



Roots and Shoots



Cut back perennials now or later?

By Rosie Lerner, Extension Consumer



Gardeners often ask, "When is the best time to cut back the dead tops of herbaceous perennials (stems die back to the ground each year)?" "Should we cut them in fall as the tops fade?" "Or wait until spring just before new growth begins?" The answers depend, in part, on the specific plant and whether disease or insect pests are a factor.

For most healthy plants, leaving plant tops over winter is fine and, in many respects, preferable. Many species retain dried seed heads and foliage that may have aesthetic value. Ornamental grasses are at their best in fall and winter.

And, if you don't cut back the tops, your native wildlife will thank you! Seed heads, fruits, stems and foliage provide food and shelter. Although late-season bloomers, such as brown-eyed Susans and coneflowers, may have turned brown, birds still feed on the seed. Many butterflies overwinter on plant debris.

Allowing plant tops to remain over winter can also help collect leaves and snow for insulation and moisture. For some marginally hardy perennials, like garden mums, waiting until early spring to cut back the dead tops can actually improve a plant's chances of survival.

And, of course, leaving the tops in place will remind you where the plants are, in case you're thinking of adding more plants or rearranging the elements of the garden before spring growth begins. (continued on page 3)

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Special points of interest:

- *Emerald Ash Borer University webinars are free*
- *Have you looked at allium bulbs lately?*
- *Tulip trees have been around for over 100 million years*
- *There's a Garden Fair committee to fit your needs*
- *It's time to renew your MCMGA membership*

Member news



By Evelyn Harrell

On September 24 about 60 members attended the September general meeting to hear Putnam County Extension Educator Mark Evans discuss *Cover Crops for Home Gardeners*. Mark made his presentation both informative and entertaining. Several follow-up questions indicated a lot of interest in following his experience and advice. Our second speaker was unable to join us, so the educational portion of the evening was somewhat shortened. Amy Thompson has authorized 1.5 hours of education credit for Mark's presentation.

An amazing spread of snacks from the refreshment committee got those glucose levels up and attention spans on alert. Thanks to all of the committee members for helping us pay attention and be able to absorb new information.

Next to the front of the room near the podium was the new Master Gardener Floor Display that was purchased from Purdue. It's brightly colored and attention-getting. It will be perfect for announcing the presence of Master Gardeners wherever it is displayed. It's very portable and easy to set up. Of course, it will be prominently positioned at the Monroe County Fair and at our own Garden Fair. If you have a suggestion where it might be of value to inform the public, please forward your idea to Amy.

November holiday dinner and general meeting is on November 12

Members were asked to take note of the unusual date for our November holiday dinner and general meeting. The meeting will be Tuesday, November 12, at Sherwood Oaks Christian Church. Julio Alonzo from Hoosier Hills Food Bank will be our speaker, and members are asked to bring food items to contribute to the pantry. The holiday dinner menu has changed this year. Instead of lunch meat sandwiches, members are asked to include main-dish casseroles in the list of possible choices for the pitch-in. Some may find it a difficult decision to make, because no one wants to see fewer incredible desserts or delicious side dishes.

Renew your membership

Membership forms were available for those present. If you did not pick one up, renewal forms are available at www.mcmga.net. Please get your renewal form returned by November 1 in order to meet publication deadlines.

Demonstration Garden committee

A committee is forming to discuss the Demonstration Garden. Committee members are Abe Morris, Clay Slaughter, Tom Lovell, Jeannie Cox, Diana and Herman Young, Joanna Howe, and Amy Thompson. If you wish to join the committee, please contact Jeannie Cox at jcbiker99@yahoo.com.

Check out MCMGA on Facebook

The MCMGA Facebook page can be found at <https://www.facebook.com/pages/Monroe-County-Master-Gardener-Association/298126543646583>.

Free emerald ash borer webinars available

Submitted by Amy Thompson



Below is information on EAB University Fall Webinar Series. These live sessions will provide an opportunity for participants to ask questions of the session presenter and moderators. For information, contact Robin Osborne with MSU at robinu1@cns.msu.edu.

To register and learn more, log onto http://www.emeraldashborer.info/eab_university.cfm

Fall 2013—EAB University—always at 11:00 a.m. EDT

Date	Speaker	Topic
October 10	Juli Gould USDA APHIS	EAB Biocontrol: Progress & Possibilities
October 24	Clint McFarland USDA APHIS	US Regulatory Measures to Control Invasive Species and Limit Introductions
November 7	Randy Krouse City of Milwaukee	Building an EAB Management Program from the Ground Up: Milwaukee's Perspective
December 5	Eric McConnell Ohio State University	Economic Impact & Management of EAB on Woodlots, Classic Wood Utilization

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On the other hand, plants with disease or insect pest troubles should be pruned back in fall to reduce the chances of carryover to the following season. Sanitation is one of the best investments gardeners can make in reducing problems for next season. Peonies and Rudbeckia with blackened foliage should definitely be cut back in fall. The same is true for bee balm and phlox, which are routinely plagued by powdery mildew. Removing iris and asparagus foliage in the fall reduces overwintering sites for the iris borer and asparagus beetles, respectively.

Badly damaged or infested foliage can and should be removed as soon as possible. Otherwise, wait until after several hard frosts have killed back the tops. Cut back the tops to about two inches above the soil. Hand pruners and hedge clippers work fine, if you have just a few plants to cut back. But for larger plantings and large clumps of ornamental grasses, a power hedge trimmer works well.

Tulip tree has long history

By Helen Hollingsworth

A tulip tree, sometimes called tulip poplar or yellow poplar, is easy to spot; it grows 100 feet tall (or more), has distinctive, good-sized leaves with four pointed tips, and in summer produces a yellow bloom resembling a tulip. The tulip tree, named Indiana's state tree in 1931, is native to Eastern North America, ranging from Florida and Louisiana to lower New England and west to Michigan.

Locally, tulip trees suffered from both drought and aphid infestation a few years ago. Evidence of these problems persists on some tulip trees; you'll notice lower limb dieback. However, many local tulip trees are showing good recovery.

In September, retired IU Professor David Dilcher and a Russian colleague, Dr Mikhail Romanov from the N. V. Tcitin Main Botanical Garden, Russia, announced their research that suggests the tulip tree is a very old species dating back to the time of dinosaurs, more than 100 million years ago. The two researchers used advanced technologies to compare fossil flowers and fruits that Dilcher found in Kansas in 1975 to flowers and fruits of modern day tulip trees. The result of their research was published in the September issue of *American Journal of Botany*.

So the next time you glance up at a tulip tree, reflect on the tulip tree ancestors that grew in similar environments over 100 million years ago. Dilcher writes, "The fact that the tulip tree family has survived and evolved for more than 100 million years is relevant to understanding how species have developed in the past and how they might fare in the future given changing climate and other factors."

Bibliographic information: Mikhail S. Romanov and David L. Dilcher. 2013. Fruit structure in Magnoliaceae s.l. and *Archaeanthus* and their relationships. *Am. J. Bot.*, vol. 100, no. 8, pp. 1494-1508; doi: 10.3732/ajb.1300035

Spring bulbs are arriving

By Nancy White

Have you ordered your spring bulbs yet? Bulb catalogues start arriving in summer, but many of us postpone ordering until cooler weather. It's not too late to put in your order or to visit a local garden center to see what's available.

If you have deer problems (who doesn't?) or just like something different, consider the exotic allium. A member of the onion family, (allium is Latin for "garlic") deer really dislike its taste and smell so allium can be planted where other bulbs are in danger from our four-footed friends. Allium are seldom affected by disease and make nice cut and/or dried flowers. They come in a high impact array of sizes, shapes and colors; some even have a
(continued on page 5)

November holiday dinner and general meeting



By Susan Lovell

Our annual holiday dinner and general meeting is scheduled on Tuesday, November 12, at 6:30 p.m. at Sherwood Oaks Christian Church. Our board recommended a change in format, so this year's dinner will be a pitch-in for all food items.

We will need volunteers to organize the serving tables, keep tables presentable, refill drink containers and clean up afterwards. If you can help, please email me at smlovell@indiana.edu.

The evening's speaker will be Julio Alonzo, Executive Director of the Hoosier Hills Food Bank. He will be discussing *The Past and Future of the Hoosier Hills Food Bank*. We are asking that you check your pantry and bring donations to help stock the Food Bank for the winter season. You will earn one education hour for attending this program.

Special thanks to our September refreshment committee, Karen King, Marilyn Brinley, Marilyn Bourke, Ivy McCammon, Tom Lovell, and Jessica Wilson. The beautiful fall decorations were provided by Mary Hawkins and added so much to the atmosphere of the meeting room.

Finally, I was so pleased to see several members signed up for our Program Planning Committee. Our first meeting will be scheduled soon. If you have an idea for a program or a speaker but don't feel you can serve on the committee, please email me with your ideas and/or suggestions at smlovell@indiana.edu.

Spring bulbs are arriving (continued from page 4)

fragrance. They seem to tolerate difficult soil areas and will thrive in shade but do like a reasonable amount of sun.

Member Vina Kinman has placed her giant purple specimens as sentries to her back garden gate. Frequent deer visitors have never bothered them, Vina reports. Most suppliers suggest using some bulb fertilizer when planting and also after blooming occurs. Some varieties that have good reputations are *Silver Spring* with a 4" flower and in shades of white, pink, and a little green. Others are *White Giant*, *Ambassador*, *Globe Master*, *Drumstick*, *Schubertii* (this has pink starbursts), *Gladiator*, and *Pinball Wizard*. Take a look at the many low-growing varieties that also add interest and color. Be brave, take a look at your favorite bulb catalogue, hard copy or on-line, and see what allium you want to try for 2014.

Garden Fair news

By Nancy White



If you like to plan ahead, note on your 2014 calendar that the MCMGA Garden Fair is just six months from now. That seems like a long time, but planning a large event like the annual Garden Fair will take all that time to accomplish.

Committees are being formed now; consider signing up to do some planning work this winter and all time spent will gain you volunteer hours. If you might like to arrange for our education seminars presented on Fair day, the education committee is for you. If you might like to write articles, distribute posters and other publicity items, the publicity committee can use you. There are nine committees, all with volunteer jobs that help make the Fair a successful community event.

If you missed the sign-up sheets at our September meeting, you can contact Nancy White at nwhite38@hotmail.com or 824-4426 to get on the right committee list for you.

Announcement of America in Bloom winners

By Nancy White

America in Bloom has announced its 2013 winners at the recent symposium in Orlando, Florida. This year Greater Racine, Wisconsin was first prize winner in the population category for communities over 50,000 residents. Bloomington won that same category in 2010, and a group of community residents including Monroe County Master Gardeners accepted the honor in St. Louis. MCMGA members worked for many months on Bloomington in Bloom activities.

Other population category winners this year were Echo, Oregon; Estes Park, Colorado; Demopolis, Alabama; Holliston, Massachusetts; Calabasas, California; Winter Park, Florida; and Holland, Michigan. Greendale, Indiana won an outstanding achievement award for its sustainable park system.

America in Bloom was founded in 2001 in Ohio, and communities across the United States can apply to be considered. Entrants in each category are judged on a series of set criteria. In 2010, Bloomington also entered, and won first place in the urban forestry category.

BOGA Fall Plant Swap

The Bloomington Organic Gardeners Association (BOGA) will host a free plant swap on Saturday, October 5, from 9:00 a.m. to 1:00 p.m. at the Bloomington Farmers' Market. Native plants, tree saplings, and seeds are encouraged, but all non-invasive plants are welcome.

Putting vegetables by for winter

By Rosie Lerner, Extension Consumer Horticulturist, Purdue

Remember when your grandmother talked about putting food "by" for winter? There are several methods of preserving and storing our garden produce for later enjoyment, including freezing, canning and cold storage. The method of choice depends on the specific produce item, as well as more personal factors such as taste preferences, amount of time available and know-how.

For busy gardeners, storing produce may provide a relatively easy, quick way to enjoy your harvest in winter months. Though most gardeners today do not have access to "root cellars," many crops can be stored in basements, cellars, outbuildings and pits, as long as adequate ventilation is available.

Root crops tend to be the best choices for long-term storage. Potatoes, beets, turnips, rutabagas, carrots and parsnips can last three-to-four months or longer, under ideal conditions. Non-root vegetables, such as cabbage, cauliflower, kohlrabi, winter squash, onions, garlic and mature green tomatoes may keep up to four weeks or longer.

Start with fresh, sound produce that is free from cuts, cracks, bruises, or other insect or mechanical injury. Damaged specimens can spoil the rest of the supply. Handle produce carefully to prevent bruising or cutting surfaces. Use only containers that have smooth inner surfaces, free from any protrusions such as wire staples or splinters.

Specific pre-storage handling procedures, as well as optimum temperature and relative humidity, will vary with the crop. Potatoes, sweet potatoes, winter squash, pumpkins, garlic and dry onions should be "cured" before storage. Curing allows time for the skins to toughen, cuts to seal and excess moisture to dry down, which in turn leads to longer keeping quality.

For more information on storing and preserving produce at home, see the following Purdue Extension bulletins.

Storing Fruits and Vegetables at Home
www.hort.purdue.edu/ext/ho-125.pdf

How to Select, Store, and Prepare Fresh Produce
http://www.cfs.purdue.edu/extension/food_health/nutrition/produce.html

Drying Foods at Home
<http://www.extension.purdue.edu/extmedia/CFS/CFS-146-W.pdf>

Freezing Vegetables at Home
<http://www.extension.purdue.edu/extmedia/CFS/CFS-134-W.pdf>

Everybody's home

By Dianne May



Plants are always on the lookout. Daniel Chamovitz, in *What a Plant Knows*, even makes a case that they can see. Plants don't have eyes or brains, but they do have receptors for light in specific parts of their bodies, as animals do in their eyes. They gather information from these photoreceptors, communicate it to other parts of the plant, and take action in response, just as animals do.

Even though plant and animal "vision" are vastly different, both are based on the same principle—proteins, different for plants and animals, connected to a chemical dye that absorbs light. The two systems do have one protein in common, a blue-light receptor called cryptochrome that controls circadian rhythms. Both plants and animals have twenty-four-hour internal clocks that regulate the most basic actions of their lives. If you flew a plant from Indiana to Paris, it would take a few days to change its pattern of photosynthesis and when it opened and closed its leaves. It might even suffer from jet lag, feeling out of sorts until it got in sync with French sunlight.

A plant's response to light is different from an animal's because light doesn't just allow the plant to find food. For a plant, light *is* food. So when something blocks the sun, a plant has to make it back into the light or starve. Unlike animals, which can just move over, plants have to *grow* out of the shade. Everyone has observed that as plants bend to grow toward light; their stems bend a few inches below the tip. But what part of the plant senses light? It was Darwin who did the experiment determining that if a plant's tip is covered or cut off, the plant won't bend. Later experiments found that plant stems bend only in response to blue light.

Plants also sense light to know when to blossom, when to set seeds, and when to shut down for the winter. For instance, some plants, like chrysanthemums, flower when days start getting short. Others, like irises, flower when days are growing longer. Scientists have found they can change when plants flower by turning on a red light for only a few seconds in the middle of the night. Chrysanthemums can be convinced to flower not in the fall, but rather in spring when days are getting longer, and irises can be made to bloom in the middle of winter when days are still short. This tells us that plants do not respond to the length of daylight, but rather to the length of an unbroken period of darkness.

Plants can sense the difference between blue light and red light. They use the former to guide them as they grow toward sunlight and the latter to tell them what time of the year it is. And while it is the plant tip that is sensitive to blue light, it is the leaves that perceive the red light that controls blossoming.

Research on a plant similar to wild mustard found that it had at least eleven different kinds of photoreceptors, each of which told the plant something it needed to know—when to germinate, when to bend, when to flower, whether it was day or night. At the level of perception, plant vision is much more complex than ours.

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 Jeanie Cox, 360-3587
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	Nancy Fee, 332-1940
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, gardens@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.

Feed garden soil with cover crops

By Rosie Lerner, Extension Consumer Horticulturist, Purdue

Editor's note: Our September general meeting topic, Cover Crops for Home Gardeners, generated strong interest and several questions from our members. Information from Mark Evans's presentation is available on our website, mcmga.net. As a follow-up, below is an article on cover crops.

Many gardeners have used cover crops to help keep soil from blowing away over winter. An added benefit of raising cover crops is that the foliage and root growth can be tilled under in late winter to help loosen heavy soils and improve overall soil structure and fertility. Also known as "green manure," these cover crops can be especially valuable in preparing a new site for gardening or for rehabilitating a heavy or compacted site.

Cover crops are generally sown in late summer or early fall. In established gardens, wait until after summer vegetables are harvested. The type of crop to grow will depend on the desired function, as well as availability. Winter rye, buckwheat, hairy vetch and winter wheat are ideal for use as cover crops and are among the most commonly available through garden centers and mail-order catalogs.

The amount of seed to plant will vary with the species, but, in general, winter cover crops are seeded at a rate of 2-3 pounds per 1,000 square feet. Till or spade the soil, and scatter the seed over the area to be covered at a depth corresponding to the size of the seed. Large seeds should be covered with one-fourth to one-half inch of soil or compost. Small seeds can be left on the surface and lightly raked. Apply a thin layer of loose straw to protect the area from wind and runoff from heavy rains.

Fertilizing is generally not necessary, especially for established garden beds. Some members of the legume family of plants, most notably alfalfa and hairy vetch, actually facilitate the fixing of nitrogen in association with certain soil-borne bacteria. The bacteria colonize in nodules of the legume's roots.

The root growth of the cover crops will help loosen heavy or otherwise compacted soils, and the addition of the dead foliage later in winter or spring will improve aeration, water-holding capacity and nutrient status. The cover crop should be plowed under several weeks prior to spring planting time to allow the vegetation a chance to break down a bit. For plants that have a large volume of top growth that tends to get tangled in the tiller tines, mow the tops first, then till under.

Have you renewed your MCMGA membership for 2014?

Membership renewal blanks are available for printing on our website, mcmga.net. By renewing soon, 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 meeting. Send the renewal form and your check to the extension office.

Assess pruning needs

By Rosie Lerner, Extension Consumer Horticulturist, Purdue

Now that other yard chores have slowed down, many gardeners turn to their landscape plants to assess their pruning needs. Dead limbs can and should be taken down whenever they are present. But cutting into live tissue should be delayed until late winter or early spring. That is the time of year when the pruning cuts will heal most rapidly.

Pruning at the wrong time of year will not kill a tree or shrub outright, but may lead to other problems. Pruning in autumn may cause some late new growth which does not harden-off properly and could be injured by winter extremes. Wounds that are slow to heal over are more susceptible to further dieback during the cold, windy months ahead.

Autumn is a good time to determine which plants need attention and to choose a pruning service, if needed. Pruning of most shrubs and small trees can be easily completed yourself. Young trees may need some thinning each year to remove weak or damaged branches or excess growth. Make notes of what to cut next winter or spring before the new growth begins. Most mature trees should not need pruning except to remove dead limbs. For large limbs or tall trees, it's best to call a professional who will have the proper equipment and skill.

Whatever the tree or shrub, remember that topping is not a sound pruning practice. Topping results in numerous, fast-growing new shoots which are much weaker and more susceptible to wood rots than the original growth and in the case of large trees, are more likely to cause damage to property and power lines.

It is important to do your homework before you hire a professional. Check with your friends and neighbors to see if they can recommend a particular firm. Look in the yellow pages of the telephone directory under tree service. You can narrow the list of choices by selecting those that belong to professional organizations such as an arborists' association. These associations sponsor continuing education programs to help keep the members up-to-date. Be sure to ask the firm for estimates and references from their current customers.

Hats off!



New badges!

James Wells—certified
Jody Wintsch—certified
John Emerson—advanced
Karen King—advanced
Dorothy Wilson—advanced

Monroe County Master Gardener Association

Cooperative Extension Service
3400 South Walnut Street
Bloomington, IN 47401

Helping others grow!



When you are at the grocery,
you might want to purchase some canned goods or packaged food
to donate to the Hoosier Hills Food Bank
at our November holiday dinner and general meeting.
See information in articles on page 2 and page 4.

2013 MCMGA Board

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Low maintenance plant

By Helen Hollingsworth

In her book, *50 High-Impact, Low-Care Garden Plants*, Tracy Disabato-Aust recommends a little known plant, woodland peony (*paeonia obovata*). This is not the peony that we all know and love but a perennial, hardy in zones 4-8, shade plant that requires part-to-full shade, grows to 1-1/2 to 2 feet tall and wide, and combines well with bugloss, hellebore, and variegated Solomon's seal. It produces small pink flowers in May, followed by a shiny red and blue-black fruit in late summer to early fall. Woodland peony is native to Japan and China and deer resistant, but not easy to find. The Internet is your friend if you cannot find it locally. Among its attributes are long life, cold hardiness, insect and disease resistance, non-invasiveness, and drought tolerance.