



Pecan Scab

Pecan scab is the single most important disease of pecan in the Southeastern United States. It is caused by the fungal pathogen *Fusicladosporium effusum*. Pecan Scab produces small olive to black lesions on leaves, fruit shucks, and green twigs. Young tender tissue is more susceptible, and lesions are most often observed on the undersides of leaves. Current season twigs are infected during the green growing stage. Shuck infections are most damaging between fruit onset and shell hardening. By late August, white fungal growth can be observed on old scab lesions. Fungal spores are released during the day, reaching a peak in the late morning. Spores are dispersed by wind, rain, and dew. In order for a significant infection to occur, the plant surface must remain wet for an extended period of time. Severity of Pecan Scab in a year is heavily dependent on the frequency of summer rains.

Pecan scab overwinters on tissues infected in the previous year. It is generally accepted that inoculum sources remaining in the tree are more important than those that have fallen to the ground.

Control of Pecan Scab is best achieved by use of resistant cultivars. Pecan Scab can be controlled by use of fungicide, however, this requires specialized equipment and is impractical for homeowners. Those with susceptible pecans may consider hiring a tree service to treat their pecans.



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Planting a Wildflower Garden

Wildflowers are uncultivated flowers that can often be found growing naturally along roadsides and in meadows and fields. Wildflowers include a wide variety of plants including reseeding annuals and perennials. Growth habits are also diverse and include small herbaceous plants, shrubs, vines, and grasses. Because they are well adapted to our climate and capable of tolerating a range of soil and water conditions, wildflowers make excellent additions to the home landscape. Wildflowers also have the benefit of being attractive to bees, butterflies, and birds. Wildflowers are hardy and self-reproducing plants that can be grown with very little attention from the gardener.

When selecting wildflowers to include in your planting, it is a good idea to select plants that are known to tolerate the conditions of the site. Some wildflowers are better adapted to full sun, while others will thrive in the shade. Similarly, some wildflowers will better tolerate areas that tend to stay wet. As always, it is best to select the plant to fit the site rather than attempting to change the site to suit a particular type of plant.

Seeds of most wildflowers can be sown from September through November. Fall rains and cooler soil during winter will help plants grow stronger and bloom better. Seeds can also be sown in early spring; however, these will often not bloom until the following season. Due to the small size of most wildflower seeds it can be difficult to spread them evenly. Mixing seed with sand can make this much easier. Transplants of perennial shrub wildflowers can be introduced in the late fall or early spring.

Commercial seed mixes contain species of wildflowers that may not all be adapted to the area you desire to plant in. When purchasing seed, it is best to purchase seeds of the species you desire and mix them yourself. This will also allow you to keep seeds separated and sow them to establish grouped plantings. Wildflowers can be planted without the need for deep tilling, and fertilization is generally not necessary for wildflower plantings. Lightly raking after sowing can help ensure that the seeds have good contact with the soil. Lightly mulching the area with pine needles or straw prior to watering will help keep soil from crusting.

When planting wildflower gardens, it is a good idea to add a few planned elements to define the area. The inclusion of permanent design features such as bird feeders and benches can help make the wildflower area look more intentional. Educating neighbors on the benefits of sustainable wildflower planting areas is also valuable.



Garden Calendar: October

Plant

- Spring flowering bulbs should be planted this month, with the exception of tulips and hyacinths, which should be placed in the refrigerator for 6 weeks before being planted in late December or early January.
- Pot up Basil, Chives, Parsley, Rosemary, Sage, and Sweet Marjoram for that sunny kitchen window.
- Annuals to plant are Pansies, Violas, Pinks, Flowering Cabbage and Kale, English Daisy, Wildflower planting, Cornflowers, Larkspur, and Queen's Anne Lace.
- Perennials to plant include: Asters, Salvia, Hollyhock, Daylilies, Babies Breath, Iris, Shasta Daisy, Peonies, and Phlox.
- Many evergreens may be planted this month.

Fertilize

- Test soil in garden to monitor balance of minerals.

Prune

- Remove damaged and dead wood from trees.
- Pick blossom-like fruit of Golden Rain Trees and let dry for winter arrangements.
- Prune back annuals like Blue Salvia and Dianthus to the ground and mulch. They may go through the winter and bloom again.



Miscellaneous

- Dig up Caladiums now with foliage intact, allow to dry, remove dried foliage and store in peat moss in a cool dark place for replanting next year.
- Force bulbs for indoor show. Place bulb on gravel and water enough to cover the roots, keep in dark place until root system is established and sprout reaches 3 inches, bring gradually into the light and refill container with water to original level. Enjoy the blooms of Paper-white, Narcissus, Lily of the Valley, Jonquil, or Hyacinth in this way.
- Make sure the birds in your garden have food, shelter, and water.
- Place leaves in compost bin.



In Bloom

Mums, Marigolds, Periwinkle, Salvia, Sasanquas, Golden Rain Tree, Roses, Ageratum, Aster, Camellia, Celosia, Colchicum, Dahlia, Petunia, Salvia, Torenia, and Zinnia.



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Should I Winterize My Lawn?

How many times lately have you been to your local garden center only to notice there are so many fertilizer bags that say “Winterizer” or “Fall Lawn Food” on them? Then you may question which one is best for your needs. The answer is simpler than you think. But, to answer the question ‘Should I Winterize My Lawn?’ above, for now I’ll say Yes ...and No! While I am not saying don’t prepare your lawn for winter, you should be cautious when using winterizer type fertilizers.

Winterizer fertilizers are a controversial practice here in the south, mainly since our primary grass types are all warm-season grasses (Centipede, St. Augustine, Zoysia, etc.). Warm-season grasses begin to decline in growth rate around mid-late summer as shorter day-lengths approach. Cool-season grasses (fescue, bluegrass, etc.); however, are beginning their second growth cycle (first in the spring) during this time period and benefit from a winterizer much more than warm-season grasses. So, what should you do to prepare your lawn for winter?

First, let’s look at what each number on a bag of fertilizer represents. If you have a bag of winterizer fertilizer that reads 32-0-10, the numbers represent the percentage of Nitrogen (N), Phosphorus (P), and Potassium (K), respectively. Nitrogen promotes leaf and stem growth and although most winterizers are often void of phosphorus, it promotes root growth and fruiting and flowering in plants. Promoting growth is not what we want this time of year. Potassium is a very important nutrient in overall plant health. It helps to strengthen and harden plants from top to bottom, making them more tolerant of cold and stress. While all nutrients are essential for plant growth and/or development, potassium is the key element in winter preparation, particularly for warm-season grasses. Potassium promotes winter-hardiness.

Winterizer fertilizers, especially those containing a high percentage of nitrogen, are most adapted for cool-season grasses, promoting growth and hardiness to grass types that are in the fall growth cycle. Excess nitrogen applied late in the year to warm-season grasses may result in disease problems in the spring. A soil test will provide you with information about your current soil’s nutrition, and soil test kits can be acquired at your local Extension office. Most soil tests I’ve viewed in Harrison County indicate a need to add potassium. However, if your soil test results indicate you have plenty of potassium, then there’s no need to add more, or anything for that matter. So, to prepare your lawn for winter, apply the recommended amount of N, P, and K during the spring and summer but make sure it has the right amount of potassium for winter hardiness.



Lawn winterizers often contain a high nitrogen % that’s not beneficial to warm-season grasses.



This winterizer has a high nitrogen and iron content indicating it’s primarily for cool-season grass growth and green-up.



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Fall Chores

As cooler weather approaches, important tasks await the avid gardener. Great looking vegetable gardens, orchards, and home landscapes don't just happen. Plenty of elbow grease and hard work are required to be successful. Plants have to be fertilized, watered, pruned, weeded--the list goes on and on.

Attention to detail is extremely important when taking a proactive approach against disease. Gardeners who maintain healthy plants often use a combination of common sense strategies to keep leaf spots, wilts, root rots, and similar diseases under control. The following strategies can be carried out this fall and will likely maintain or improve the health of your garden.

Leaf spot diseases such as rose black spot, photinia leaf blight and holly tar spot can be reduced next year by removing fallen leaves before next spring. In the case of vegetable garden plants, remove this past season's crop debris from the garden. Most microorganisms which cause disease survive our winter conditions with little difficulty, so sanitation will help reduce such diseases as early blight and Septoria leaf spot of tomatoes in next season's garden.



While you're out in the garden, it would be a good idea to make a few notes about "what vegetables were grown where." This will allow you to devise a rotation strategy for next spring and avoid the mistake of planting the same vegetables in the same spot. Diseases have a way of building up if the same vegetable crop is planted too long in the same spot.

In the orchard, most canker and dieback diseases such as fire blight and black knot of plums will be less of a problem if infected branches are removed by pruning. Be sure to cut 6 inches or so below the last visible signs of infection. Clean and disinfect cutting tools between cuts to prevent spread of plant disease microorganisms. Ten-percent bleach solution (1 part bleach to 9 parts water) is a very good disinfectant to dip your pruning shears in after each cut to help decrease the spread of infection among fruit trees. Remember to wash and oil your pruning shears after use; otherwise, the disinfectant can rust them.

Remove "mummies" (old, dried-up fruit) which may be present on and beneath peach trees as a way to cut down on brown rot fruit disease. This is also helpful for bitter and black rots of apples. Diseased apples, which may still be on trees or fallen to the ground, should be removed to help cut down on these fungus diseases next year.

Fall is a great time for collecting soil samples to determine fertility needs for gardens, orchards, and landscape plantings. It pays to follow a recommended fertility program, since well-fed plants are less vulnerable to attack from diseases and other pests. At the same time you're gathering soil samples to identify fertility needs, collect duplicate samples to have your soil checked for nematodes. These pesky little creatures can rapidly build up and cause problems. Root knot and other nematodes can certainly cause problems at times.

Take advantage of these cooler temperatures to clean up your garden site. A proactive approach to disease is much more effective than reacting after a disease problem is underway in your landscape.



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Gulf Fritillary

The Gulf fritillary, *Agraulis vanillae*, is a common butterfly throughout the southern United States. Its range extends southwards through South America and the West Indies. Adults move northwards to breeding colonies, some making it as far as the Midwest. In late summer and fall, large numbers migrate south to Florida and beyond. These butterflies can be seen along roadsides, in fields and pastures, and in parks and backyards. The gulf fritillary is also a common visitor to butterfly gardens.

Adult gulf fritillaries have bright orange wings with black marking that span up to 3 1/2 inches. Females are darker in color and have more markings than the males. Female gulf fritillaries are also larger than the males. The undersides of the wings are brown with long silvery white spots.

The male gulf fritillary engages in a characteristic mating display. The male lands near the female and can be seen to repeatedly open and close his wings with the antennae of the female between them. Both male and female gulf fritillaries are protected from predators, especially birds, by the presence of glands along their side. When the butterfly is disturbed or senses danger, these glands emit a chemical with a distinct odor that leads to birds preferring to avoid them for other prey.

The gulf fritillary has several generations each year. Bright yellow eggs are laid singly on or near the leaves or stems of host plants. Preferred hosts for the caterpillars include purple passionflower, cork stem passionflower and several other passionflower vines. Eggs are also occasionally laid on lantana. This host preference

gives the gulf fritillary its other name "passion butterfly". Caterpillars are bright orange, with numerous black, branches of spines. Despite the impressive spines, gulf fritillary caterpillars are harmless, though they can swiftly defoliate host plants. The pupal stage is brown and closely resembles a dead leaf. Adult gulf fritillaries can be found through the majority of the year. They fly quickly and erratically but frequently stop at flowers. Preferred hosts for the adults include lantana, shepherd's needle, zinnia, aster, thistle, verbena and many others.





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Common Disease Problems with Snapdragons

High humidity, overhead watering, and plant debris may lead to increases in disease incidence. Common disease problems in snapdragons include anthracnose, botrytis blight, rust, powdery mildew, downy mildew, and root rots. Symptoms of anthracnose include yellow spots on leaves and stems which turn white with a brown border. Leaves may die, and anthracnose may lead to death of the plant if stems are girdled by lesions. Petals affected by botrytis blight will turn brown and will be covered with gray fungal growth. Downy mildew leads to stunted plants with leaves that curl downward. The underside of leaves will be covered by gray to white fungus, and yellow areas will be seen on the upper side of the leaf. Plants affected by downy mildew may fail to flower. Powdery mildew is easily identified by white fungal growth that appears on either surface of lower leaves, as well as on the stems of some cultivars. Root rots are usually first noticed due to wilting of the plant. Plants affected by Pythium root rot will have roots that are dark brown in color. The cortex of the root (outer tissue) can be easily separated, leaving behind the thread-like stele. Plants with Rhizoctonia root rot will have reddish brown lesions at the base of the stem. Rust disease leads to small yellow swellings on the leaves or stems. These open to release rust colored spores. Correct diagnosis of disease is important in making management decisions.



Sanitation is the most important factor in management of plant disease. Removal of fallen plant material from the growing area interrupts the life cycle of disease-causing organisms and will reduce overall disease problems. Watering by drip irrigation will reduce disease problems due to lessening of free water on the leaves and stems of the plants. Application of fungicides can be effective for management of foliar diseases of snapdragons. Copper fungicide and chlorothalonil are two common fungicides used for disease management in snapdragons

Insect pests of snapdragons include aphids, whiteflies, leafminers and a number of foliage-feeding caterpillars. Mites may also be a problem for snapdragons. It is important to regularly monitor plants to detect insect infestations early when they have both done less damage and will be easier to control. Control of aphids, whiteflies, and mites may be accomplished with applications of Neem oil or Insecticidal soap. Repeated applications may be necessary. Leafminers feed on the interior of leaves resulting in winding galleries. Spinosad insecticides are effective for control of leafminers. Caterpillars feed on foliage and may be controlled by a range of insecticides. Young, small caterpillars may be managed by application of *Bacillus thuringiensis* (BT) insecticides; however, BT does not offer effective control of larger caterpillars.

When employing chemical pesticides, it is the user's responsibility to understand and follow all label instructions. Special attention should be paid to allowable use, application rates, personal protective equipment required and reentry intervals. It is advisable to review product labels prior to purchasing a product. You may contact your county Extension office for information on herbicides, fungicides, and insecticides for use in flower production. Registration of chemicals and their approved uses changes periodically. Labels and further information on chemical management tools may be accessed at www.kellysolutions.com/MS/, www.cdms.net/, and www.greenbook.net.



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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.



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

Pearl River County Master Gardeners Fall Plant Sale

JACK READ PARK
200 GOODYEAR BLVD
Picayune, MS

Saturday
October 9th

9:00 a.m.
until
12:00 noon



