park, 2450 S. Endwright Road, Bloomington</td>
<td>during growing season help w/ design and maintenance</td>
<td>Linda Emerson 812-345-2913 (cell)</td>
</tr>
<tr>
<td>Courthouse Native Garden Downtown Square</td>
<td>seasonal maintenance</td>
<td>Todd Stevenson <a href="mailto:tstephenson@co.monroe.in.us">tstephenson@co.monroe.in.us</a></td>
</tr>
<tr>
<td>Growing Opportunities Hydroponic Garden Stone Belt Facility—Tenth St., Bloomington</td>
<td>year around education &amp; maintenance</td>
<td>Nicole Wooten nicolesinscap.org</td>
</tr>
<tr>
<td>Hilltop Garden &amp; Nature Center 2367 E. Tenth St., Bloomington <a href="http://www.hilltop.indiana.edu/~landscape/hilltop">www.hilltop.indiana.edu/~landscape/hilltop</a></td>
<td>year around maintenance of gardens for shade, herbs, pollinators, containers</td>
<td>Charlotte Griffin 812-345-8128</td>
</tr>
<tr>
<td>Hinkle-Garton Farmstead 2920 E. Tenth St., Bloomington <a href="http://www.facebook.com/HinkleGartonFarmstead">www.facebook.com/HinkleGartonFarmstead</a></td>
<td>year around herb, orchard, butterfly, &amp; woodland gardens, invasives removal, soil reclamation</td>
<td>Danielle Bchant-Bell 812-336-6141 or 812-360-6544 (text) <a href="mailto:hgfvolunteers@gmail.com">hgfvolunteers@gmail.com</a></td>
</tr>
<tr>
<td>Hoosier Hills Food Bank The Food Bank garden is located at Will Detmer Park, 4140 West Vernal Pike</td>
<td>year around plant, harvest, and compost; training provided</td>
<td>Bobbi Boos Call Ryan Jochim 812-334-8374 hfoodbank.org/volunteer.php</td>
</tr>
<tr>
<td>Middle Way House Roof Top Garden <a href="mailto:garden@middlewayhouse.org">garden@middlewayhouse.org</a></td>
<td>seasonal scheduled workdays</td>
<td>Toby Strout, Director 812-333-7404</td>
</tr>
<tr>
<td>Mother Hubbard's Cupboard 1100 W. Allen St., Bloomington mhcfoodpantry.org/getinvolved/volunteer</td>
<td>year around seasonal garden tasks</td>
<td>Kendra Brewer, Coordinator <a href="mailto:garden@mhcfoodpantry.org">garden@mhcfoodpantry.org</a></td>
</tr>
<tr>
<td>Wonderlab Garden 308 W. Fourth St., Bloomington</td>
<td>seasonal education, supervision of volunteers, maintenance</td>
<td>Nancy White 812-824-4426 <a href="http://www.wonderlab.org/exhibits/wondergarden">www.wonderlab.org/exhibits/wondergarden</a></td>
</tr>
<tr>
<td>Wylie House 307 E. Second St., Bloomington</td>
<td>year around maintenance of heirloom garden, seed saving</td>
<td>Sherry Wise 812-855-6224 <a href="http://www.indiana.edu/~libwylie/garden.html">www.indiana.edu/~libwylie/garden.html</a></td>
</tr>
<tr>
<td>MCMGA Volunteer Opportunities</td>
<td>year around various</td>
<td>Demo Garden: Herman Young (812) 322-5700 Garden Walk: Mary Jane Hall (812) 345-3985 Newsletter: Helen Hollingsworth (812) 332-7313 Program: Sandy Belth (812) 825-8353 Website: Stephen Anderson (812) 360-1216 MCMGA help: Amy Thompson (812) 349-2572</td>
</tr>
</tbody>
</table>

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
Christmas cactus FAQs
By Rosie Lerner, Purdue Extension Consumer Horticulturist

Christmas cacti are not only popular holiday gift plants but also the subject of frequent debate among gardeners. There appears to be much confusion about these unique tropical cacti regarding care, maintenance, and especially on how to get them to re-bloom. The following tips address the most frequently asked questions.

We typically think of cacti as being heat tolerant, but Christmas cacti will keep their blossoms longer in cooler temperatures. Keep the plant in a well-lit location away from drafts from heat vents, fireplaces, or other sources of hot air. Drafts and temperature extremes can cause the flower buds to drop from the plant before they have a chance to open.

Christmas cactus is a tropical type plant, not quite as drought tolerant as its desert relatives and in fact may drop flower buds if the soil gets too dry. The plants will wilt when under drought stress. Water thoroughly when the top inch or so of soil feels dry to the touch. The length of time between watering will vary with the air temperature, amount of light, rate of growth, and relative humidity.

The plant does not particularly need to be fertilized while in bloom, but most gardeners enjoy the challenge of keeping the plant after the holidays for re-bloom the next year. While plants are actively growing, use a blooming houseplant-type fertilizer and follow the label directions for how much and how often to feed.

While the Christmas cactus can adapt to low light, more abundant blooms are produced on plants that have been exposed to more light intensity. Keep your plants in a sunny location indoors. Plants can be moved outdoors in summer, but keep them in a shady or semi-shady location. Leaves may start to turn a bit red if exposed to excessive light. Too much direct sunlight can actually burn the leaves or may cause them to become limp. When it's time to bring the plants back inside in the fall, slowly adjust the plants to life indoors by gradually increasing the number of hours they spend indoors each day.

Pruning your Christmas cactus after blooming will encourage the plant to branch out. Remove a few sections of each stem by pinching them off with your fingers or cutting with a sharp knife. These sections can be rooted in moist vermiculite to propagate new plants.

Christmas cactus will bloom if given long uninterrupted dark periods, about 12 hours each night. Begin the dark treatments in about mid-October to have plants in full bloom by the holidays. You can place the plants in a dark closet from about 8:00 p.m. to 8:00 a.m. each night for 6-8 weeks or until you see buds forming. Christmas cacti will also bloom if they are subjected to cool temperatures of about 50-55° F, eliminating the need for the dark treatments. Plants should be blooming for the holidays if cool treatments are started by early November.
In the grow
By Rosie Lerner, Purdue Extension Consumer Horticulturist

Q. I have noticed lately that our three big, lovely larches are losing needles on their bottom half. The needles have a banded pattern of color, and I fear larch needle blight. How can I confirm or reject this hypothesis? Is there anything we can do to treat them? – JC

A. Specific diagnosis will require more than just these photos. I recommend sending samples of your trees to the Purdue Plant and Pest Diagnostic Lab. There is a small fee of $11, but a proper diagnosis can save you many more dollars in the long run. An appropriate treatment plan can then be advised based on an accurate diagnosis.

You can start with submission of digital images—the lab may request that you send in real samples of the trees, but there usually would not be an additional charge.

For more information and instructions for sample submission, see www.ppdl.purdue.edu.

Q. Attached is picture of a white ash. Leaves in the center are missing.

Also, trees in our area are also partially bare or completely bare after winter. Can anything be done to save them or is it permanent? – KA

A. There are a number of potential diseases/insect pests on white ash—like the previous question, diagnosis would require additional photos and possible real sample of the branches. One thing tree owners can do to determine potential for recovery would be to inspect a few of the affected twigs to look for live bark and buds—these would show green tissue when cut/scraped with a sharp knife. Dead buds and twig bark will be brown and likely dry and brittle. If portions of the twigs are dead, you can prune out the damaged branches by cutting back to healthier portions of the tree. For large trees, this may be a job best left to professional arborists.

For more information on hiring an arborist, see https://www.extension.purdue.edu/extmedia/fnr/fnr-faq-13-w.pdf from Purdue Forestry and Natural Resources.
Helping others grow!

Visit us on Facebook!

2015 MCMGA Board

President: Evelyn Harrell  812-339-0572 ear4841@comcast.net
Vice President—Programs: Susan Lovell  812-339-5914 smlovell@indiana.edu
Vice President—Education: Sandy Belth  812-825-8553 belthbirds@aol.com
Secretary: David Dunatchik  812-332-2331 dddunatchik@att.net
Treasurer: Diana Young  812-339-0040 young-diana@att.net
Journalist: Helen Hollingsworth  812-332-7313 hhollin59@att.net
Director—Communications: Stephen Anderson  812-360-1216 stephen_aee@yahoo.com
Director—Records: Abe Morris  812-606-5577 abemorris7@gmail.com
Director at Large: Mary Cusack  812-824-6366 marycus@gmail.com
Acting Fair Board Representative: Diana Young  812-339-0040 young-diana@att.net
Past President: Nancy White  812-824-4426 nwhite38@hotmail.com
Extension Educator: Amy Thompson  812-349-2575 athompson@purdue.edu

Master Gardener Calendar

Tuesday, January 19, 2016, 6:30 p.m., MCMGA general meeting, extension meeting room; program: Heirloom Seeds presented by Roger Hartwell, heritage seed researcher

Saturday, January 23, 2016, 8:00 a.m. – 4:00 p.m., Porter County MG Association, 13th Annual Gardening Show, Porter County Expo Center, 215 Division Road, Valparaiso, Indiana, garden presentations, demonstrations, and booths, admission $10, free parking