



## Growing Pumpkins

Pumpkins are part of our American heritage, having been grown and depended on by native-Americans as well as the first European settlers. These early settlers used pumpkin in an assortment of recipes that included desserts, stews and soups. Adding milk, honey and spices to the hollowed out shell before baking is how they made pumpkin pie.



Growing pumpkins takes a lot more effort than one might think, since they are prone to several potentially devastating diseases and harmful insects. In order to be ready for fall harvest, pumpkins must be grown during the most severe part of the summer, when it is extremely hot and humid, two things pumpkins don't like very much. If you would like to have a few pumpkins for seasonal decoration and for a few Thanksgiving pies, you need to plant your pumpkin seeds this month.

Many growers are happy to get any size pumpkin to a harvestable size and color while others attempt to grow the big ones. Growing giant pumpkins has become a popular gardener's challenge in many parts of the country. According to the World Pumpkin Confederation, growing giant pumpkins really achieved international recognition in 1900 when William Warnock of Goderich, Ontario, Canada sent a 400 pound entry to the Paris World's Fair. Since then, gardeners have continued to tweak their production methods and search for genetic improvements for increased size and weight.

We may never grow the national record winner pumpkin in the Magnolia State, but we do grow some fairly sizeable, high quality pumpkins. In recent years some Mississippi-grown giants, some of which weighed in at over 100 pounds, have been grown here. For a pumpkin to reach that size here in Mississippi, it takes a lot of time and care. Happy Gardening!!!



**Eddie Smith, Ph.D., C.A., Co. Coordinator & Extension Agent  
MSU-ES Pearl River County  
Phone: (601) 403-2280 E-mail: eddie.smith@msstate.edu**

### INSIDE THIS ISSUE:

Controlling Large Patch in Lawns	2
Garden Calendar	3
Virginia Buttonweed	4
Fall Armyworm	5
Harmful Garden Insects	6
Lawn Irrigation	7
Events	8

### CONTACT INFORMATION

Forrest County  
Phone: (601) 545-6083  
Email: ext-forrest@lists.msstate.edu

George County  
Phone: (601) 947-4223  
Email: h.steede@msstate.edu

Hancock County  
Phone: (228) 467-5456  
Email: cdo94@msstate.edu

Harrison County  
Phone: (228) 865-4227  
Email: tim.ray@msstate.edu

Jackson County  
Phone: (228) 769-3047  
Email: sls534@msstate.edu

Lamar County  
Phone : (601) 794-3910  
Email: rosso@msstate.edu

Perry County  
Phone: (601) 964-3668  
Email: b.odum@msstate.edu

Pearl River County  
Phone: (601) 403-2280  
Email: eddie.smith@msstate.edu

Stone County  
Phone: (601) 928-5286  
Email: hbj4@msstate.edu



**Tim Ray, C.A., Co. Coordinator & Extension Agent**

**MSU-ES Harrison County**

Phone: (228) 865-4227

E-mail: [tim.ray@msstate.edu](mailto:tim.ray@msstate.edu)

## Controlling Large Patch in Lawns

During this time of year we receive numerous calls from homeowners asking about the “irregular circles” in their lawns. Even though there are several lawn fungal diseases, the one most often seen is Large Patch.

Large Patch is caused by a disease called *Rhizoctonia*. It can affect many turf types including St. Augustine, Centipede, and Zoysia and can be described as circular or irregular shaped patches of yellowing to light brown, thinning grass. Often you might see a circular patch of green grass in the center of these large, diseased patches. The disease will work outward creating larger areas of affected turf. This disease can develop rapidly when air temperatures are between 60 and 75 degrees and wet conditions are present, particularly on St. Augustine. These conditions are usually present in the spring and fall although the disease can persist during cooler summers and milder winters.



Photo: Large Patch developing in a centipede lawn in west Harrison County

Too often homeowners want to apply fertilizer to “help” the lawn look better. However, nitrogen fertilizer may cause this disease to spread more rapidly so be sure there is no disease present. You can contact your extension agent to help you identify this or other turf diseases.

What can you do to help control this disease? Reduce the amount of fertilizer during periods of disease pressure, reduce watering frequency by watering in the morning for longer periods two or three days each week (1 inch per week is recommended), and improve drainage and air movement in the soil. This can be accomplished by leveling the lawn to prevent standing water and aerating to provide relief to compacted soils to improve air and water movement.

What can you do if you have Large Patch? First of all, proper identification is important before you apply any pesticide. There are fungicides you can purchase that are proven to be effective on turf diseases such as Large Patch, some as a preventative which is more effective. The following are some active ingredients to look for when choosing a fungicide: Triadimefon, PCNB, Mancozeb, Thiophanate-methyl, Azoxystrobin, and Myclobutanil. There are several brand names of each for homeowner use that can be found at your local garden center. Always read the label before applying any pesticide and follow label directions.

### Calendar

**July 27 – Hancock/Harrison Forestry and Wildlife Association to Host Drone Aviation Applications in Land & Forest Management Program**— The HHCFWA will host a drone program at the Harrison County Extension office located at 9229 Hwy 49 in Gulfport beginning at 6 PM. Licensed drone pilots, Marshall Callicott and Adam Lindsey of Hood Industries will be our presenters. This program will be free to all current members of the HHCFWA, \$15 for non-members. A meal will be provided so preregistration is required by calling Harrison County Extension at 228-865-4227.

# Garden Calendar: July

## Planting

- Plant Pumpkin seeds for a Halloween harvest.
- Use Portulaca or Marigolds to fill in bare spots of flower bed.
- Root cuttings of Azalea, Boxwood, Camellia, Gardenia, Holly, and Poinsettia in coarse sand. Cuttings should be 4-6 inches from new growth with lower leaves removed.
- Plant now for color in the fall: Marigold, Zinnia, Celosia, and Joseph's Coat.
- Daylilies may still be planted.
- Start cuttings for house plants: Ivy, Wandering Jew, Philodendron, and Begonia.
- Plant fall vegetables: Cabbage, Parsley, and Collards.



## Fertilizing

- Do not fertilize Camellias after July 1.
- Fertilize Chrysanthemums around July 15.
- Fertilize all of the garden as you did in March.
- Fertilize lawns with well balanced fertilizer.



## Pruning

- Remove faded flowers from Crape Myrtle to encourage a second blooming.
- Pinch back Mums before July 15. Cut back broken or withered fern fronds.
- All Vegetables must be picked regularly to ensure continued bearing.
- When cutting Boxwood into a hedge, make sure the base is wider than the top to allow sunlight to reach base of plants.
- Remove dead limbs from trees and shrubs.
- Roses should be pruned to encourage fall blooms.
- Remove flowers from Basil and cut Mint to encourage new shoots.



## Mulch

- Check mulch on Azaleas and Camellias. Mulch should be at least 2 inches thick.
- Zinnias and Mums must be kept mulched to reduce necessary cultivation and conserve moisture.

## Miscellaneous

- Water Azaleas well because they are setting flower buds now for next year.
- Cut grass at 2.5 - 3 inches during hot weather.
- Water the whole garden deeply once a week.



## Home Accent

- Never leave house plants in a closed home over a vacation. Either water and place under a shady tree or have a friendly neighbor come in and water them for you.

## In Bloom

- Caladium, Cleome, Crape Myrtle, Four-o'clocks, Hibiscus, Impatiens, Liriope, Marigold, Mallow, Moonflower, Oleander, Periwinkle, Plumbago, Portulaca, Salvia, Ageratum, Zinnia, Balsam, Butterfly Weed, Canna, Cosmos, Dahlia, Daylily, Funkia, Gladiolus, Lily, Lycoris, Lythrum, Petunia, Phlox, Rudbeckia, Scabiosa, Shasta Daisy, Snapdragon, Snow-on-the-Mountain, Tuberose, Verbena, Veronica, Althea, Buddleia, and Montbretia.



**Eddie Smith, Ph.D., C.A., Co. Coordinator & Extension Agent**  
**MSU-ES Pearl River County**  
**Phone: (601) 403-2280 E-mail: eddie.smith@msstate.edu**

## Virginia Buttonweed

Virginia buttonweed (*Diodia virginiana*) is a spreading-perennial broadleaf weed. Its opposite, lance-shaped leaves produce small, four-lobed white flowers when in bloom and eventually develop small football shaped seed pods. It becomes very difficult to control in a lawn once established, since it has the potential to reproduce by seed, fleshy roots and from stem fragments. If not removed, clippings from mowing or weedeating can establish into mature plants. Hand removal of Virginia buttonweed is often ineffective, because any stem fragments or rhizomes left behind can produce a viable plant.



Virginia buttonweed flower

Virginia buttonweed favors moist to wet areas, but can spread throughout the lawn and can form very dense mats in established turf.

Pre-emergent herbicides provide only fair control of new seedlings and are ineffective from spreading by vegetative plant parts. Therefore, post-emergent herbicide applications are the most effective means of management.

Products containing phenoxy (hormonal) type chemicals such as 2,4-D, mecoprop, dicamba, fluroxypyr, etc. are effective if applied several times during the growing season. The sulfonyl-urea type chemicals including chlorsulfuron, metsulfuron, trifloxysulfuron, sulfosulfuron, etc. are also very effective at extremely low use rates.



Virginia buttonweed seed pods

**Caution should always be taken to calibrate application equipment and apply herbicides accurately to prevent turf injury. Read product labels carefully and completely, as not all products can be applied to all warm-season turf species.**



**Brad Jones, Co. Coordinator & Extension Agent**  
**MSU-ES Stone County**  
**Phone: 601-928-5286 E-mail: hbj4@msstate.edu**

## Fall Armyworms

Fall armyworms are extremely damaging insect pests of Mississippi hayfields and pastures and in Bermuda turfgrass settings. These caterpillars feed on lush, tender grass/plant leaves, primarily Bermuda grass, crabgrass, and sorghum/sudan type grasses in our area. Producers and landowners should look for fall armyworms throughout the growing season and be ready to treat quickly when damaging infestations occur.

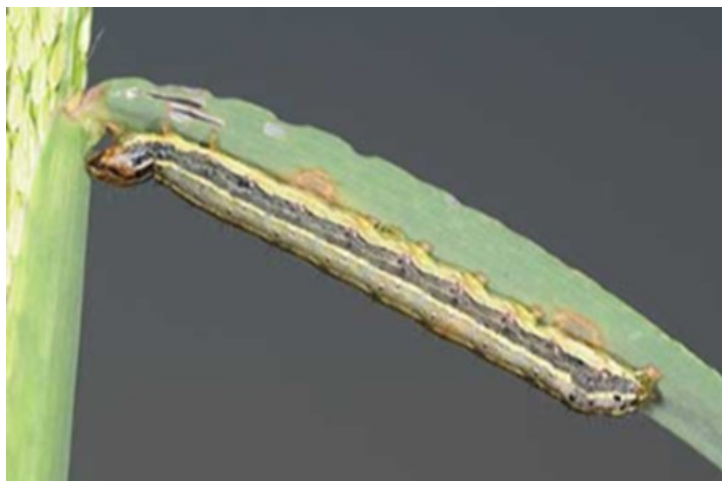
Fall armyworms are unpredictable pests. In some years, high populations do not occur until early fall. In other years, damaging infestations appear as early as June. I have observed army worms from June – December at various times over the past few years in South Mississippi.

Fall armyworm caterpillars vary in color depending on their stage of development and diet. Most are green or tan, but some can be dark brown to almost black, especially late in the year when numbers are high. The body is punctuated with dark spots, and mature caterpillars are about 1-1/2 inches long. Fall armyworm moths are about three-fourths of an inch long when resting with their wings folded. The forewings are gray to dark brown, but the underwings are white. You will not often see the moths unless you go out at night with a spotlight to look for them or happen to flush one from its daytime resting place.

Fall armyworm moths lay their eggs in clusters. The eggs hatch in 2–5 days, and the newly emerged larvae scatter out and begin feeding. They usually begin by feeding on the underside of the leaf blade. Their feeding habits result in tiny, white “windowpanes” in the leaf blades or a white frizzing of the leaf tips. Experienced producers watch for this white frosting or frizzing of the leaf tips as an early warning of fall armyworm infestation.

Caterpillars take about 14 days to complete their larval development, and it takes about a month to complete a generation. About 80 percent of total leaf consumption occurs in the last 2–3 days of the caterpillar stage. This is why fall armyworm damage can occur so quickly; grass that looked fine on Friday morning can be nothing but stems by Monday afternoon.

There are several options for effective management of fall army worms. To find what best suits your situation please check out the following MSU Extension Publications: Fall Armyworms in Hayfields and Pastures, Publication 2331, Control Insect Pests in and around the Home Lawn, Publication 1858. You may also contact your local MSU Extension Office to discuss treatment options with your agent.



**Like most caterpillars, fall armyworms eat 80 to 90% of the total leaf area they will consume in their final two or three day as caterpillars.**

# Harmful Garden Insects

For information on insect control visit: <https://extension.msstate.edu/node/6945>

**Southern Green Stinkbug**



**Leaf-footed Bugs**



**Colorado Potato Beetle**



**Aphids**



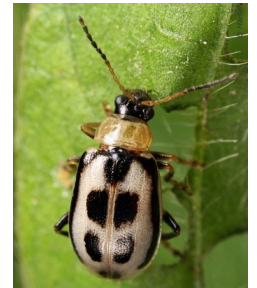
**Cutworm**



**Adult Leaf Miner**



**Bean Leaf Beetle**



**Whiteflies**



**Armyworm**



**Tobacco Hornworm**



**Spider Mites**



**Squash Vine Borer**



**Squash Bug**





**Ross Overstreet, Co. Coordinator/Extension Agent**

**MSU-ES Lamar County**

**Phone: (601) 794-3910**

**E-mail: [r.overstreet@msstate.edu](mailto:r.overstreet@msstate.edu)**

## Lawn Irrigation

As we move into the heat of the summer, we start to notice the effects of moisture stress more readily and frequently between rain events. One question I receive from homeowners typically is they want to know how much and how long to leave the sprinklers on. Honestly there are too many variables to give one cookie-cutter answer to this question. You will need to do some experimenting to determine what is needed for your lawn. It is recommended that your lawn gets one inch of water per week through irrigation or natural rainfall.

A way to tell how much your sprinklers are putting out is to use the tuna can technique. A tuna can is typically one inch deep and is an accurate and reliable way to measure the amount of water put out by your automatic in-ground irrigation system or your sprinkler attached to a hose that you move around yourself. You will want to place empty tuna cans at various spots around your yard within the range of your sprinkler(s). Turn on the sprinkler system and allow it to run for roughly 30 minutes. After 30 minutes, measure the amount of water collected in each can. If the cans collected an inch of water, then you know you need to water for 30 minutes. If the cans collected more or less than this amount, then calculate approximately how long you need to adjust the time up or down to apply the correct amount of water to your landscape so that it receives the recommended one inch of water in each watering session. If there is run-off before water application amount reaches the one inch mark, more waterings per week may be needed. This is especially true on clay soils or sloped terrain. Sandy soils may require more frequent and heavier amounts but let the turf tell you when its time to water. Don't always rely on the automatic sprinkler system you see running even during a rain event.

You may be able to only apply  $\frac{1}{2}$  inch per watering, so you would need to do this twice per week. On such lawns, core aeration would be highly recommended to help increase the rate at which the soil absorbs water. The best time to irrigate is early in the day, preferably before sunrise. This helps minimize evaporation loss and limits the time the lawn is wet, which reduces the potential for disease. Remember that deep watering promotes deeper root growth and produces healthy, durable turf with a deep root system that is better able to resist the effects of drought by accessing deeper water sources. Deep and infrequent application are the keys to a successful irrigation strategy.



**Drought stressed grass**



**Tuna cans used to measure sprinkler water output**

# Crosby Arboretum Events

## What Makes A Bird?

*Saturday, July 8, 9:30 to 10:30 a.m.*

Millions of people all over the world enjoy watching and identifying birds and learning to identify your neighborhood birds is a great way to connect to nature while building observation skills. **Pascagoula River Audubon Center Education Manager Katie Fetzer** will introduce participants to the four clues to bird ID: size and shape, color pattern, behavior, and habitat. Afterwards, we will put our observation skills to use and go on a bird walk around the property. It's fun to be able to name unknown birds, and even the most novice birders can enjoy success from the start! Limited to 20 participants. Bring binoculars if you have them. Loaner binoculars will be available. Best suited to children ages 8 and up. Children must be accompanied by parent or guardian. Non-member adults \$6; non-member child (under 12) \$3. Member adults \$2, member child \$1. Call 601-799-2311 to sign up.

## Let's Talk Bats!!

*Saturday, July 15, 10:00 to 11:00 a.m.*

Bats are one of the most misunderstood mammals in the world. **Mandy Sartain, Mississippi State University Extension Service**, will share her knowledge and expertise with these flying mammals and help to set the record straight. Across Mississippi, insect-eating bats contribute to a healthy environment and provide incredible benefits to our ecosystems. They are also a primary predator of night-flying insects. Mandy is well aware that "bats evoke different feelings and thoughts within different folks when they appear in the evening sky. Some are in awe of the flying mammals' acrobatics, while others are hesitant to appreciate their nightly presence." The fact remains, bats are a vital part of taking care of our environment! Best suited to children ages 8 and up. Children must be accompanied by parent or guardian. Non-member adults \$6; non-member child (under 12) \$3. Members free. Call 601-799-2311 to sign up.

## 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.