



Master Gardener Volunteer Program

Do you love gardening or would like to know more about gardening in Mississippi? A great way to learn more about gardening is the Master Gardener program. This program covers topics such as soil, insects, plant diseases and weed control among other great topics. The program is a total of 40 educational hours of material that is completely online and self-paced. The course will be available to complete from October 1 through December 2, 2024.



Once you complete the wonderful educational courses on these various topics, we then ask you to put all that great knowledge to work helping within your community. Work closely with other Master Gardener’s within your county on community service projects, answering horticulture questions at local events, and work with the 4-H members or community children about gardening. As this year’s registration is quickly approaching let’s hear from some of the current Master Gardeners on why they love this program.

“Learning how to care for lawns, shrubs and plants is great. Sharing that information is fun, but the friends and camaraderie are the best!” says Peggy Feinburg Master Gardener of Jackson County.

“I always loved gardening but really did not have much real knowledge. I wanted to meet like minded people. The master gardener program gave me both. Every time I volunteer, I learn so much and it’s fun. The other members in our county also love to share their knowledge and their plants!” says Terry Olsen Master Gardener of Jackson County.

If you are interested in becoming a Master Gardener, please follow the link <http://extension.msstate.edu/.../leadership/master-gardener> to register for the course. **Registration opens on August 13th and closes September 10th.** The cost of the program is an one-time payment of \$125 this covers the cost of your printed material that is given to you before the course starts and your membership with Mississippi Master Gardener Association. If you have any questions about the program or your local chapter do not hesitate to contact your local Extension Office.

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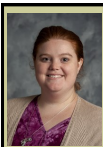
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Muscadines

Muscadines, a type of grape native to the southeastern United States, are particularly abundant in Mississippi. Known for their thick skins and robust flavor, muscadines have a long history in the region.

The first recorded muscadine vine was discovered by Sir Walter Raleigh's colony in 1554 along the Scuppernong River in North Carolina, known as the original Scuppernong vine.

Muscadines are well-suited to the warm, humid climate of the south. They thrive in well-drained soils and require minimal care once established. These vines are known for their natural adaptability, making them a popular choice for home gardens. They are highly resistant to common grape diseases and pests, which reduces the need for chemical interventions.



These grapes can be included in home plantings on fence-rows or homemade trellises. When planting muscadines, it's important to consider the type of flowers each vine produces. Muscadine vines can produce imperfect flowers, which have only female flower parts, or perfect flowers, which contain both male and female flower parts. Pollination is crucial for fruit production. A single vine with perfect flowers can pollinate up to eight surrounding vines with imperfect flowers. In a single-row planting, it is recommended to have a pollinator vine (one with perfect flowers) every third vine to ensure adequate pollination.

Muscadines require full sun for optimal growth and fruit production and prefer sandy loam soils with good drainage. Adding organic matter can improve soil fertility. Regular watering is essential, especially during dry periods, but overwatering should be avoided to prevent root rot. Pruning is necessary to maintain vine health and productivity. It helps control vine size and shape, promotes air circulation, and encourages the growth of fruitful canes.

The thick skins and high pectin content of muscadines make them ideal for making jams and jellies. Muscadines can also be used in pies and other desserts, adding a unique flavor and texture.

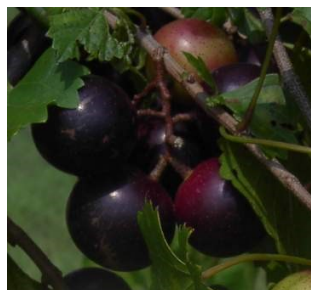
Muscadine Field Day

Thursday, August 29, 2024

9:00 a.m. until 11:00 a.m.

Experts from the MSU Extension Service, Mississippi Agricultural and Forestry Experiment Station, and the U.S. Department of Agriculture's Agricultural Research Service will discuss a variety of topics, including insects and diseases, best production practices, and cultivar selection.

This free program is from 9 to 11 a.m. The MSU Extension Service and Mississippi Agricultural and Forestry Experiment Station will host the event. The McNeill Experiment Station is located at 7 Ben Gill Road in Carriere. Come and discover which muscadine variety you like the best.



Garden Calendar: August

Prepare

- Plan beds for bulbs. Order Tulips, Hyacinths, Dutch Iris, Daffodils, Narcissus, and Amaryllis.
- Prepare beds for October planting by adding compost or leaf mold.

Plant

- Plant Daylilies in a sunny location. They will be well established before winter.
- Divide and transplant Louisiana Iris, Easter Lily, Canna, Liriope, Ajuga, and Shasta Daisy.
- Plant cool season vegetables: Broccoli, Cauliflower, Brussels Sprouts, Cabbage, Spinach, Potatoes, Lettuce, Carrots, Beets, Radishes, and English Peas.
- Mums should be planted for September bloom and fall color.
- Marigolds, Asters, Zinnias, and Celosia can be planted to replace faded annuals.
- Plant seeds of Calendula, Columbine, English Daisy, Forget-me-not, Pansy, Sweet William, and Violet.



Fertilize

- If acid loving plants including Azaleas, Camellias, and Gardenia show signs of chlorosis (yellowing of leaves), a treatment of Iron Chelate should cause leaves to regain their green color.
- Feed mums with a complete fertilizer every two weeks and water thoroughly until buds show color.

Prune

- Cut back annuals, such as Impatiens and Vinca to encourage fall blooms.
- Disbud Camellias, Dahlias, and Chrysanthemums to produce specimen blooms.
- Continue to remove dead heads in the garden to stimulate blooming.
- Cut back rose canes to 24-30 inches from ground for autumn blooms.
- Remove dead and damaged wood from trees and shrubs.



Water

- Water garden deeply, but infrequently throughout the month.
- Water early in the morning or in late afternoon. Water on leaves during the heat of the day can cause the sun to burn leaves.
- Potted plants and hanging baskets need to be watered daily.
- Make sure Azaleas and Camellias stay well watered, because they are forming flower buds for next year.

Miscellaneous

- Mow weekly and leave clippings on the lawn.
- Turn compost pile.
- Feed the birds.



In Bloom

- Ageratum, Angel's Trumpet, Balsam, Begonia, Browallia, Caladium, Canna, Celosia, Clematis, Dahlia, Four-o'clock, Funkia, Gladiolus, Lily, Hosta, Impatiens, Marigold, Periwinkle, Phlox, Portulaca, Rattle Box, Salvia, Snow-on-the-Mountain, Torenia, Vinca, Pink Zephyranthes Lily, Zinnia, Althea, Butterfly Bush, Crape Myrtle, Hydrangea, Oleander, Roses, and Tamarisk.



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Fall Weed Control Begins Soon!

Control of Winter annual weeds begins towards the end of Summer and beginning of Fall. Preemergence herbicides should be applied in late-August early September to prevent these annual winter weeds from becoming an issue. To be effective, pre-emergence herbicides must be applied before weed seed germination and before weeds emerge. These herbicides require 0.25 to 0.5 inches of rainfall or irrigation for activation so try to time the application within a day or two or expected rainfall, but not a torrential downpour where all of the product ends up being washed away.



All of the herbicides in this list can be used on established, southern turfgrasses. In some instances it may be beneficial to apply ½ the recommended rate and then reapply the remainder of the rate 4-6 weeks later to provide better control. However, **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, going 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 getting prepared for winter dormancy and encouraging a flush of growth can be detrimental.



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 Preventer Plus; Nature's Guide Corn Gluten Meal





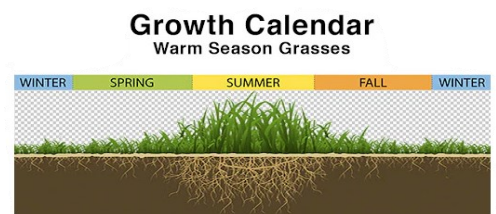
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Why We Don't Have Cool Season Grass Lawns

Cool season turfgrasses include bluegrasses, fescues, and ryegrasses. Here in Mississippi, bermuda, zoysia, centipede, and St. Augustine are considered the primary warm season turfgrasses, although we do have some centipede lawns with a mixture of carpet grass. There are other warm season grasses such as Bahia, buffalo, and kikuyu but we really don't consider these for our lawns here.

Having lived in Oklahoma for several years working in the lawn and landscape industry, I have seen my share of fescue lawns. We maintained primarily bermuda, zoysia, and fescue but, there were no centipede or St. Augustine lawns. Much like here, some would over-seed their warm season grass lawn with ryegrass in the fall to have lush green turf during the colder months, but it wasn't permanent. Once the weather starting warming up, the ryegrass was controlled to allow the warm season grass to flourish.

Cool season grasses, specifically bluegrasses and fescues, make beautiful lawns. Except for far northern Mississippi, do you ever wonder why we don't or can't grow cool season grasses as our main turfgrass this far south? The reason is warm season grasses have a genetic structure that allows them to thrive in hotter climates. Warm season grasses produce deeper roots than their cool season counterparts to help the grass remain green during long periods of drought. Most warm season grasses produce rhizomes and/or stolons (stems below and above ground) that allow the grass to spread and sprout new plants. It takes more energy to actively grow in hot weather, so these grasses are more efficient at carbohydrate (food for energy) production.



The difference in the genetic structures between cool season and warm season grasses is one carbon compound. Cool season grasses begin photosynthesis with a three-carbon compound, and warm season grasses begin photosynthesis with a four-carbon compound. These are called C-3 and C-4 plants respectively. In fact, close to 95% of all plants are C-3 plants.

Photosynthesis is the process by which plants use carbon dioxide and water to produce food (carbohydrates) and oxygen using sunlight. These carbohydrates can serve as energy sources or energy reserves. However, during hot, dry days, a C-3 plant will close its stomata, the microscopic openings in the leaves which allows for water transpiration and intake of carbon dioxide. This stomatal closure results in less water loss but no intake of carbon dioxide during photosynthesis. This is part of a process called photorespiration. C-4 plants, such as warm season grasses, avoid photorespiration.

As a result, cool season grasses are not as efficient at fixing carbon dioxide at the beginning of the photosynthetic process as warm season grasses. This results in less carbohydrates (or food) for stored energy. For this reason, as hot weather approaches creating stresses on the grass, cool season grasses do not have enough energy reserves to remain actively growing. Cool season grasses want to go dormant in the summer to save that energy. They are, however, actively growing in the spring and fall when fertilization is needed.



If you've traveled throughout the United States you've probably noticed a clear difference in the lawns in northern and southern areas. Cool season grasses make really nice lawns. In fact, the bluegrass lawns and fields throughout Kentucky, Missouri, etc. are some of my favorite. Unfortunately, due to one less carbon compound, I will not have a bluegrass lawn.



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Venomous Snakes

When it comes to snakes in Mississippi we have plenty of them. Even though they may be scary they also are useful. Snakes feed on rodents that can be very pesky to us humans so that alone makes them beneficial. There are 55 different kinds of snakes in Mississippi out of those only six are venomous. So you are way more likely to come in contact with a nonvenomous snake than a venomous snake. Whenever you are enjoying the outdoors always be alert and when you do encounter snakes it is best to leave them alone. Seventy five percent of people bitten by venomous snakes are harassing or trying to kill the snake when they are bitten. Snakes only bite when they feel threatened.

The best way to identify venomous snakes is to become familiar with their color patterns and other characteristics. There are nonvenomous snakes that have color patterns that are similar to those of venomous snakes. Most of the venomous snakes have a large triangle shaped head except the coral snake which has a narrow head. Head shape is a very useful in identification but is never 100 percent accurate. Also snakes can look different at different ages and regions where they live.

Always remember to, keep your property clean, and watch where you walk, sit or place your hands and whatever you do don't try and pick up a snake. There are many snake repellants on the market but they do not work. Below are pictures (Pictures from MWFP website) of venomous snakes found in Mississippi.



Copperhead *Agkistrodon contortrix* (northern Miss.)



Copperhead *Agkistrodon contortrix* (color variation)



Copperhead (juvenile coloration)



Cottonmouth *Agkistrodon piscivorus*



Cottonmouth *Agkistrodon piscivorus* (Delta & Gulf Coast coloration)



Cottonmouth (juvenile coloration)



Pigmy Rattlesnake *Sistrurus miliaris*



Pigmy Rattlesnake *Sistrurus miliaris* (Gulf Coast)



Canebrake Rattlesnake *Crotales horridus*



Canebrake Rattlesnake (juvenile showing single button)



Eastern Diamondback Rattlesnake *Crotales adamanteus*



Coralsnake *Micrurus fulvius*

Private Applicator Certification Training

The Mississippi Pesticide Safety Education Program has updated its online and face-to-face certification programs to meet this demand. The new mandated training and competency requirements from the U.S. Environmental Protection Agency are for applicators who use restricted use pesticides on farmland and need to renew or obtain certification.

The new trainings are designed to provide increased public health and safety benefits by raising safety standards to be consistent with commercial applicators. Trainings consist of video modules covering new safety, environmental protection and application procedures. These modules prepare applicators for the 55-question competency exam, which requires a score of at least 70%.

Mississippi's online and face-to-face certification programs are developed and delivered by the Mississippi State University Extension Service. For private pesticide applicator online training, visit <http://msuext.ms/dkp8h>. To learn about upcoming in-person trainings, visit <https://extension.msstate.edu/calendar> or contact your local Extension office. The new trainings cost \$60 per applicant.

The online private applicator training consists of video modules and an online proctored exam. While the video modules are accessible on mobile devices, the online exam will require a laptop or desktop computer, a webcam, adequate internet connection and valid photo identification. The online test will be proctored by the online proctoring system Honorlock. Alternatively, the private applicator exam can be taken either online or as a paper test at a local MSU Extension office.



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.

\$60 COST

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

Calendar of Upcoming Events

Date	Event
	PINE BELT BEEKEEPERS ASSOCIATION MEETING
August 8th	The Pine Belt Beekeepers Association meeting will be held at the Lamar County Extension office beginning at 6 PM. Dr. Jeff Harris will be our guest discussing Fall Hive Management
	MUSCADINE FIELD DAY
August 29th	This free program is from 9 to 11 a.m. The MSU Extension Service and Mississippi Agricultural and Forestry Experiment Station will host the event located at the McNeill Experiment Station at 7 Ben Gill Road in Carriere.
	PINE BELT MASTER GARDENERS FALL GARDEN DAY
September 27th	The Pine Belt Master Gardeners will host the Pine Belt Master Gardener Fall Garden Day at the Forrest County Extension Office beginning at 9 AM. No preregistration required.
	COUNTY FORESTRY ASSOCIATION FIELD DAY
September 28th	The Jones/Marion/Forrest/Lamar CFAs will host a Fall Field Day located at the Rocky Branch Community Center in Sumrall, MS beginning at 8 AM. The Field Day will include a tour of the ArborGen Research Variety plot. Registration is required by September 13th and includes a \$10 registration fee. Contact Ross Overstreet at 601-794-3910 to register or for more information.

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