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Fire Ants in the Vegetable Garden

Fire ants first entered the United States about 1918, near Mobile, Alabama and reached Mississippi around 1930. They now occur over much of the Southeast. There are two species of fire ants in the state. Red imported fire ants are the most common, but some areas have black imported fire ants, or hybrids of these two species. These two species are similar in biology and behavior.

Fire ants are social insects that nest in the soil in large colonies that contain tens of thousands to more than 200,000 ants. It takes several months for a colony to get large enough to build a mound large enough to be noticed in the average home lawn, which is where they may be discovered more frequently compared to your vegetable garden. For every easily visible, large mound there are usually many younger colonies that are still too small to produce visible mounds. But once a young fire ant colony is well established and has a few thousand workers, it can quickly develop into a mature colony containing tens of thousands of ants.

Fire ants are the ant species most common in Mississippi gardens. Besides their stings, which interfere with tending and harvesting the garden, fire ants also damage some vegetables, such as okra and Irish potatoes. Sometimes fire ants reduce stands of corn and other crops by eating the germ (innermost layer of a corn kernel) of newly planted seed. Fire ants nest in mounds, which may be within the garden, or foraging workers may enter the garden from mounds around the outside of the garden.

Granular baits are effective fire ant control tools but are slow-acting. Most of the fire ant baits labeled for use on home lawns may not be applied directly in the garden area so please read and understand the label and its limitations. But you can apply labeled fire ant baits to the lawn area immediately surrounding the garden to help reduce the number of ants that invade the garden. For best results, treat two to three times per year, in early spring, midsummer, and/or fall.

Some fire ant baits containing the active ingredient spinosad may be applied directly to the garden and are even approved for use by organic gardeners. Spinosad, permethrin, and carbaryl insecticides can be applied to problem mounds within the garden area by using the soil drench method. Mix and apply according to directions on the label. Use 1 to 2 gallons of drench per mound. Using the soil drench method with an approved vegetable insecticide and applying an approved fire ant bait in the areas surrounding the garden will help you get control of fire ants.



Fire ants can cause damage to okra blooms and pods

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Tips for Lawn Improvement

I receive a lot of calls regarding lawns throughout the year, usually starting with the question, "What is wrong with my grass?". Let's face it, we have our share of potential causes to lawn problems, and properly identifying the cause is the first step in getting the lawn in shape. But, one must keep in mind that maintaining a great-looking lawn requires a bit of work and patience. You can refer to Extension Publication 1322, *Establish and Manage Your Home Lawn*, on the MSU Extension website for more information, but here are a few tips:

Have you gotten your soil tested? If the answer is no, then please do. This will allow us (or you) to move forward with solving the problem IF no disease or insect pressure is detected. If your answer is yes, then great! When you receive your soil test results, the first thing you should look for is pH. Different grass types grow best at different pH levels. For instance, Centipede does better when the pH is lower (4.5-6) than St. Augustine (6-7.5). Why is pH important? At ideal pH levels your grass type is getting the optimum amount of nutrients it needs. If it's too high or too low some of those nutrients may not be available at the needed amounts or not at all. Your soil test will give recommendations for correcting the pH if needed.

Next, look at nutritional needs. Your soil test will provide recommendations to correct any deficiencies. It's important to understand that some grass types, such as Centipede and St. Augustine do not like to be overly maintained: therefore, good maintenance is low maintenance, especially for Centipede. More often, Centipede decline is the result of over-maintenance, particularly applying too much nitrogen and water. Your soil test results will provide you with nutritional recommendations based on your grass type. Pay close attention to potassium, an important element our lawns here are often lacking in sufficient amounts.

Ask yourself about the shade situation. St. Augustine is the most shade tolerant grass for our area followed by Zoysia. Although Centipede does have minor shade tolerance, it does need much more sunlight than shade. In fact, all grasses need some direct sunlight, so if you have heavy shade consider having your trees trimmed or thinned to allow more sunlight to come through. Some areas may be too shaded even with a little thinning, so consider adding beds with shade plants or groundcover to improve aesthetics.

Improving drainage by aeration or leveling the lawn with good soil can aid in preventing many lawn problems. Water that sits in low areas can kill the grass or cause disease, particularly during periods of heavy rainfall which we have quite often. If you have an irrigation system, more often than not, you don't need to use it unless we get into extended dry periods or drought. If you feel you need to water, the rule of thumb is 1-1 ½ inches per week of rainfall or irrigation. Split the irrigation into twice per week. This is much better for your lawn than watering frequently. Give the grass time to dry and allow the roots to penetrate deeper to get to the water it needs. If you need to re-sod or seed, then water twice per day to keep it moist until the grass has rooted in the soil, then begin lowering the amount of irrigation until established. Aerating compacted soil will allow better water and air movement and increase root growth.

Lastly, we are getting close to the time of year when insect and disease pressure increases. If you see yellowing and/or browning in the lawn it could be either one but identifying it correctly is the only way to have success. If you suspect you may have either of these, please refrain from applying nitrogen until it's controlled: otherwise, it can increase the intensity. You can contact your local Extension office to help you identify the problem and provide the proper control methods.



Centipede decline often occurs due to improper maintenance.



Large patch disease on St. Augustine. If you notice disease, do not add nitrogen.

Garden Calendar: February



Planning

- Decide on plants you would like to have in your spring garden and flower beds.
- Consider buying new plants that you have not tried before.
- Determine how many seed packets you need. Remember to order extra seed if you are planning to replant for a second crop of flowers after the heat of the summer.

Planting

- Plant cold weather annuals: Nasturtiums, Pansies, Snapdragons, English Daisies, Sweet William, and Calendulas
- Start cold weather vegetables in cold frame: Broccoli, Cauliflower, Onion sets, English Peas, Kale, Carrots, Collards, Beets, Radishes, Kohlrabi, and Chinese Cabbage.
- Plant Asparagus in prepared beds.
- Start seeds of Herbs indoors for transplant outdoors.
- February is an ideal time to set out Dogwoods. Planting site should be well drained and plants should be planted shallowly. Dogwoods prefer acidic soil.
- Broad-leaved Evergreens such as Magnolia, Holly, and Photinia can be set out at this time.
- Plant new Roses, or move old Roses soon after February 15.

Fertilizing

- Roses -- Apply top-dressing of organic fertilizer under thick layer of compost or rotted manure.
- Fertilize Trees and Shrubs (not spring Flowering Shrubs) if not fertilized in January.

Pest Control

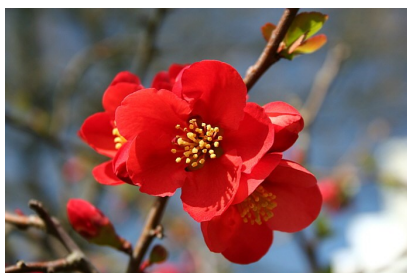
- Spray garden with dormant spray. This will kill many eggs and spores of insects and diseases. Do not apply if temperatures will dip below freezing within 4 hours of application.

Pruning

- Prune Evergreens for size and shape. Cut out dead wood of Flowering Shrubs. Dispose of clippings to prevent disease or insect spread.
- Prune Hydrangeas during the last week in the month.

In Bloom

- Crocus, early Daffodils, Helleborus, Hyacinth, Pansies, Scilla, Snowdrop, Snowflake, Violet, Camellia, Forsythia, Flowering Quince, Loropetalum, Pussy Willow, Thumbergia Spirea, and Winter Jasmine.





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Soil Preparation

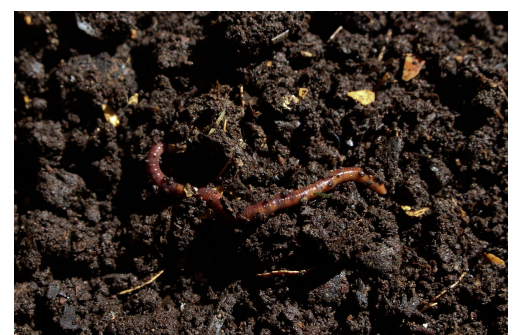
Regardless of the soil in your garden, it can be improved by adding organic matter. If your soil is heavy clay, the addition of organic matter improves both drainage and aeration and also allows better root development. Liberal amounts of organic matter help sandy soil hold water and nutrients.

When adding organic matter to soil, supply enough to physically change the soil structure. Ideally, at least one-third of the final soil mix should be some type of organic material. To accomplish this, spread a 2 to 4 inch layer of organic material over the garden surface and till it to a depth of at least 6 to 10 inches. Apply the recommended rate of fertilizer over the garden surface at the same time, and till it in along with the organic material.

Some gardeners prefer a shovel or spading fork to the rototiller for working garden soil, but many look for an easier way to handle this chore. For gardeners with rototillers or those who are considering renting or buying one, here are some tips to make the tilling job much easier.

- Tilling the garden will be easier if you leave an untilled row between passes. Wide turns are easier to make with a tiller than "about faces." Also, the machine won't pull itself and you toward the next row, which it tends to do if you come close to overlapping rows.
- When tilling heavy clay soils or breaking ground for a new garden, reduce the tiller's engine speed so that it turns the soil more thoroughly with less bucking and bouncing.
- When tilling ground for the first time, don't try to work it to the maximum depth in the first pass. The first time around, set the brake stake to half the desired depth. Then set it for full depth and go over the ground a second time.
- Till only when the soil is slightly dry and friable. Tilling when it's too wet leaves large clods which become rock-hard when dry. Mud clumps clinging to tiller blades upset its balance, causing undue wear on you and the tiller.

Where do you get organic matter? This magical stuff which improves soil and serves as a food source for soil fungi and bacteria comes in the form of peat moss, compost, hay, grass clippings, barnyard fertilizer, shredded bark, leaves or even shredded newspapers.



Crosby Arboretum Program Schedule

Winter 2023

Yoga on the Pinecote Pavilion

Saturday, February 4, 1:30 to 3:00 p.m.

Grab your yoga mat and a friend and have fun while getting fit and enjoying the natural beauty surrounding the Pinecote Pavilion. Cost is \$2 for members and \$5 for non-members. Weather permitting. Reservations requested.

ARBOR DAY NATIVE PLANT SALE!



Saturday, February 11, 10:00 a.m. to Noon
(Members enter at 9:00 a.m.)

Winter is a great time for planting trees and woody shrubs, celebrate Mississippi Arbor Day by choosing your favorites from a great selection of native trees, shrubs, and perennials. Plant experts and Pearl River County Master Gardeners will help you select right plant for the right place on your property. **Free admission.**

Winter Botany Field Walk

Saturday, February 25, 10:00 to 11:30 a.m.

Enjoy a walk through the Arboretum's exhibits with Extension Forester **Butch Bailey**. Learn about resources and tips for identifying trees and shrubs in the winter without their leaves through characteristics of their twigs, buds, and bark. Members free; non-members \$5.



Matthew Herron from the Coastal Plains Outdoor School in Lumberton talked about the many uses of plants for food, fibers (i.e., baskets and rope), and even entertainment (such as reed flutes!) at the November Piney Woods Heritage Festival.

PINE NEEDLE BASKETRY WORKSHOP:



Saturday, February 4, 10:00 a.m. to Noon

Learn how to get started in crafting pine needle baskets with basket maker **Denine Jones**. Participants will be introduced to basic pine needle basketry techniques and will begin a basket in the workshop. Methods and resources will be provided so you may continue working on your own. All materials provided. Scissors will be available, but you may bring your own. Class suited to ages 14 and up. Reservations required. Size is limited to 10 persons per session. Members \$15; non-members \$20.



PLEASE NOTE: A spring "Introduction to Beekeeping" program led by Pearl River County Extension Agent **Dr. Eddie Smith** will be offered **March 3**, 10:00 a.m. to Noon. Members free; \$5 for non-members. Registration required.



www.crosbyarboretum.msstate.edu

Program fees include the cost of admission for non-members. **For Reservations:** Please call the Arboretum office at (601) 799-2311. **Physical Address:** 370 Ridge Road, Picayune, MS 39466. **Hours:** Wed - Sun, 9 AM - 5 PM (last entry at 4 PM)

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Spring/Summer Weed Control

Control of summer annual weeds begins towards the end of winter and the beginning of spring. Preemergence herbicides should be applied in late February to early March to prevent these annual summer weeds from becoming an issue. To be effective, they must be applied before weed seed germination. These herbicides require 0.25 to 0.5 inches of rainfall or irrigation for activation. Try to time the application within a day or two of expected rainfall but not a torrential downpour where all of the product ends up being washed away.

All of the herbicides in the list below can be used on established, southern turfgrasses. **READ, and FOLLOW THE LABEL completely** to make sure you can use it in your situation. A partial list of common (active ingredient) and trade names for Pre-emergent Weed Control in Home Lawns by Homeowners can be found below. Just as with an application of fertilizer, applying in two different directions that total the labeled rate will provide a more consistent barrier to emerging weeds rather than an application in one single direction.

Depending upon label directions and application restrictions for the particular product you purchase, reapplication may be beneficial in 6-8 weeks. It is not recommended you use a product that contains a fertilizer carrier at this time as the turf is not actively growing during dormancy, and nutrients will only be leached out and wasted. Avoid applications of any fertilizer until you have mowed your actual turfgrass 3 times. Do not apply to areas that have standing water.

Common Name – Trade Name (partial list)

1. dithiopyr - Sta-Green Crab Ex; Green Light Crabgrass Preventer; Vigoro Preemergent Crabgrass and Weed Preventer
2. pendimethalin - Scotts Halts Crabgrass Preventer
3. oryzalin - Southern Ag. Surflan A.S.
4. isoxaben - Portrait Broadleaf Weed Preventer
5. benefin + oryzalin - Green Light Amaze Grass and Weed Preventer; XL 2G
6. benefin + trifluralin - Hi-Yield Crabgrass Preventer; Southern Ag. Team 2 G
7. corn gluten meal - Concern All Natural Weed Pre-venter Plus; Nature's Guide Corn Gluten Meal

HOME LAWN MAINTENANCE
 February 9 2023 6:00 pm

MISSISSIPPI STATE UNIVERSITY
 EXTENSION

Topics Include:
 - Turf Selection
 - Mowing
 - Fertilization
 - Weed Control
 - Insect/Disease

RSVP by 2/6 CALL: (601)794-3910 216 Shelby Street Purvis MS 39475

Mississippi State University does not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. Individuals who require special accommodations to participate should contact the Extension Office to make their request known prior to the program.

MARKETING AT THE *Marketplace*



An event for market vendors to learn valuable skills such as mobile payment processing, smart phone basics, how to participate in statewide marketing efforts such as Genuine MS, and visual merchandising.

Register Here:

https://reg.extension.msstate.edu/reg/event_page.aspx?ek=0081-0004-abe6a5aa138645e98447fc7151fa2c14

1:30 - 4:30 PM FEBRUARY 9
WHITE HALL - PEARL RIVER COMMUNITY COLLEGE
101 HIGHWAY 11 NORTH
POPLARVILLE, MS 39740



PEARL RIVER
COMMUNITY COLLEGE

GENUINE
MS

MISSISSIPPI DEPARTMENT OF
AGRICULTURE
& **COMMERCE**



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Events

Greenhouse Vegetable Short Course

You are invited to attend the 1st annual *Greenhouse Vegetable Short Course* (formally Greenhouse Tomato Short Course) at Mississippi State University. The course will be **March 7th & 8th** at the North Mississippi Research & Extension Center in Verona, MS. This course will feature greenhouse vegetable management practices and will have presentations from speakers in greenhouse, vertical, and indoor production of tomato, lettuce, and other crops. We also plan to have sessions on marketing, social media, economics of scale, pest and disease management, and a grower's perspective.

We will have general sessions both days including a research facility tour at the NMREC. The tours will feature hydroponic growing techniques, greenhouse controls, and indoor production of lettuce via light emitting diodes (LEDs). We are currently lining up vendors to showcase their goods and services.

All pre-registration will be done online at the link below or you can scan the QR code:

https://reg.extension.msstate.edu/reg/event_page.aspx?ek=0081-0004-eda2db2c1375478ea8b42264c03b5d94.



The registration fee is **\$75 per attendee**. **Registration closes on February 21st**. Registration at the conference is \$100 per attendee. This covers conference handouts, lunch both days, snacks and coffee, and a facilities tour. All registration must be done online at the above link.

Online Private Applicator Certification Program

A private applicator is a certified applicator who uses or supervises the use of restricted-use pesticides to produce an agricultural commodity on his or her own land, leased land, or rented land or on the lands of his or her employer. Private applicators must be at least 18 years old.

In response to limited face-to-face training during the COVID-19 situation, the Mississippi Department of Agriculture–Bureau of Plant Industry has approved an online private applicator certification program developed by the MSU Extension Service. Persons needing to obtain or renew their private applicator certification can complete the online training (two video training modules and a competency exam) by using the following link: <http://extension.msstate.edu/content/online-private-applicator-certification-program>. The fee for training and testing is \$20, payable online by credit card, debit card, or eCheck.



MISSISSIPPI STATE UNIVERSITY
EXTENSION

Private Applicator

TRAINING AND TESTING ONLINE

Watch the training modules, pass the exam, and receive your private applicator certification from MDAC Bureau of Plant Industry.

\$20 COST

Visit <http://msuext.ms/agmes>
or contact your local MSU Extension office for info on how to register.