

# Horticulture Hints

for NORTHEAST Louisiana — Spring 2019

## Upcoming Events

**NELA Master Gardeners Spring Class**
March 7
6:30-9 p.m.
Ouachita Parish Extension Office Auditorium, 704 Cypress St., West Monroe
Pre-registration required.

**Other Master Gardener class dates in the Northeast Region to be announced.**

**NELA Master Gardeners Spring Plant Sale**
March 29-30
The Market at Seventh Square
1700 N. Seventh St., West Monroe

### Northeast Region Horticulture Agents:

**Kerry Heafner**
**Morehouse, Ouachita and Union parishes**

**Donna Lee**
**East Carroll, Madison and West Carroll parishes**

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**Catahoula, Concordia and Tensas parishes**

**Carol Pinnell-Alison**
**Caldwell, Franklin and Richland parishes**

Hello! Welcome to the first issue of Horticulture Hints specific to the Northeast Region of Louisiana! From now on, information contained in the first two pages of Horticulture Hints will be pertinent to our area. I hope you find it informative and helpful.



Potatoes grow in a garden bed.

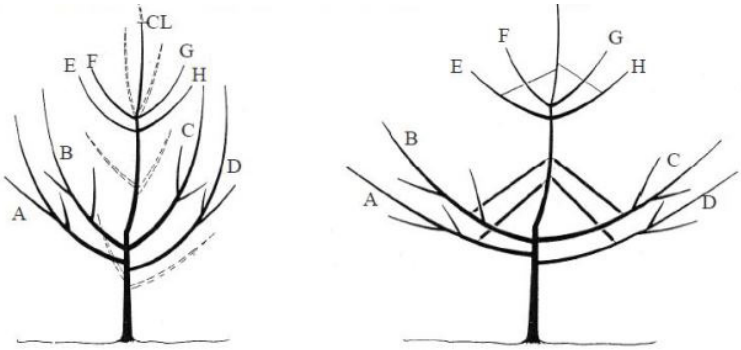
There's a lot to do this time of year in our gardens and landscapes, so let's get to it!

For vegetable gardens, late winter and early spring are good times to replenish cool-season crops like lettuce, Swiss chard, broccoli, cabbage and cauliflower. Mid-February is time to get seed potatoes planted if Mother Nature is cooperating. It's been a wet winter! And pieces of seed potato are more likely to rot in wet soils than in drier soils. Cut pieces of seed potato so each piece has no fewer than two eyes. Dipping the cut sides in horticultural sulfur will help keep fungal pathogens at bay while they sit in the ground waiting to sprout. Some gardeners let the cut pieces cure for a few days before planting. Others plant the pieces right away. Do what works for you.



Red Lasoda potato

Tomato seeds should be started in mid-February for transplanting in late March or early April. Tomatoes need warmth, so using a heat mat may be necessary if winter wants to hang on. Tomato seeds can be started in just about any container — provided adequate drainage is provided. Good quality seed-starting media are available in garden centers, but any good potting soil will also work fine. Seeds should be sown at one-quarter of




**Pruning a 2-year old apple tree. Illustration provided by UMD Extension.**

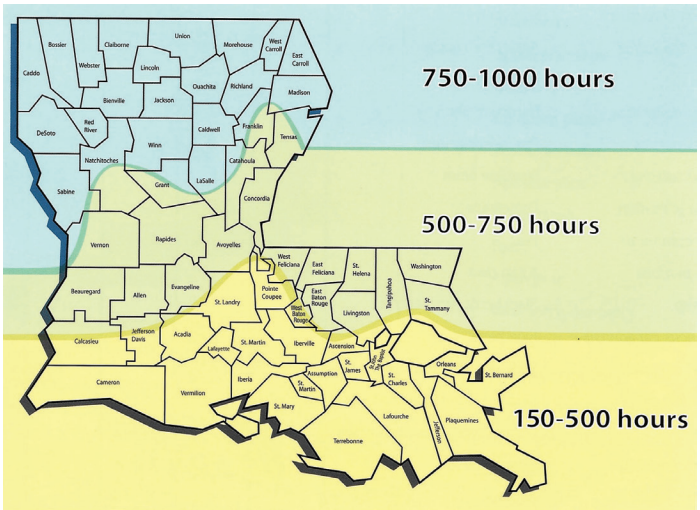
an inch deep, and the soil should be kept moist. Seeds germinate in five to seven days.

Late winter and early spring are the perfect times to give home orchards some attention.

Pruning is a task that everybody loves to hate. But there's no need to be afraid of pruning your fruit trees. Pruning is necessary for fruit trees to be productive. You're not going to kill the tree unless you cut it to the ground or otherwise severely wound the vascular tissue.

However, pruning is not a random chore. Some thought must go into which branches are cut. How you prune depends on the type of fruit tree you're working on. When pruning, first remove the "three D's": diseased, damaged, and dead. Branches showing signs of fungal infection should be burned.

Apple, pear, pecan and persimmon trees are usually pruned to a central leader system or a modified central leader system. The central leader is a single trunk from which three or four scaffold branches emerge at intervals up the trunk. Scaffold branches are stronger and more productive when they are at angles ranging between 45 and 60 degrees the central leader. On apple and pear trees, spur shoots will occur on branches 2 years old or older.




**Chilling hours below 45 degrees.**

Mayhaws, plums and peaches are typically pruned to either a modified open center system or to an open center system, also called an open vase system. These pruning systems are designed to allow maximum sunlight penetration in tree canopies and to make picking fruit easier for the grower. Just as in the central leader pruning system, wide branch angles mean stronger branches, which is beneficial in years when fruit production is heavy.

# Chill hours

For some of us, winter is a welcome reprieve from the sizzling summer heat, but cold temperatures are actually beneficial to fruit trees.

Deciduous trees, which include both natives and fruit trees, require a minimum number of hours below 45 degrees Fahrenheit throughout the fall and winter for flower and vegetative buds to break dormancy in spring. This is the "chilling requirement." The number of chill hours an area receives during winter varies from year to year, and the number of required chill hours varies widely among tree or fruit species and varieties. During an average winter, north Louisiana can expect between 700 and 1,100 chill hours. That may seem like quite a range, but our winters can be highly variable. The winters of 2015-16 and 2016-17 were atypically mild. The result? Few peaches in 2016 and none in 2017. The winter of 2017-18, on the other hand, was cold long enough to yield good peach crops.

Numerous models for calculating chill hours exist. The model typically used for fruit tree production in our area and is the "below 45 model," which is simply a total number of hours below 45 degrees.

There are several web-based applications that can be accessed for finding chill hours our area has received. Don't be surprised if each application gives you a slightly different total for the number of chill hours during the time frame requested. The closest weather station to Monroe and West Monroe that is operated by the LSU AgCenter is at the Sweet Potato Research Station in Chase. This can be accessed on the web by going to weather.lsuagcenter.com, then clicking on "Agriclimatic Tools." Under the Report tab select "chill hours." Under the Station tab, choose Chase (Sweet Potato). Then indicate the months during the fall and winter for which you want chill hour reports. You can search a maximum of one month at a time and then total the chill hours for the fall and winter seasons. So, if we total chill hours for October, November and December of 2018 through Jan. 23, 2019, we get a total of 399.16 chill hours. According to getchill.net, West Monroe had 397 chill hours between Oct. 1 and Jan. 23 using the below 45 model, a number very close to the AgCenter calculation for Chase.

*Kerry D. Heafner*
*Area Horticulturist for Morehouse, Ouachita, and Union parishes*

# Introducing the 2019 Louisiana Super Plant Selections

The Louisiana Super Plant program is an educational campaign of the LSU AgCenter that identifies superior plants for Louisiana landscapes. Louisiana Super Plants have gone through rigorous trials at multiple AgCenter locations across the state of Louisiana and have been approved by the Louisiana green industry. Louisiana Super Plants are considered to be "university tested and industry approved." Moreover, in 2019, the Louisiana Super Plants program has partnered with Certified Louisiana, a program of the Louisiana Department of Agriculture and Forestry. Homeowners can rest assured that when choosing Louisiana Super Plants, they are getting top-performing plants that will thrive in Louisiana's landscapes.

Each year since 2010, the LSU AgCenter has highlighted the highest-quality landscape plants for induction into the Louisiana Super Plants Program, and 2019 is no exception. The spring 2019 inductions offer two amazing selections. The first of the 2019 inductions is Lemon sedum. Lemon sedum has fantastic bright lime-green foliage that brings eye-catching texture to almost any planting area. Lemon sedum should be planted in full sun in well-drained areas. It can be grown as a mounding groundcover or used in container plantings. When planting in containers, Lemon sedum can be a solo planting that can create a small ball-shaped growth habit, or it can be planted in a companion planter as a great "spiller" plant. These plants can be root hardy and overwinter well in Louisiana, but they can also be replanted as an annual if desired. Moreover, this sedum is drought tolerant and loves the heat, making it perfect for any water-conscious gardening areas.

The second of our 2019 warm season selections is Lime Sizzler Firebush. This is an amazing root-hardy tropical for the Louisiana landscape. The showy, lime-green, variegated foliage is sure to attract attention from anyone passing by. That's not the only eye-catching aspect of the plant. The bright red-orange tubular flowers attract hummingbirds throughout the summer, making this one of the most hummingbird-visited plants in our garden. Plant in full sun for the most stunning color and expect more uniform green foliage if grown in shade. You can plant Lime Sizzler Firebush early in the spring or late into the summer, but we recommend planting in the spring to get the most out of the planting. Lime Sizzler Firebush thrives in well-drained soils, but it will also do well in heavier soils. Being a root-hardy tropical, this plant will die back to the roots in late fall, and you can cut it back in the winter. This will help ensure healthy growth in the spring. In the landscape Lime Sizzler Firebush will often get 3 feet by 3 feet in size, but it can grow up to 5 feet by 5 feet if the proper conditions exist.



Lime Sizzler Firebush.

## Lime Sizzler Firebush

- Root hardy tropical; regrows from roots.
- Showy lime green variegated foliage.
- Bright red-orange tubular cluster flowers.
- Attracts pollinators and hummingbirds.
- Plant in early spring or late summer.
- Great in landscapes or containers.
- Needs full sun and prefers well-drained soil, but also does well in heavier soils.
- Can grow up to 5′ x 5′ wide, but most years will be 3′x 3′.



Lemon Sedum.

## Lemon Sedum

- Fantastic lime green color.
- Plant in full sun.
- Foliage provides eye-catching texture.
- Great "spiller" container plant or mounding ground cover.
- Drought tolerant and heat loving.
- Treat as an annual but can be cold hardy.
- Also great in xeriscapes or rock gardens.
- Sold as Lemon Coral and Lemon Ball.

Look for the 2019 spring Louisiana Super Plant selections and all Louisiana Super Plants at your local nursery or garden center today!

*Dr. Jeb S. Fields*
*Ornamental Horticulture Specialist*

# Checklist for March, April and May



- Plant warm-season bedding plants beginning in mid-March (south Louisiana) or mid-April (north Louisiana) and continuing through early May. For best results, plant petunias by mid-March and wait to plant periwinkles (vinca) until late April.
- After spring bulbs that reliably return each year have finished flowering, wait until the foliage turns yellow before cutting it off. Food is being manufactured and stored for next year's blooms.
- Mulch plants to reduce watering requirements, suppress weed growth and minimize soil temperature fluctuations. Excellent mulches are pine straw, chopped leaves and pine bark. Mulch should be applied 2 inches thick for effective weed suppression.
- Divide and transplant older, large clumps of chrysanthemums in early March. Failure to divide plants can result in weak, spindly growth with few flowers.
- Coleuses are great bedding plants for Louisiana's landscapes. Try some of the newer sun-loving varieties in sunny beds.
- Fertilize shrubs in the spring using a general-purpose fertilizer. Carefully follow the label directions.
- Watch for insect problems this spring. Lace bugs on azaleas and aphids or whiteflies on gardenias are common. Also examine camellias, sasanquas and hollies for scale insects on the lower foliage. Control with acephate, imidacloprid or horticultural oil sprays.
- To encourage more rapid reblooming, pinch off old flowers on bedding plants after their first flower cycle is completed this spring.
- Roses may develop insect problems. Watch for aphids on tender new growth, thrips on flowers and cucumber beetles on foliage. Beetles are especially a problem if a vegetable garden is nearby.
- Garden centers will have many crape myrtles in May and June. Plant these shrubs and trees (depending on the variety you select) for great flowering all summer. Most varieties also have exfoliating, colored bark.
- If your crape myrtles have had problems with crape myrtle aphids and the unattractive, black sooty mold they cause, treat your trees now to prevent problems this summer. Apply a drench of imidacloprid insecticide to the base of the tree, and the tree will be protected from aphids all summer.

*Jeb Fields*

# Spring Vegetable Garden Must Do's

Paying attention to the local forecast is extremely important in early spring. Technically, our average last freeze dates are March 15 for south Louisiana and April 1 for north Louisiana. However, there is always a chance that a freeze or frost may occur after these dates. Crops grown in the spring season are not tolerant of low or freezing temperatures. Really pay attention to the local forecast. Make a sound decision on planting at the estimated date listed above or waiting a bit longer. The last thing you want to do is start off the season on a bad foot and lose all of your tomatoes or cucumbers to a late freeze. Been there, done that! It is one thing to lose a crop to something out of your control, but losing a crop to impatience is never fun.

# Vegetables to Plant

## ...in March

Direct-plant snap bean, Swiss chard, radish, lettuce, collard, mustard, turnip and sweet corn seeds into the ground. Plant tomato, pepper and eggplant transplants after March 15 in south Louisiana and April 1 in north Louisiana. Cantaloupe, squash, cucumber and watermelon seeds and transplants need warmer soils to perform their best. Make sure all frosts are over before planting these. Technically, you can use the same dates given for other crops (March 15 and April 1), but to be on the safe side, you might wait a week or two extra for cucurbit crops.

## ... and in April

Plant snap beans, butter beans, radishes, collards, cucumbers, eggplant, cantaloupes, okra, southern peas (field peas), peanuts, pumpkins (for a really early harvest), winter squash, summer squash, sweet corn, sweet potatoes (plant roots in late April), tomatoes (transplants), peppers (transplants) and watermelon. Remember that most pumpkins require 90 to 120 days to reach full maturity, and some giant pumpkins may even require up to 160 days before they are ready to be harvested. These days must all be frost-free. If you are aiming to harvest pumpkins at or a little before Halloween, adjust your planting date according to the variety of pumpkin you are planting. Typically, small to medium-sized pumpkins are planted from late June to the first week of July for a Halloween harvest. Read the seed catalogues and seed packages and figure the date you should plant based off of when you want to harvest. For okra lovers, mid-April is the earliest time I would plant this crop. Make sure the soil is warm. Planting early simply stresses okra.

## ... and in May

Most spring vegetables can be planted in May because the soil has warmed and danger of frost has passed.



Plant sweet potatoes (cut vines or "slips" that grew from the potato piece you planted in April), okra, southern peas, pumpkins, peanuts, sweet corn, watermelon, cucumbers, butter beans, squash, cantaloupes, collards and eggplant (transplants). Snap beans, butter beans, sweet corn, tomatoes and peppers (transplants) should be planted in the early days of May to prevent poor fruit set as a result of high temperatures. Sweet corn seed should also be planted early as worm control becomes more difficult as the season progresses.

# Crop Highlights

## Sweet corn

Planting corn early may reduce exposure to the corn earworm. The earliest planting should be made seven days before the average last frost date for your area. Plant every two to three weeks to provide a continuous supply of sweet corn. Remember to plant the same variety in a block of at least three rows side by side at each planting. This will help ensure good pollination and well-filled ears. Planting a yellow corn adjacent to a white corn in small gardens may cause bicolor corn ears to form because of cross-pollination. To avoid cross-pollination, wait three weeks between planting



varieties. When planting sweet corn, drop two or three seeds every 8 to 12 inches in the row and cover to about one-half inch to 1 inch deep. After the seeds germinate and the plants are 3 to 4 inches tall, thin to one plant per hill. Side-dress a 100-foot row with 1½ to 3 pounds of calcium nitrate when the plants are about 12 inches tall and again when the plants are 24 to 36 inches tall. One pint of fertilizer, or 2 cups, is about 1 pound. Three ounces of seed will plant a 100-foot row. Dust or spray silks with Sevin every two to three days after silks first appear and until silks begin to dry. This treatment will help reduce corn earworm damage. Harvest sweet corn early in the morning while it is still cool. Chill or cook immediately after harvesting. Sweet corn that is ready to harvest should have a well-filled ear. Kernels should be bright and plump, and their juice should be milky.

Varieties such as Seneca Horizon, Funks G90, Gold Queen, Silver Queen (white) and Golden Cross Bantam perform well. Many other varieties are available and do well in Louisiana. Give Ambrosia, Incredible, Miracle and Delectable a try as well as Temptation, Obsession, Honey and Cream, Peaches and Cream, Luscious and any of the XTRA-Tender numbered series.



## Snap beans

Plant bush varieties every two weeks, starting right after the average last frost date. This will provide a continuous harvest for an extended period. One-half pound of snap bean seeds will plant a 100-foot row. Plant seeds 1 to 2 inches apart in the row. High temperatures at bloom may cause many of the flowers to fall off. Generally, snap beans do not produce well when planted in late May. For best quality, harvest pods before the developing seeds cause the pod to bulge. Beans can be held for up to seven days at 40 to 45 degrees Fahrenheit and 90 to 95 percent humidity.

Pole snap bean varieties produce larger yields because they produce for a longer period than bush varieties. Space seeds about 6 to 12 inches apart. About 2 to 3 ounces of seeds will plant a 100-foot row. For pole snaps, the All-America Selections winner is Kentucky Blue. Rattle Snake and McCaslan have done well in Louisiana. For those who want a bean that sets well in the heat, try the vigorous yardlong asparagus bean and harvest pods when 12 to 18 inches long.



## Tomatoes

Plant tomatoes in a well-drained site that receives six to eight hours direct sunlight. If the garden is too shady, few blossoms form and many of those that form fall off before setting fruit. Begin transplanting in mid-March in south Louisiana and at or after April 1 in north Louisiana — after the danger of frost is over. If a frost occurs, you will need to cover the newly planted plants! Early blight is a common disease in tomatoes. Spray with copper fungicides early in the season at the base of the plant. Switch over to garden herbicides later in the season. Scout weekly for insects. Space tomato plants 18 to 24 inches apart. Fertilize with 6 to 7 pounds of 13-13-13 per 100-foot row prior to planting and side-dress at first and second bloom with calcium nitrate or potassium nitrate. Tomato vines may be determinate or indeterminate. Indeterminate types have a vegetative terminal bud that continues to grow. Determinate types have a fruiting terminal bud that keeps the plant from growing beyond a predetermined height. Determinate types are better suited for container gardening. Indeterminate types will need to be staked in the garden. Indeterminate varieties that grow well in Louisiana include Better Boy and Big Beef (large); Champion and Pink Girl (pink); and Sweet Million, Sweet Chelsea, Jolly, Small Fry, Juliet, Elfin, Cupid, Mountain Belle and Sun Gold (cherry). Determinants have very productive vines that grow to heights of 4 feet. Determinants should be pruned only once or twice up to the first cluster. Recommended determinate types for Louisiana include Celebrity (an All-America Selections winner, best taste); Carolina Gold, Florida 91, Mountain Spring, Cherry Grande (cherry) and Floralina. Also try Sun Master, Sunleaper, Mountain Spring and Phoenix.

*Note: The tomato spotted wilt virus has nearly eliminated tomato production in some areas. If you had trouble with it, plant Bella Rosa, Mountain Glory, Amelia, Quincy and Fletcher varieties.*

## Bell peppers, eggplant and okra

Wait to transplant or direct-seed okra, bell pepper (transplants) and eggplant (transplants) until the weather has warmed considerably. These vegetables are sensitive to cold soils and weather. Once stunted by cool weather, they recover slowly. A garden site with full sun is required for growing bell peppers. Any shade will greatly reduce fruit set. Space peppers about 18 inches and eggplants 18 to 36 inches apart. Okra should be spaced 12 to 36 inches apart depending on variety.

Recommended open-pollinated varieties of bell peppers include Capistrano, Jupiter and Purple Beauty. Recommended hybrid bell



peppers are Revolution, Heritage and the large King Arthur, Valencia, Paladin and Plato, Camelot (X3R), Aristotle, Gypsy, Tequila (purple) and Mavras (black). *(Note: Tomato spotted wilt virus has hindered bell pepper production in many areas.)* The varieties Stiletto, Patriot and Excursion II are resistant to tomato spotted wilt virus. Try these varieties if you have had trouble producing bell peppers.

Recommended hybrid eggplant varieties are Fairy Tale, Calliope, Classic, Epic, Dusky, and Santana. Green eggplant varieties produce well in Louisiana and are less bitter than the purple varieties in hot, dry weather.

## Cucurbits

Plant cucurbits outdoors well after the danger of frost is over. Do not keep transplants in pots longer than three to four weeks prior to planting in your garden.

Recommended cucumber varieties for slicing are Dasher II, General Lee, Thunder, Speedway, Poinsett 76, Slice More and Intimidator.

For pickling, try Calypso, Fancipak, Jackson and Sassy.

Recommended summer squash crooknecks are Prelude II, Dixie, Gentry, Goldie, Supersett, Destiny III and Medallion.

Recommended yellow straight-neck squash varieties are Goldbar, Liberator III, Enterprise, Cougar, Multipik, Patriot II, Superpik and Fortune.

Recommended zucchini varieties are Justice III, Independence II, Tigress, Lynx, Spineless Beauty, Senator, Gold Rush (AAS) and Payroll.

Recommended scallop or patty pan squash varieties are Peter Pan and Sunburst.

Recommended hard-shell (winter) squash varieties are Waltham Butternut, Butternut Supreme, Early Butternut, Tay Belle Table Queen, Honey Bear, Cream of Crop, Table King and Imperial Delight.

Viruses are a big problem in squash production. Try planting some of the new virus-resistant varieties: Prelude II and Destiny (yellow crookneck); Liberator and Conqueror (yellow straight neck); and Declaration, Payroll, Judgment III, Revenue and Independence (zucchini).

Recommended cantaloupe varieties are Ace, Aphrodite, Athena, Primo, Magnum 45, Super 45, Ambrosia, Earlidew (honeydew type) or Honey Max (honeydew type).

Recommended watermelon varieties are Crimson Sweet (OP — open pollinated), Jubilee II (OP), Fiesta, La Sweet (OP), Jamboree, Jubilation, Patriot, Regency, Royal Star, Royal Jubilee, Royal Sweet, Sangria, Stars 'n Stripes and Starbrite. Seedless varieties include Revolution, Summer Sweet 5244, TriX Carousel 212 or 313, Cooperstown and Millionaire. Ice box type: Sugar Baby. Yellow: Summer Gold and Tender Gold.

Apply 2 to 3 pounds of 8-24-24 or similar fertilizer per 100-foot row before planting. Side-dress with 1½ to 2 pounds of a complete fertilizer (13-13-13) per 100 feet of row when vines begin to run. Remove all but three to four well-shaped fruit from each plant when they reach 4 to 5 inches in diameter.

Pumpkins are much like winter squash, but the flesh often is coarser and stronger. Good varieties to try include Atlantic Giant, Prize Winner, Aladdin, Big Autumn, Merlin, Autumn Gold, Magic Lantern, Orange Smoothie, Sunlight, Early Abundance, Darling, Munchkin and Baby Boo. Find more information about growing different pumpkin varieties on the LSU AgCenter's website by searching "2016 pumpkin variety results."

Cucurbit hints: Don't be concerned if the first several squash fruits fall off the plant before they reach an edible stage. The first flowers to form in early spring squash are the female flowers (with the miniature fruit). Male flowers do not form at that time, so no pollination takes place. In a few days, though, the male flowers appear and normal fruit set begins. In summer, the process reverses — with the male flowers usually developing first and the females later.

Cucumber yields may be doubled by growing plants on a trellis. To get cucumber vines to climb a trellis or fence, you may need to tie them to the trellis in the beginning. Once they catch hold, they will continue to climb.

Use pesticides on cucurbits late in the afternoon to avoid harming the bee population. Be very careful to follow recommended rates and not use pesticides that are particularly harmful to bees in your vegetable garden. Side-dress cucumbers, squash, watermelons and cantaloupes with 1½ pounds of calcium nitrate per 100-foot row as vines begin to run. Weekly applications of a general-purpose fungicide (Daconil or Maneb) starting at first bloom will protect the foliage and improve yield. Plastic mulch will reduce fruit rot and enhance the production of cantaloupes and the other cucurbits.





## Lima beans (butter beans)

Lima beans require warmer soil (70 degrees Fahrenheit, at least) than snap beans to germinate, so wait until soil warms (usually in early to mid-April) before planting. Bush varieties to plant are Henderson's Bush, Fordhook 242, Thorogreen, Bridgeton, Nemagreen, Dixie Butterpea or Baby Fordhook. Plant lima beans every two weeks through mid-May to extend the harvest. One-half pound of seeds will plant a 100-foot row when three or four seeds are planted every 12 inches within the row. Recommended pole lima beans are King of the Garden, Carolina Sieva, Willow Leaf, Christmas and Florida Speckled. Plant seeds 6 to 12 inches apart. One-quarter pound of seed will plant a 100-foot row.

## Sweet potatoes

Plant seed potatoes (roots) during April and into May. Purchase weevil-free seed (root pieces). Transplants (the vines or slips) should be ready to cut in four to five weeks. Sweet potato slips (transplants) can be set out in late April if soil is warm enough (greater than 70 degrees Fahrenheit). Cut plants from plant bed about 1 inch above soil line and transplant.

Cutting rather than pulling helps reduce sweet potato weevils and many disease problems. Cuttings develop feeder roots within a day or two if the soil is warm and moist. Holding the cut slips in the shade for two to three days before transplanting will help increase survival. Use a low-nitrogen fertilizer, such as 6-24-24 or 8-24-24, at 2 to 3 pounds per 100-foot row as a preplant fertilizer.



## Okra

The soil needs to be warm (65 to 75 degrees Fahrenheit) for okra seeds to germinate. Soak seeds overnight in tap water to soften seed coat before planting. Plant only 2 to 3 times as deep as the seed is wide. Keep soil moist until the seedling emerges.

Recommended varieties are Emerald, Annie Oakley (hybrid), Cowhorn, Cajun Delight-AAS, Red Burgundy and Clemson Spineless.



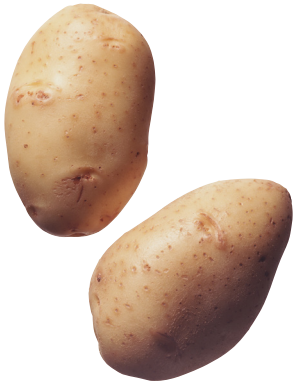
## Peanuts

Shell peanuts and plant about four seeds per foot of row. Plant peanuts in April and May. Spanish peanuts have the smallest seeds. Runner types have intermediate-size seeds, and Virginia types have the largest. Fertilize lightly with 1 to 2 pounds of 8-24-24 or similar fertilizer per 100-foot row. Soil should be high in calcium. Try not to follow peanut crops with tomato crops. Rotate out of the nightshade family between seasons to reduce soil-borne disease buildup.

## Onions, shallots and garlic

Harvest mature onion, garlic and shallot bulbs during the early summer. When mature, the tops begin to turn yellow or brown and fall over. Pull them, trim tops and roots and lay the plants on top of the row or place in burlap sacks for a couple of days to let them dry, if weather permits. Then store them in a cool, shaded and well-ventilated place. (Ideal storage for onions after drying is at temperatures of 45 to 50 degrees Fahrenheit in a place with 65 to 70 percent relative humidity.)





## Irish potatoes

Begin digging 90 to 110 days after planting. Plant tops start turning yellow as tubers reach maturity. Allowing the potatoes to remain in the ground a few days after tops die or after tops are cut will help set or toughen the skin and reduce skinning, bruising and storage rot.

To keep potatoes for several weeks, allow cuts and skinned places to heal over at high temperatures. Then store in a cool, dark place with high humidity. Do not store where they will receive light because they will turn green and develop an undesirable taste.

*Dr. Kathryn Fontenot*
*Community and School Vegetable Garden Specialist*

# Lawn Weed Control

Herbicides can be effective tools for reducing weeds in your yard, but the best way to manage weeds is to grow a thick, healthy lawn. Lawns that are managed properly are lush and healthy, with few weed problems.

Visit www.lsuagcenter.com and search for the keywords "lawn BMP" for more information on growing a beautiful lawn.

## Pre-emergence herbicides

Weed preventer, or pre-emergence, herbicides can be helpful in preventing the emergence of several summer annual grasses and broadleaf weeds. Pre-emergence herbicides may be applied safely in late winter to early spring to all established southern lawns.

Most pre-emergence products for home lawns are granular and should be applied with drop or broadcast spreaders and "watered in" soon after application. These types of herbicides kill weeds as they germinate, so application timing is extremely important. You have to apply before the weeds, such as crabgrass, germinate. They will not kill any existing winter weeds.

Residents in the New Orleans area and the southernmost areas of the state should apply pre-emergence herbicides in late January or early February (definitely before Valentine's Day) and then follow up with another application in mid-April. From Alexandria to Baton Rouge, residents should apply around Feb. 10th, with a follow-up application in late April. If you live in north Louisiana, try to get these herbicides applied in late February to early March, with a follow-up application by mid-May. Some pre-emergence herbicide trade names to look for are Scotts Halts, Barricade, and Hi-Yield Weed and Grass Stopper with Dimension. Consult product labels concerning rates and application techniques.

## Post-emergence herbicides

Post-emergence herbicides are used to kill weeds that already have emerged in the lawn. Winter broadleaf weeds usually are prevalent in the late winter to early spring throughout the state. These broadleaf weeds often can be controlled by using selective liquid post-emergence "trimec type" herbicides that contain formulations with three weed-killing ingredients – 2,4-D; dicamba; and mecoprop.

Some examples of broadleaf herbicides are Bayer Advanced Southern Weed Killer, Ortho Weed B Gon for Southern Lawns, and Ferti-lome Weed Free Zone. Product manufacturers will often recommend a follow-up spray two or three weeks after the first application. Broadleaf weed killers are widely available and can be used on most southern grasses. Injury can occur, however, when using them on St. Augustine grass and centipedegrass as the weather gets warmer in late spring.

Atrazine is very effective on winter broadleaves and also controls annual bluegrass. This herbicide is consistently one of the most effective herbicides on winter broadleaf weeds in the LSU AgCenter lawn weed management trials. Atrazine does not control wild onion, false garlic or blue-eyed grass, which is actually an iris. The herbicide may be safely applied on St. Augustine grass, centipedegrass and zoysia, as well as dormant bermudagrass, during the late winter to early spring. Most garden centers have a good supply of atrazine on their shelves.

Clean your sprayers thoroughly with an ammonia solution if the same sprayer is used for applying insecticides or fungicides on landscape plants. It is best to buy a sprayer specifically dedicated for weed killers, however, to avoid accidental injury to desirable plants. As always, be sure to read and follow product label recommendations before using any pesticide.

## What about weed and feed products?

Weed and feed herbicides can be used at the times recommended for the first fertilizer application of the year. Apply weed and feed in the New Orleans area from mid-to-late March. For north Louisiana, mid-April is the time. Just be aware that applying weed and feed too early (late February to early March) may encourage outbreaks of large patch disease.



**Crabgrass seedlings.**



Fertilizer spreader.

# Fertilizing the Lawn

Lawns vary in the amount of fertilizer required during the growing season. See the table below for information regarding the number and timings of fertilizer applications recommended for lawn species grown in Louisiana. Bermudagrass and St. Augustine grass require the most fertilizer compared to other lawn grasses. Centipedegrass and zoysia only require one to two of fertilizer per year.

| Lawn | Number of fertilizer applications/year | Recommended months |
|---|---|---|
| Bermudagrass | 3 | March/April, June, August (optional September) |
| Centipedegrass | 1 to 1.5 | April and possibly June at half fertilizer rate |
| St. Augustine grass | 2 to 3 | April, June, August |
| Zoysia | 2 | April and July |

## Which fertilizer should I use during the growing season?

A spring application of weed and feed could serve as your first fertilizer application. For future applications during the growing season, consider using 3:1:2 or 4:1:2 ratios of N-P-K as a guide for the analysis of fertilizers to choose for the lawn. For example, a fertilizer with an analysis of 21-7-14 is a fertilizer with a 3:1:2 ratio.

Soil tests would be most helpful in determining exactly what nutrients are needed to make your lawn beautiful. Contact your parish extension office concerning soil sampling your yard today.

*Dr. Ron Strahan*
*Turfgrass and Weed Specialist*

# *Phytophthora* Root and Crown Rot management in Louisiana Landscapes

Root and crown rot caused by *Phytophthora* spp. is the No. 1 ornamental plant disease in home gardens and commercial landscapes. In addition to root and crown rot, *Phytophthora* is also known to cause aerial blight, fruit rot, stem canker and stem rot. *Phytophthora* is a soil-borne, fungus-like microorganism commonly known as water mold. There are several species of *Phytophthora* prevalent in landscapes, and most of them have wide host range.

Symptoms caused by *Phytophthora* may vary with the plant species, but primary symptoms include root and crown rot and wilting and yellowing of foliage followed by death of the affected plants. After infection occurs, roots start to rot and lose their ability to absorb water and nutrients. Reddish-brown lesions appear on the infected roots. Rotted roots turn light to dark brown and easily slough off. Aboveground symptoms become obvious after considerable root rot has occurred. In the beginning, random sections in the canopy wilt and turn yellow. As the disease progresses, the entire plant turns brown and defoliation occurs.

*Phytophthora* is a soil-borne pathogen and produces motile zoospores (infection propagules) that can swim in irrigation water. The pathogen also spreads in splashing water caused by overhead irrigation or rainfall. Soil compaction and poor drainage highly favor disease development.

In landscapes, the disease is favored by poor landscape practices that create conditions conducive for disease development, such as deep planting, overcrowding of plants, excessive mulching, overfertilization, overirrigation, planting in clay-rich soils, soil compaction and poor drainage.



**Figure 1. Reddish-brown lesions on infected roots caused by *Phytophthora* spp.**



**Figure 2. Sloughed-off roots showing naked roots.**



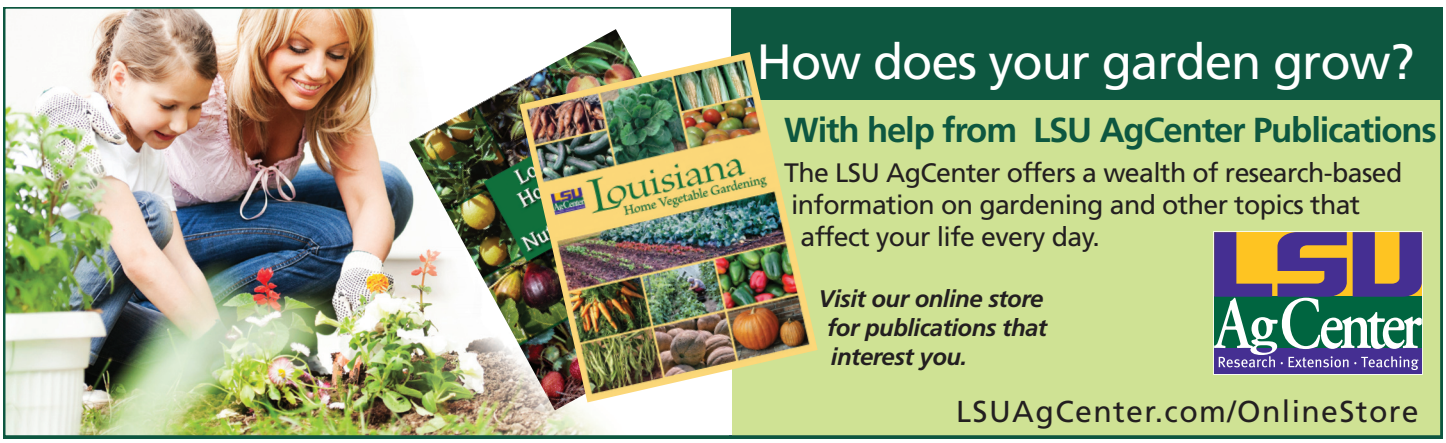
**Figure 3. Azalea infected with *Phytophthora* root rot.**



**Figure 4. Infected strawberry plant exhibiting crown rot caused by *Phytophthora* spp.**

Disease management in the landscape starts with avoiding diseased plants because once *Phytophthora* is introduced, it can persist in soil for a long time. Well-drained soils with good organic matter content are recommended for new plantings. Good cultural practices, including proper planting depth, spacing, fertilization and irrigation may help reduce infection. Roots injured during planting become highly susceptible to *Phytophthora* infection. In landscapes where disease is prevalent, prophylactic treatment with fungicides containing active ingredients such as aluminum tris, fosetyl-Al, mefenoxam or phosphite may help avoid infection. These fungicides do not completely eliminate the disease, and repeated applications may be required to suppress the disease. Follow fungicide labels for rates and frequency of applications.

*Dr. Raj Singh*
*Plant Pathologist, Director of Plant Diagnostics Center*

# Winter Chilling Requirements for Fruit Crops

To bloom in spring and then produce fruit, deciduous fruit trees — such as peaches, plums and nectarines — and some varieties of berry bushes, such as blueberries, require a dormancy period during winter with a certain number of chilling hours.

The dormant buds of many plants require a period of cold weather to grow, flower and develop properly, but requirements vary widely by species. For dormant buds of fruit trees, this is commonly referred to as the chilling requirement. Chilling hours are calculated as a tool for fruit producers to gauge whether their crop has been exposed to cold temperatures for a long enough time period.

Fruit producers should consider the chilling requirements of fruit types they select for planting. In coastal south Louisiana we may only receive 200 to 300 chilling hours, while the central part of the state may get 400 to 500 hours, and the northern part may accumulate 600 to 700 hours in a typical winter

## Winter Chilling Requirements in Louisiana

The cold or chilling requirement of peach and nectarine trees and some other plants is generally listed in the catalogs of most nurseries that sell these plants. For example, the Sentinel peach is listed as having an 850-hour chilling requirement. This means that to successfully grow this variety in a particular area, it should receive an average of at least 850 hours of temperatures at or below 45 degrees Fahrenheit during the fall and winter. Most varieties have the same chilling requirement for leaf and fruit buds. A number of nurseries carry so called "low chill" varieties of various fruit crops that may be good choices for many climatic zones in Louisiana.



## What Happens During Winter Chilling

During the fall and winter, deciduous fruit plants enter a dormant period, which is generally referred to as the plant's "rest period." Plants enter the rest period in the fall as air temperatures begin to drop below 50 degrees Fahrenheit, leaf fall occurs and visible growth ceases. Another less visible change takes place as well. Plants enter the dormant, or rest, period as the level of growth-regulating chemicals in buds changes. In other words, as the growth-regulating inhibitors increase and the growth-regulating promoters decrease, plants begin their dormant period.

As the chilling requirement of a plant is being satisfied by low temperatures, the level of promoters begins increasing while the level of inhibitors decreases. The higher levels of promoters in the buds allow normal resumption of growth and flowering in the spring as the chilling requirement is met.

## Measuring Winter Chilling

The type of low temperatures needed to satisfy the rest requirement of fruit plants, especially tree fruits, has been carefully studied. Temperatures of approximately 35 to 55 degrees Fahrenheit provide most of the chilling effect needed by fruit plants; however, the most efficient temperature at which a plant receives chilling is 45 degrees Fahrenheit.

Temperatures of 32 degrees Fahrenheit and lower contribute little or nothing to the actual chilling being received by the plant. And daily temperatures of 70 degrees Fahrenheit and higher for four or more hours can actually negate chilling that was received by the plant during the previous 24 to 36 hours.

Studies of chilling temperatures have resulted in the development of a number of models that are designed to better measure the accumulation of chilling and determine when rest is satisfied. These models were developed as improvements over the old method of measuring chilling accumulation by monitoring daily temperatures of 45 degrees Fahrenheit and lower beginning October 1 each year.

Among the models tested across the Deep South, the Modified 45 has provided the best prediction of when rest is satisfied by cold temperatures. This model uses a more sophisticated method of determining when rest actually begins in the fall (rather than arbitrarily using October 1 as the starting date) and measures hours at or below 45 degrees Fahrenheit. It does not take into account the negative effect high temperatures may have on chilling accumulation, and it does count chilling hours below 32 degrees Fahrenheit.

## Selecting Adapted Varieties

In apples, for instance, some high-chill varieties — Red Delicious, for example — require up to 1,400 hours of chilling temperatures. They do well only north of the Carolinas. On the other hand, Anna and Tropic Sweet need only 250 to 300 hours and are good choices for growers in south Louisiana. If you plant a Red Delicious in south Louisiana, it may sleep right through our March spring, grudgingly wake up to leaf out in late April or May, refuse to flower and just generally sulk and pout until you dig it up and send it to your Aunt Maude up in Michigan where it belongs.

*David Himelrick*
*Fruit Crops Specialist (retired)*

# Let these LSU AgCenter service labs help you grow!

Start with the soil. Don't guess, soil test. The LSU AgCenter Soil Testing Lab can eliminate the guesswork and reveal exactly how much fertilizer, lime or sulfur is needed for specific plants to be grown in a particular type of soil.



If your plants get sick, accurate and rapid diagnosis of the problem is important for selecting the best management practices at the most effective time. The LSU AgCenter Plant Diagnostic Center can help.





LSU AgCenter Soil Testing & Plant Analysis Lab



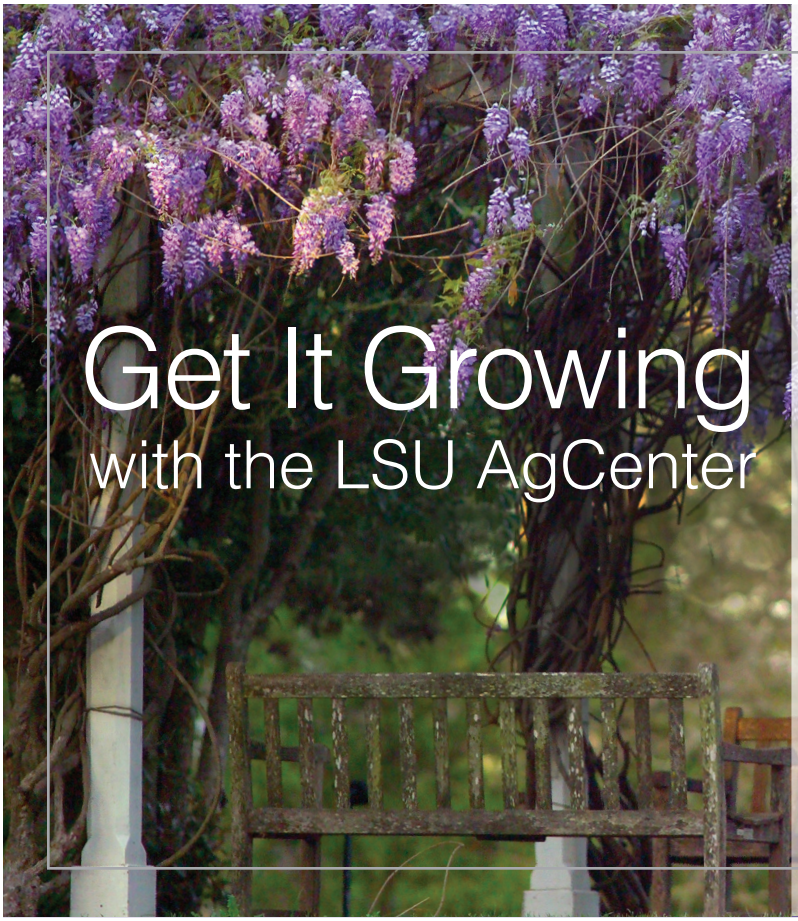
LSU AgCenter Plant Diagnostic Center

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## with the LSU AgCenter

## Polish your green thumb

We offer a wealth of gardening information through our Get It Growing gardening initiative. Look for weekly Get It Growing gardening tips from LSU AgCenter horticulturist Dan Gill. Check your local newspaper, television and radio station, our website or social media.

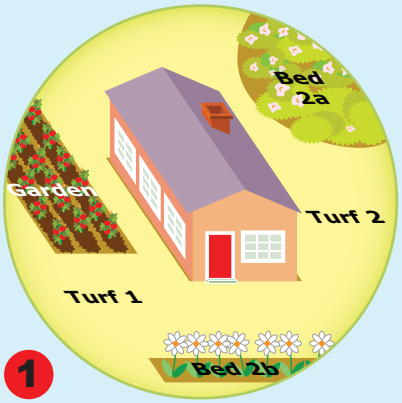
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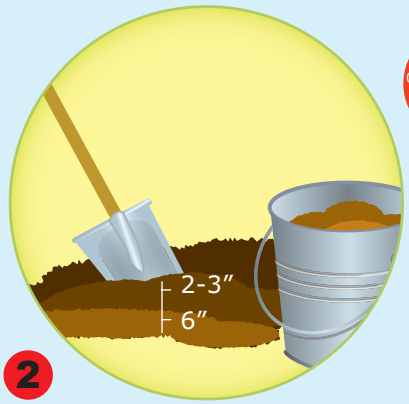
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# How to Take a Soil Sample

The LSU AgCenter Soil Testing and Plant Analysis Laboratory is the only laboratory that incorporates the latest Louisiana-specific soil fertility research in its recommendations system. The lab offers testing for nutritional status of plants, irrigation and pond water. Soil test kits are available at local garden centers or your parish LSU AgCenter extension office. Kits include directions for gathering soil samples, a soil test request form, a sealable plastic bag and a pre-addressed, postage-paid box.




1. Divide area into sections to be tested on basis of slope, type of plants to be grown or other variations.




2. Sample to depth of 2-3 inches for turf and 6 inches for cultivated beds.




3. Take soil from at least 10 places in each section to be tested to obtain a representative sample.




4. Combine soil for section to be tested. Mix soil thoroughly. Soil for each test section should be kept separate.




5. Place one pint of soil in a sealable plastic bag for each section to be tested. Label each bag according to soil test request form. Sample boxes are available from your parish LSU AgCenter extension office or local garden center.




6. Fill out the soil test request form, place it in the box and put the pre-addressed, postage-paid box in the mail.



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