



Roots and Shoots

Volume 29, Issue 8



Shakespeare Garden at Hilltop

By Linda Heath



“There’s rosemary, that’s for remembrance. Pray you, love, remember. And there is pansies, that’s for thoughts.”

(lines by Ophelia in Hamlet)

Ophelia gives us but a glimpse of plants found in William Shakespeare’s writings. It has been noted that Shakespeare possessed a keen sense of plants as well as a keen sense in observations of people. In *Shakespeare in the Garden*, author Mick Hales observes that Shakespeare breathed the garden into the heart and lives of the many characters he created.



Shakespeare Garden, Northwestern University, Evanston, Illinois

in these gardens.

The creation for the Shakespeare Garden at Hilltop is meant to offer a retreat while experiencing the connection of literature to

(continued on page 3)

Over the years gardeners have researched plants mentioned in Shakespeare’s plays and sonnets to create gardens that people could enjoy. The gardens are often in public parks and on university campuses. In addition, Shakespeare festivals are often held

Inside this issue:

Member news	2
Volunteer opportunities	3
Tomato growing info	4
Next general meeting	4
Adventures in Gardening	4
Tomato troubles	5
Grant winner mentors	6
Tree root problems	7
Everybody’s home	8
Volunteer opportunities	9
Popular garden climber	10

Special points of interest:

- The term for misshapened tomatoes is catfacing
- September’s general meeting provides two hours education credit
- There’s no cure for surface tree roots
- Six Master Gardeners mentor local non-profit organizations who received grants

Member news

By Evelyn Harrell



Twenty-four Master Gardeners attended the July 23 general meeting at the Demonstration Garden. The purpose of this annual gathering is to make the garden presentable for visitors during the Monroe County Fair. I was surprised to learn that even Monroe County Fair exhibitors sometimes enjoy taking a break from the livestock barns to sit in the shade and cool off in the Demo Garden. Other visitors to the fairgrounds during the rest of the year also sometimes stroll the garden's paths.

Neither rain nor heat nor a tornado warning kept these gardeners from their work. Yes, a tornado warning sounded for Monroe County about three hours before we were to gather. The Demo Garden was right in the middle of the tornadic winds shown on radar. However, the only damage to be found was to Herman Young's heirloom cornstalks which lay a little bit every which way.

The Demo Garden, like the rest of the county, has enjoyed unusual amounts of rain, so we were greeted by a thick wall of foliage that obscured the entrances into the garden space. Also in that towering hedge was the mailbox that marks the main entrance. We pulled and hacked with shears and clippers until a mountain of debris was piled up behind us, revealing the mailbox and the garden's interior. Inside, it looked like untended chaos. Weeds had grown like Topsy in beds and pathways. But also due to the rain, perennials that had struggled in recent years from heat and drought were blooming in a rainbow of color. The gardeners spread out and tackled every bed and corner. They generated more piles of weedy debris which were carried off to the 'weed' mountain. A dozen people filled wheelbarrows with mulch, rolled them to the cleared spaces, and dumped them out, while another dozen people spread the mulch into place and cleaned up the last of the weeds.

In just two hours, a miracle was wrought. Everyone expressed pleasure, not to mention surprise, at the very attractive results. Susan Lovell and her refreshment team, Sandy Belth, Mary Hoffman, Di Dingman, Susan Sachtjen, Bethany Murray, and Dorothea Cole-Kiser, furnished plenty of snacks and deliciously cold water.

A belated thank-you to Diana Young for creating the map of the Demo Garden that Stephen Anderson has put on our website.

Scholarship winners announced

Don and Susan Sachtjen won the drawing for the \$100 scholarship to attend the 2013 State Master Gardener's Conference in Bristol, Indiana, on September 5-7.

A video was made of John and Linda Emerson's irrigation system

Master Gardeners were impressed when we toured John and Linda Emerson's property during the Master Gardener Garden Walk. The Monroe County Stormwater Utility was also impressed, and as a result, the Stormwater Utility has created a video of John's irrigation system to be used by County Drainage Engineer, Todd Stephenson, for continuing education.

Shakespeare Garden at Hilltop

(continued from page 1)

horticulture. It is an interpretation of plants that Shakespeare wrote about in his many plays and sonnets.



Volunteers work to clear an area designated for the new Shakespeare Garden at Hilltop

Eager Master Gardener volunteers working on this project at Hilltop include Lea Woodard, Charlotte Griffin, Bob Baird, Pamela Hall, Linda Kaczmarek, Barbara Coffman, Muff Johnson, Camille Rice, Connie Clark, Bethany Murray, and Linda Heath. Mia Williams, IU Landscape Architect and Lea Woodard, coordinator of Hilltop, have graciously given the go ahead for the project. The garden is on the hillside in the back section of Hilltop.

Several committee members spent many hours removing plants from the assigned garden area and researching a list of herbs, perennials, shrubs, and trees noted in Shakespeare's literary works. Bob Baird heartily agreed to contribute his design talents, and the garden design is currently on the

drawing board. Once the design is approved, planting will be underway.

The ongoing project will require committed volunteers to maintain the garden. All of us who have volunteered thus far have found this to be most rewarding while learning about plants from Shakespeare's times. In addition we have enjoyed getting to know each other while digging in the garden and sharing our knowledge of gardening. Stay tuned to hear more exciting news in the developing stages of the Shakespeare Garden at Hilltop.

Scissors

Are you missing your black-handled scissors last seen at the Demo Garden?

If so, notify Evelyn Harrell, and she'll arrange to return them.

Looking for new volunteer opportunities?

By Evelyn Harrell

Some volunteer opportunities available include The Shakespeare Garden at Hilltop, contact Linda Heath; The Farmer's Market Information Booth, contact Evelyn Harrell; and The Master Gardener Booth at the State Fair on August 11, contact Jeff Schafer.

Excellent tomato growing info available

Submitted by Amy Thompson



If you are looking for reliable and useful information on growing tomatoes, try this website:
<http://agriculture.purdue.edu/agcomm/newscolumns/archives/YGnews/2013/July/130718YG.html#.Uek6UYy9KSO> .

September 24 next general meeting

By Susan Lovell



Plan to join us for our next general meeting on Tuesday, September 24, 6:30 p.m. at the county extension office. We will hear presentations by two speakers: Marc Evans, Extension Educator, Putman County discussing *Cover Crops for Home Gardeners* and Heather Reynolds, IU Associate Professor of Biology, presenting *The Microbial Zoo: Life Underground in the Garden Soil*. Attendance for these sessions earns two education hours.

The refreshment committee will have snacks and drinks available starting at 6:00 p.m. September's refreshment committee members are Mary Hawkins, Karen King, Marilyn Brinley, Tom Lovell, Marilyn Bourke, and Ivy McCammon.

A big "thank you" to the refreshment committee for our Demo Garden clean up night, Tuesday, July 23. The committee included Sandy Belth, Mary Hoffmann, Di Dingman, Susan Sachtjen, Bethany Murray, and Dorothea Cole-Kiser. Not only were the snacks plentiful but also delicious!

Hendricks County presents *Adventures in Gardening*

Hendricks County Master Gardeners will present *Adventures-in Gardening*, an all-day seminar focusing on *How to Feed a Planet* at the Hendricks County Fairgrounds auditorium on Saturday, September 28. Registration begins at 8:00 a.m. with speakers from 9:00 a.m. to 3:30 p.m.

Presenters include Ken Meter, Crossroads Resource Center, *Emerging Food Systems in Indiana*; Cris G. Hochwender, Ph.D., Environmental Science, Evolutionary Ecology, Assistant Professor University of Evansville, *Restoration of Native Seeds and Plant Diversity*; and David Wyeth, District 5 Director of Indiana Farm Bureau, a local fourth-generation farmer whose family has owned land in Hendricks County since 1919.

The deadline for early bird registration (\$35) is September 7, and the deadline for regular registration (\$45) is September 30. More information will be available at www.hendricksgardeners.com at a later date.

Tomato troubles

By Rosie Lerner, Purdue Extension Consumer Horticulturist



Despite the endless list of potential problems, tomatoes continue to be the most popular plant in midwest vegetable gardens. Many tomato problems are related to environmental factors such as temperature and moisture, rather than insects or disease.



Tomato blossom-end rot

The most common tomato affliction is blossom-end rot, so named for the black, leathery scar that occurs on the blossom end, instead of the stem end, of the fruit. Blossom-end rot most frequently occurs when there are extremes in soil moisture. The uneven levels of moisture lead to a calcium deficiency in the developing fruit. Most soils in the midwest have plenty of calcium, with the exception of very sandy or highly organic soils. Maintaining an even level of moisture with irrigation and mulching will help prevent blossom-end rot.

Another common problem is blossom drop. Tomatoes are fairly picky about air temperature when it comes to setting fruit. Tomato pollen becomes ineffective when temperatures are below 55° F or above 90 F°. Most early-season cultivars are tolerant of cool temperatures but may have problems with hot weather. If tomato flowers are not pollinated, they will drop off the plant. This year was slow to warm up, so early flowers may have dropped off. Now that summer is in full swing, tomatoes should be setting well, though predicted temperatures above 90° F with high humidity may again cause flowers to abort.

The thin skin of many tomatoes may crack open when excessive growth is brought on by rainy periods following a dry spell. To reduce the incidence of fruit cracking, water regularly during dry weather, and apply mulch to conserve soil moisture.

Catfacing is a term given to deformed, misshapen fruit. It occurs when days are cool and cloudy during fruit set. The blossom sticks to the side of the developing fruit, resulting in puckering. The early-set fruit this summer may exhibit this problem.



Tomato catfacing

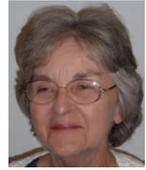
Sunscald is most common on immature, green fruit exposed to excessive sunlight, particularly during hot weather. It appears as a yellow or white patch on the side of the fruit facing the sun. Often, the tissue blisters and may eventually form a shrunken, grayish-white spot with a papery surface. Sunscald is often a problem on tomatoes that do not have good foliage cover. This can be caused by insect or disease damage, or by plants that sprawl unsupported and open from the weight of the fruit. Supporting tomatoes in a cage helps keep the fruit covered.

Yellow shoulder refers to areas of that stay green or yellow at the top of the fruit, while the rest of the fruit turns red. The tissue is actually damaged well beneath the skin.

(continued on page 6)

Master Gardeners mentor grant winners

By Nancy White



Several Master Gardeners are volunteering as mentors for the non-profit organizations who were awarded Master Gardener grants for 2013 horticulture projects. Awarded in April, successful grant winners designed and are implementing creative ways to provide gardening experiences for a variety of populations. Grants totaled \$2000 this year, made possible from profits of our 2012 Garden Fair. Each non-profit organization has a Master Gardener mentor. Some mentors were already participating in the activities of the agency, and some mentors are new faces to the non-profit they are helping. Mentors have given suggestions on the design of the project, ways to get volunteer involvement, ways to address challenges, and even ways to improve the project for another year.

Lynn Courson has been working with two of our grant winners. She is assisting Area 10 Area on Aging as they implement their raised beds arrangement designed to provide accessible gardening for those attending Area 10 activities. Area 10 also is donating vegetables produced in the raised beds to appreciative clients. In addition, Lynn has been active with the Templeton school garden project, begun early in the spring with volunteer parents and IU students assisting the Templeton students. Templeton students and teachers have harvested greens and other vegetables and have planted several blueberry bushes.

Ida Bouvier is volunteering with the staff of the Salvation Army as they implement their project of designing, building, and planting a raised bed for use by the Salvation Army preschool class. Vegetables and flowers will be shared among the families of the preschool children and other families in the area.

Charlotte Griffin has been a faithful volunteer at Hilltop for many years. This year she and Hilltop Director Lea Woodard (also a Master Gardener) have used the grant monies to enhance their youth gardening project with equipment to clean greens and process the produce.

Ivy McCammon is working with the staff and the women clients who reside at Middle Way House to enlarge and improve the rooftop garden. An irrigation system was purchased to assure adequate watering of the flowers and vegetables in the container garden. This creative project is one of just a few rooftop gardens in Monroe County.

Gary Anderson is helping the staff and volunteers at Farmer House Museum design and tend their Victory Garden, patterned after the gardens at many homes in Bloomington during World War II. This garden will serve as a living history exhibit and produce grown will be donated to Mother Hubbard's Cupboard.

(continued on page 7)

Master Gardeners mentor grant winners (continued from page 6)

Nancy White is serving as mentor to the Bloomington Community Orchard. Visitors are noticing that many of the trees are bearing fruit now, three years after the start of the orchard. This season, grant monies were used by their Junior Steward Workshop to provide a variety of native perennials that were planted among the fruit trees and berry patches.

Many thanks to these Master Gardeners who volunteer their time and expertise to encourage and support these community groups with their innovative projects.

Tomato troubles (continued from page 5)

The cause of yellow shoulder is complex and thought to be related to soil pH being too high, extreme high temperatures, poor foliage cover over the fruits and insufficient potassium (sometimes brought on by too much magnesium). Some varieties seem to be more prone to this than others.

The good news is that these environmental problems are not infectious, meaning they don't spread to other fruits and plants.



Tomato yellow shoulder

Some tree roots surface on lawns

By Rosie Lerner, Purdue Extension Consumer Horticulturist

Much to the dismay of homeowners, landscape trees sometimes grow roots above the surface of the lawn. These roots can be quite a nuisance to lawn mowers and running feet.

There are several reasons why the roots come to the surface. Some tree species seem to be more prone to surface roots than others, most notably silver maple, poplar and willow. Sometimes roots become visible due to erosion of the surface soil. But almost any large, older tree, such as those grown to shade large homes, will produce some surface roots.

Once the roots appear, there is little that can be done to remedy the situation without substantially damaging the tree. You can prune off the visible roots, but the damage to the cut roots and the fine feeder roots surrounding the area can harm or even kill the tree. Pruning the roots should be confined to situations where the roots are breaking up sidewalks or driveways.

Everybody's home

By Dianne May



As a gardener I rely on people who know far more about soil and plants than I do. I read gardening books and magazines, attend Master Gardener meetings, and check the material we get from the folks at Purdue. But there are times when plants or soil conditions don't look like they're supposed to look and whatever is supposed to happen doesn't, and I wish I knew a lot more about the fundamentals of plants and gardening.

That's why I love two books by Jeff Lowenfels. You may know the first one, *Teaming with Microbes: The Organic Gardener's Guide to the Soil Food Web*, which he wrote with Wayne Lewis. In it Lowenfels describes all the members of the community of critters—including microbes, fungi, bugs, worms, and mammals—that live in the soil and support plant growth. He also explains how to compost and mulch to strengthen the soil food web so diversity of life can flourish.

Microbial life in the soil is the foundation of plant well-being. A new journal article reports that the microbial population in soil that has been treated with chemicals resembles the plant population in soil that has been disturbed and left open. Diversity is destroyed, and a few species (often invasive) take over. In other words, microbial life in soil that has been treated with chemical weed killers and insecticides can look a lot like a field of kudzu. The soil food web that provides nutrition to plants is damaged, and they become dependent on chemical fertilizers. *Teaming with Microbes* presents organic alternatives as well as the reasons for using them.

Now Lowenfels has given us a new book—*Teaming with Nutrients: The Organic Gardener's Guide to Optimizing Plant Nutrition*. During presentations in Master Gardener training, I sometimes felt as if I were on a five-day tour of Europe. Plant biology, soil testing, fertilizer—all went flying by like the Eifel Tower and Big Ben. I knew it was important and wanted more information. I headed for the used book store, picked up some textbooks on plants, and soon found myself swamped with information. I slogged onward, but it was hard putting it all together.

Lowenfels has done the work. He answers the basic question, “How do plants eat?” starting with the plant cell and its basic chemistry, moving on to the botany of plant nutrition, all presented clearly and concisely. Then comes information on the seventeen elements that plants need to survive, everything about nitrogen, phosphorus, potassium and micro-nutrients a gardener should know. This is followed by a description of how water and nutrients move through plants. Practical chapters wrap things up—the importance of soil testing, factors influencing what nutrients are available, and what and when to feed plants. Each chapter begins with a description of what's included in it and ends with a list of the main points.

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, 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.

Clematis is a popular garden climber

By Rosie Lerner, Purdue Extension Consumer Horticulturist



Clematis blooming in April
Photo by Mike Hollingsworth

Looking for a vigorous climber that has a long season of bloom and can adapt to just about any garden soil? Sound too good to be true? Well, clematis pretty well lives up to the challenge.

There are numerous species and literally hundreds of cultivars of clematis, some of which are better adapted to Indiana's soils and climate than others. Unless you have extremely compacted and poorly drained soil, there's a selection that you can grow.

Clematis is a woody vine that generally prefers sunny locations with light, well-drained soils having average moisture and cool temperatures. A location that offers bright sunshine in the morning followed by light shade in the afternoon is ideal. Applying a mulch around the root area of this plant will help keep the soil temperatures cooler.

One of the first questions people ask about the plant is how to pronounce its name; is it clem-a-tis or clem-atis? The botanists would likely argue that clem-a-tis is the correct pronunciation, but

most gardeners would understand either name.

The next most frequent question concerns the proper pruning technique for this flowering vine. How to prune depends on the particular species of clematis that is grown. To simplify, we'll consider two types of clematis.

Clematis that flower on last year's growth in spring and early summer. Examples include:

Barbara Dibley

Duchess of Edinburgh

Crimson King*

The President

*Will also flower on current season's growth if pruned in spring

Plants in this group can have either large, individual blooms or numerous clusters of small flowers. Because the flower buds are produced in the previous year, these plants should only be pruned immediately after flowering. Pruning in fall or winter removes the flower buds, thus removing the potential for bloom. (continued on page 11)

Clematis is a popular garden climber (continued from page 10)

In fact, Group One plants do not require annual pruning and may actually flower better if left unpruned for several years. If plants are badly overgrown and are in need of renovation, a severe, late-winter/early spring pruning may help rejuvenate the vine, but keep in mind that blooming that year will be sacrificed.

Clematis that flower on the current season's growth in late summer and early autumn. Examples include:

Comtesse de Bouchaud

Lady Betty Balfour

Earnest Markham

Nelly Moser*

Gipsy Queen

Niobe

Hagley Hybrid

Ramona*

Jackmanii

Ville de Lyon

William Kennett

*Also flowers on last season's growth if old growth is allowed to remain.



Jackmanii clematis with roses
Photo by Mike Hollingsworth

Plants in this group have a tendency to become bare at the bottom of the vine unless pruned annually in late winter. Cut these plants back nearly to the ground, leaving at least one pair of healthy looking buds on the trunk.

Clematis actually display several more types of growth habits than just these two simple categories. For the serious clematis enthusiast, a trip to the library or bookstore is highly recommended so pruning technique can be customized to the individual cultivar. In addition, here are some online information sources on clematis pruning:

[The International Clematis Society](#)

[Pennell's Clematis Nursery \(U.K.\)](#) (click on FAQs, then Pruning)

[Growing Clematis](#) (Ohio State University Factsheet)

**Monroe County Master
Gardener Association**

Cooperative Extension Service
3400 South Walnut Street
Bloomington, IN 47401

Helping others grow!



2013 Master Gardener Programs

September 24, 6:30 p.m., extension meeting room, two presentations eligible for two hours education credit

November 12, 6:30 p.m., Sherwood Oaks Christian Church, one presentation eligible for one hour education credit

2013 MCMGA Board

President: Evelyn Harrell

339-0572 ear4841@comcast.net

Vice President—Programs: Susan Lovell

339-5914 smlovell@indiana.edu

Vice President—Education: Sandy Belth

825-8353 belthbirds@aol.com

Secretary: David Dunatchik

332-2331 dddunatchik@att.net

Treasurer: Diana Young

339-0040 young-diana@att.net

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332-7313 hlhollin@indiana.edu

Director—Communications: Stephen Anderson

360-1216 stephen_aee@yahoo.com

Director—Records: Abe Morris

606-5577 abemorris7@gmail.com

Director at Large: Jeff Schafer

650-0277 jeff.schafer1@comcast.net

Fair Board Representative: Herman Young

339-0040 hoyoung@indiana.edu

Past President: Nancy White

824-4426 nwhite38@hotmail.com

Extension Educator: Amy Thompson

349-2575 athompson@purdue.edu

Fall learning opportunity

Grow Organic Educator Series

Date: Wednesday, September 4 through
December 4, 6:00—9:00 p.m.

Register by: August 30 (Code 56503-A)

Cost: \$125/in-city, \$145/non-city

Ages: For ages 18 years and up.

Location: Hilltop Garden and Nature
Center