A program of the University of Tennessee Extension

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New publication
W 417 Cover Crops Quick Facts
extension.tennessee.edu/publications/Documents/W417.pdf

Master Gardener Hours
As of May 1, 2017
• 137 hours have been reported thus far valued at $3300.00
• Master Gardeners have made over 225 direct contacts this year.

Revised publications
SP 503-G The Hemlock Woolly Adelgid: A Threat to Hemlock in Tennessee
https://extension.tennessee.edu/publications/Documents/SP503-G.pdf. Please note that it is available online only.
2017 Dates

- **Eastern Region TEMG workshop** June 8, 2017, Crossville
- **Central Region TEMG workshop** June 22, 2017, Murfreesboro
- **Steak and Potato Day** August 1, 2017, Crossville
- **Quarterly Meeting** August 12, 2017 (Week later due to 127 Yard Sale) Tomato Tasting in Dunlap Mountain Valley Bank
- **Bledsoe County Fair** August 14-19, 2017
- **Sequatchie County Fair** August 21-26, 2017
- **Western Region TEMG workshop** October 12, 2017, Memphis
- **Quarterly Meeting** November 4, 2017, Pikeville

A Rose Is a Rose, But Who Wants Rosette?

**UT Researchers to Discuss Managing the Disfiguring Plant Disease**

Rose rosette is a disfiguring and lethal disease of one of America’s favorite blooming plants. It is spreading throughout cultivated and wild rose populations by way of tiny mites that can blow about in the wind.

An upcoming event will feature discussions of the disease’s threat and new research by University of Tennessee Institute of Agriculture entomologists and plant pathologists that is helping to combat the disease. Rose enthusiasts and the interested public are invited to a Rose Rosette Field Day at the UT Plateau AgResearch and Education Center in Crossville. The event is scheduled for Saturday, May 20, from 9 a.m. – noon CDT.

Visitors may tour the rose rosette research plots where thousands of plants are being tested to see which treatments may help mitigate the disease and which plants may offer some resistance. Attendees will also learn how to manage the disease and how to detect the eriophyid mite in their gardens. The mite is the known vector for rose rosette. UT’s nationally known rose researcher, Mark Windham, a professor of plant pathology, is coordinating the event and will be among the speakers. An ‘ask the expert’ tent will be available for people to ask questions about their own plant problems.

There is no cost to attend. The field day will be held at the Plateau Center’s Rose Rosette Research Plots on 2815 POW Camp Road in Crossville (zip code 38572), next to the Clyde M. York 4-H Center.

For more information, please contact Windham at mwindham@utk.edu or call the Plateau AgResearch and Education Center at 931-484-0034.

Through its mission of research, teaching and extension, the University of Tennessee Institute of Agriculture (UTIA) touches lives and provides Real. Life. Solutions. [ag.tennessee.edu](http://ag.tennessee.edu)
June Garden Tips

June, the most popular month for weddings, is also all about being outdoors and enjoying nature. June’s a great month to enjoy the bounty of blooms in the garden.

Jason Reeves, research horticulturalist for the University of Tennessee Gardens in Jackson, says there’s a number of things Tennesseans can do in June to benefit their gardens. One is to add annual plants to their beds.

“Just because it’s almost summer doesn’t mean it is too late to plant annuals. I often don’t get my annuals at home into the ground until mid to late June. Plants such as sunflowers, zinnias, Mexican sunflowers, cosmos, marigolds, basil and dill can still be direct-seeded while purchased plants can be transplanted into the garden.”

Reeves says gardeners should also think about mulch. “During the hot summer months, mulch can be especially useful for conserving water. Consider mulching your vegetable garden as well as your ornamentals. The mulch not only helps conserve moisture, but it prevents the splashing of water, reducing the spread of disease. It also adds organic matter to the soil and prevents many weeds.

Reeves has a number of tips to share:

- Trim back catmint (Nepeta) after its first flush of flowers to promote new growth and a second flush of blooms.
- Harvest herbs early in the morning when essential oil content is at its peak. The best time to harvest most herbs is just before flowering. This time is when the leaves contain the maximum essential oils.
- Daylilies are in peak bloom in June. It is a good time to buy new daylily selections for your garden to ensure you get the color you desire. Visit a daylily farm for the best selections, and plant them in full sun for the best flower production.
- Once daffodil foliage has turned yellow, you can mow or cut it down. If you remove it while it is still green, you decrease the amount of energy available for the bulb to store, decreasing flower size next year.
- To keep squash, cucumber and bean plants abundantly producing, harvest them frequently.
- Store leftover vegetable and flower seeds in a cool, dry location to save them for planting next year.
- Water your plants in the morning, if possible, to conserve water and reduce evaporation. Infrequent, deep watering is better than frequent, shallow watering, since deep watering promotes deep root growth. For best results, deep-water trees and shrubs once or twice a week and flowers two to three times a week. Most plants need 1 inch of rainfall per week. Pay attention to how much falls from the sky and water accordingly. If you have an automatic irrigation system, consider installing a rain sensor that adjusts for rainfall.

Native Plant Symposium and Plant Sale

Come to Either or Both!

Join the University of Tennessee Gardens’ staff and regional native plant experts as we explore native plants on Saturday, May 20, 2017, from 8 a.m. to 6 p.m.

During this day-long symposium, we will explore how native plants can add beauty to our landscape and enhance biodiversity while improving our surrounding environment. Margie Hunter, author of Gardening with Native Plants of TN: The Spirit of Place, will speak on ecology in the residential landscape and how to best use natives to promote a sound garden ecosystem. Other guest speakers include UT Associate Professor Emeritus Sam Rogers, local garden author John Tullock and Tennessee native plant nursery owner Andy Sessions.

Participants will learn about the connection between native plants and pollinators and learn about native orchids and how to grow them in the landscape. Symposium attendees will be able to start shopping for plants 45 minutes prior to the sale, which opens to the general public at 3:45 p.m. The sale will feature a group of local nurseries who specialize in native plants. This event will be a great way to for people to learn about our regionally native and endemic plants and have access to growers whose nurseries are located outside the city.

The cost for the symposium is $60 for UT Gardens Members and $80 for nonmembers. Lunch will be provided. Register online at tiny.utk.edu/UTGnative by 5 p.m., Thursday, May 18.
Scientists Say Agriculture Is Good for Honey Bees

*Research Finds Positive Correlation Between Bee Health and Presence of Agriculture*

By: Ginger Rowsey, UTIA Marketing and Communications

While recent media reports have condemned a commonly used agricultural pesticide as detrimental to honey bee health, scientists with the University of Tennessee Institute of Agriculture have found that the overall health of honey bee hives actually improves in the presence of agricultural production.

The study, “Agricultural Landscape and Pesticide Effects on Honey Bee Biological Traits,” which was published in a recent issue of the Journal of Economic Entomology, evaluated the impacts of row-crop agriculture, including the traditional use of pesticides, on honey bee health. Results indicated that hive health was positively correlated to the presence of agriculture. According to the study, colonies in a non-agricultural area struggled to find adequate food resources and produced fewer offspring.

“We’re not saying that pesticides are not a factor in honeybee health. There were a few events during the season where insecticide applications caused the death of some foraging bees,” says Mohamed Alburaki, lead author and post-doctoral fellow with the University of Tennessee Department of Entomology and Plant Pathology (EPP). “However, our study suggests that the benefits of better nutrition sources and nectar yields found in agricultural areas outweigh the risks of exposure to agricultural pesticides.”

According to the study, hives located in areas with high to moderate agricultural vegetation grew faster and larger than those in low or non-agricultural areas. Researchers suggest the greater population sizes enabled better colony thermoregulation in these hives, as well.

Meanwhile, bees located in a non-agricultural environment were challenged to find food. Although fewer pesticide contaminants were reported in these areas, the landscape did not provide sustainable forage. In fact, during the observations, two colonies in the non-agricultural areas collapsed due to starvation.

Disruptions and fluctuations in brood rearing were also more notable in a non-agricultural environment. Interestingly, brood production was highest in the location that exhibited a more evenly distributed mix of agricultural production, forests and urban activity.

“One possible explanation for this finding could be the elevated urban activity in this location,” says Alburaki. “Ornamental plantings around homes or businesses, or backyard gardens are examples of urban activity that increase the diversity of pollen in an area. Greater pollen diversity has been credited with enhancing colony development.”

Researchers also evaluated trapped pollen from each colony for pesticide residues. Low concentrations of fungicides, herbicides and insecticides were identified, but at levels well below the lethal dose for honey bees. Imidacloprid was the only neonicotinoid detected, also at sub-lethal levels.

Agricultural pesticides, particularly neonicotinoids, are considered by some to be a key factor in declining honeybee populations. The UTIA study found that higher exposure to pesticides in agricultural environments did not result in measurable impacts on colony productivity.

“We train agricultural producers on careful selection and conscientious application of pesticides to reduce bee exposure,” says Scott Stewart, Integrated Pest Management Specialist with UT Extension, “but it’s becoming more clear that the influences of varroa mite and food availability are more important factors in honey bee health than agricultural pesticides.”

This study was supported in part by the U.S. Department of Agriculture’s Agricultural Research Service Pest Management Program.
Some of you may have poultry, here is a recent article related to poultry and the recent Avian Influenza outbreak in Tennessee.

Worried About Your Chickens?
Check Out This Link for Info on Avian Influenza
Dr. Lew Strickland, UT Extension Veterinarian

Highly Pathogenic Avian Influenza (HPAI) has been reported in Lincoln County. Take steps now to protect your birds. For more information, visit this link.

Backyard biosecurity means doing everything you can to protect your birds from disease including Highly Pathogenic Avian Influenza (HPAI).

As a bird owner, keeping your birds healthy is a top priority. Your birds can become sick or die from exposure to just a few unseen bacteria, viruses or parasites. In a single day, these germs can multiply and infect all of your birds. By practicing backyard biosecurity, you will help keep your birds healthy.

If you follow some basic tips and make them part of your routine, you decrease the risk of disease entering your flock and persisting in soil, droppings and debris. Practicing biosecurity is an investment in the health of your birds.

Report Sick Birds
Don’t wait. If your birds are sick or dying, call your local cooperative extension office, local veterinarian, the State Veterinarian, or U.S. Department of Agriculture (USDA) Veterinary Services office to report. USDA operates a toll-free hotline with veterinarians to help you.

Call your local cooperative extension office, or local veterinarian. Other contacts include:

- U.S. Department of Agriculture (USDA) Veterinary Services, 866–536–7593
- Dr. Charlie Hatcher, State Veterinarian, Tennessee Department of Agriculture's office 615-837-5120
- Dr. Lew Strickland, lstrick5@utk.edu, or 865-974-3538

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