

# Horticulture Hints



Winter  
2017-  
2018

## Landscape Gardening and Ornamentals

### Care of Christmas Trees

Cut Christmas trees are still alive when you purchase them. Having their roots cut away when they are harvested will kill them, of course, but it's our job to keep them on life support and in good shape for as long as possible.

Life support means keeping water moving into the tree. A tree growing in the ground absorbs the water it needs from the soil with its roots. When the roots are cut away, the base of the trunk can still absorb water for the tree if it is put in water. A Christmas tree is like a giant cut flower, and we take care of it much the same way.

First, you must make sure the base of the trunk can absorb water as efficiently as possible. Inside the trunk of the tree are thousands of microscopic tubes that end at the cut and run up into the tree.

To ensure the tubes are as open as possible, it's best to recut the base of the tree trunk when you get it home and immediately put it into a large bucket of warm water (just like a florist handles boxes of cut flowers when they arrive at their shop). If the cut end of the trunk is exposed to the air for a period of time before you put it in water, the tubes can become blocked and not absorb water as efficiently.

Most Christmas trees are harvested well in advance of being sold and have become somewhat dehydrated (trees that are harvested at local tree farms are the exception). To rehydrate your tree, leave it in a big bucket of water outside for a few days after you bring it home. Make sure the tree is in a shady location and replenish the water as necessary (they can drink a lot the first few days). You can even spray it down with water once or twice as long as it is dry when you bring it indoors.



Once inside, place it immediately into a tree stand with a generous water reservoir. Check the tree stand every day without fail, and add more water as necessary. Tree preservatives may be used, but they are not nearly as important as simply keeping the reservoir full.

Reducing the tree's exposure to heat helps extend the life of your Christmas tree. Heat causes the tree to dry out faster. Locate your tree away from heat sources, like fireplaces, hot air vents or space heaters. Turn on the lights you put on the tree only when necessary. And never leave them on when you are not home.



### Cool-Season Bedding Plants

The cool season from October to May is the time when a variety of hardy bedding plants brighten our flowerbeds. These cold-tolerant bedding plants enjoy the chilly temperatures of winter and can reliably tolerate the freezes that occur.

Because they are cold hardy, these plants may be planted during mild periods all winter long. It is best to get them planted by late February or early March at the latest. That will give you plenty of time to enjoy them before they begin to fade in the heat of late April and May.

Excellent cool-season bedding plants include alyssum, annual phlox, bachelor's button, calendula, diascia, delphinium, dianthus, dusty millers, forget-me-nots, foxglove, geraniums, hollyhock, larkspur, nasturtium, nemesia, nicotiana, ornamental cabbage and kale, pansies, petunias, poppies, snapdragons, statice, stock, sweet peas, toadflax and violas.



## Louisiana Super Plants

Some of the very best cool-season bedding plants are Louisiana Super Plants selections.

The Louisiana Super Plants program is an educational and marketing campaign of the LSU AgCenter that highlights tough and beautiful plants that perform well in Louisiana landscapes. Louisiana Super Plants selections have a proven track record. These plants have gone through years of university evaluations and observations or have a long history of thriving in Louisiana landscapes. Louisiana Super Plants are "university tested and industry approved."

Look for Louisiana Super Plants cool-season bedding plant selections at your local nurseries. These bedding plants are chosen by the LSU AgCenter for their outstanding performance around the state:

- **Amazon dianthus.** Available in the Neon Cherry, Neon Purple and Rose Magic varieties.
- **Camelot foxgloves.** Lavender, white, cream and rose colors. Are tall and stately in the garden.
- **Sorbet violas.** Available in many colors, they are among the very best cool-season bedding plants.
- **Redbor kale.** These frilly purple leaves are beautiful and edible.
- **Swan columbines.** Available in many beautiful colors, they produce one of the most graceful flowers.
- **Diamonds Blue delphinium.** Exquisite blue flowers.
- **Mesa gaillardia.** Will bloom from early spring until late summer.
- **Homestead Purple verbena.** The most reliable perennial verbena for Louisiana.
- **Petunia Supertunia Vista Bubblegum.** An outstanding, vigorously spreading petunia with rich, pink flowers in amazing profusion.

## Landscaping Small Spaces

If you are thinking about installing a new landscape or adding hardy trees, shrubs, ground cover or vines to an existing landscape, the cool season that runs from October to March is the best time for planting. Now would be an excellent time to do some landscape planting.

There are a variety of smaller spaces in landscapes, such as entranceways, courtyards and patios, to name a few. An important part of landscaping smaller spaces (and larger ones as well, for that matter) is the selection of plants. Once decisions on walkways, patios, decks, fences, arbors and other hardscape have been made, the careful selection of plants completes the process.

The first stage of planting should establish the bones of the garden. Just as the skeleton of an animal determines its shape and function, these plants play an important role in establishing the foundation of the garden. First, select and place these plants according to a carefully thought-out and well-considered plan. Plants used in this stage include small shade and flowering trees, screens and hedges and prominent specimen plants. Pay careful attention to their mature size as they are the largest plants that will go into the design. In small space situations these plants create major problems if they grow too large.

Planting at the second level has the most functional role and should also be placed with careful planning. These plants must fill in the spaces, creating bulk in the planted areas. They will form the background for the smaller decorative plants but should also be visually pleasing. Choosing flowering shrubs, for example, helps provide seasonal color in addition to bedding plants. Vines, in all of the roles they play in the landscape, fall in this category.

These plants give the garden its stability and should generally be evergreen, although the use of a few deciduous shrubs, such as hydrangeas and flowering quince, can add interest and indicate seasonal changes. Smaller plants in this category should generally be used in masses or groups of several plants to keep the whole arrangement from getting too busy.

When it comes to the last category of plants, the decorative level, you may relax your adherence to a carefully thought-out plan. These plants tend to be annuals and perennials grown for their colorful flowers



or attractive foliage. You can get away with this if the rest of the garden and landscape, including the structures, walkways, patio, fences, trees and shrubs, were carefully thought out and placed. If a mistake is made at the decorative level, it is temporary or easily corrected. Putting a major tree in the wrong spot, however, is not so easily dealt with.

When choosing plant material for a small garden, size is of the utmost importance — not just how big it is when you buy it, but how big it will ultimately grow and how fast. Over-planting and overgrown plants can ruin the most carefully planned garden.

What we need to keep in mind is scale. Scale deals with the concept of using plants and features that are appropriately sized to fit comfortably into the garden and with each other. You should tend to favor smaller growing species, dwarf or compact cultivars and slower growing plant materials. Send me an email for a list of plants appropriate for small space landscapes.

Whether you are creating a new landscape or improving an existing one, now is a great time to plant. Think things through and make well-considered decisions. A well-planned small garden is a delight both for its beauty and in how well it provides for the needs of the family that uses it.



## Dealing with Cold-Damaged Landscapes

Winter freezes often damage tropical plants in our landscapes. Tropical container plants left outside during freezes are especially vulnerable to the cold. Ideally, they should be moved indoors or into a garage where they will not be exposed to freezing temperatures. If you took a chance and left container tropicals outside and they sustained cold damage, learn from this. Make a point of bringing outside container tropicals indoors in the future if you want to prevent damage.

For tropical plants growing in the ground, don't be overly distressed if you carefully covered and protected plants and they still show freeze damage despite your efforts. When we cover tropical plants, we do not expect them to come through the freezes in perfect condition. Damage almost always occurs to plants that are covered when temperatures reach the low 20s or lower. For plants growing in the ground, cold protection is done to preserve the life of the tropical plant — not to bring it through the winter without damage.

To maximize protection from covers, make sure the cover extends all the way to the ground and is sealed. Multiple layers of cover provide more protection than a single layer. Providing heat under the cover is best when temperatures will reach the low 20s or teens. This is often done by generously wrapping and draping a plant with small, incandescent outdoor Christmas lights under the cover.

The question I get most often from gardeners after major freezes is usually, "Is my plant still alive and will it recover?" This is a hard-to-answer question for individual plants. There are way too many variables. You will have to evaluate this for yourself. I would say generally be optimistic for plants growing in the ground, particularly if you were able to provide some protection.

The second concern is, "What should I do to help my plants recover?" Unfortunately, the damage is done. Nothing you do now will take that away. If the plants survived, they will recover if you simply leave them alone. If they didn't make it, nothing you do will bring them back. Do not fertilize, water excessively or do anything like that now.

It's a good idea to delay pruning after a freeze has damaged plants. Generally, don't prune anything for a week after a freeze event. It commonly takes several days for all of the damage to be evident.

## Pruning Herbaceous Plants

Damaged growth on herbaceous or non-woody plants, such as cannas, elephant ears, birds-of-paradise, begonias, impatiens, philodendron and gingers, may be pruned away back to living tissue. This pruning is optional and is done more to neat things up than to benefit the plants. However, if the damaged tissue is oozy, mushy, slimy and foul smelling, it should be removed.

## Pruning Woody Plants

Dead leaves on woody tropical plants, such as hibiscus, tibouchina, angel trumpet, croton, ixora, schefflera, copper plant and rubber tree, can be picked off to make things look neater. If you can clearly determine what branches are dead on a woody plant, you can prune them back.

Try scratching the bark with your thumbnail. If the tissue underneath is green, it's still alive. If the tissue is tan or brown, the branch is dead. Start at the top and work your way down to see how far back the plant was killed. Generally, it's a good idea to delay hard pruning of woody plants until new growth begins in the spring and you can more accurately determine which parts are alive and what is dead.

As additional winter freezes occur, continue to protect what you can when needed. Don't be too quick to dig up and remove tropical plants that have been severely damaged and appear to be dead. They may eventually resprout from the base of the plant or the roots in April or May.



## Christmas Cactus

Christmas cactuses produce amazingly beautiful flowers on plants with gracefully arching stems. They are popular plants for decorating during the holidays. When you get them home, place your Christmas cactuses near a bright, sunny window and keep the soil evenly moist. It is quite common for these plants to drop flower buds when you get them home, but there is little that you can do. Still, many blooms and buds will hold on, and their great beauty in shades of magenta, red, pink, orange, gold or white make their purchase worth it.

Holiday cactuses will reward you with blooms every year for many years if grown correctly. After all the flowers have dropped off, allow the soil to become fairly dry between waterings and keep the plant in a bright window. An east or west window will provide plenty of light. They also will thrive on a porch or patio in a semi-shaded position during the summer.

They are triggered to bloom by long nights and chilly nighttime temperatures in the 50s. The easiest way to get a plant to bloom again is to place it outdoors in October (if you have been growing it inside). Leave it outside and allow the progressively longer and cooler nights to initiate buds to form, but do not leave the plant out on a night when a freeze is predicted. Once you see little flower buds at the tip of the branches, move the plant into a bright window inside and keep the soil evenly moist.

## Ground Covers for Louisiana Landscapes

The term ground cover is applied to low growing plants other than turfgrass used to cover areas of the landscape. Perennial evergreen plants having a sprawling or spreading habit are most often used. The plants used for ground covers are generally less than 2 feet in height and in addition to the beauty they provide, they are effective in erosion control. Because they don't have to be mowed, ground covers reduce landscape maintenance. They are also useful in confined areas and on steep slopes where mowing would be difficult. They work well under low-branched trees and where the roots of large trees protrude. They are also useful in areas under trees that have become too shady for grass to grow.

When making your selection, you must carefully consider the characteristics you would like the ground cover to have, including its height, texture and color. Also consider the growing conditions where it will be planted. Is it sunny or shady? You should also look at the size of the area to be planted. Only the most reliable, fast spreading and reasonably priced ground covers should be considered for large areas.

Ground covers can reduce maintenance, beautify problem areas and create a whole new dimension in your landscape. Here are a few plants that are good choices for ground covers.

### Ground Covers for Shade to Part Shade

- Liriope (*Liriope muscari*). Many different cultivars.
- Creeping lily turf (*Liriope spicata*). Spreads better than *L. muscari*.
- Monkey grass (*Ophiopogon japonicus*).
- Asian jasmine (*Trachelospermum asiaticum*).
- Cast iron plant (*Aspidistra elatior*). Best used in total shade.
- English ivy (*Hedera helix*).
- Ligularia (*Farfugium japonicum*).
- Algerian ivy (*Hedera canariensis*).
- Periwinkle (*Vinca major*). An excellent variegated form is available.
- Ajuga (*Ajuga reptans*). Use in small areas as it is prone to crown rot.
- Strawberry begonia (*Saxifraga stolonifera*). Best used in shady, damp areas.
- Many ferns, such as holly fern (*Cyrtomium falcatum*), wood fern (*Thelypteris kunthii*), sword fern (*Nephrolepis cordifolia*) and autumn fern (*Dryopteris erythrosora*).



### Ground Covers for Part Sun to Full Sun

- Lily of the Nile (*Agapanthus*).
- Sedum (*Sedum acre*, *S. album*).
- Dwarf bamboo (*Bambusa sasa pygmaea*).
- Low-growing junipers (*Juniperus chinensis procumbens* and *J. horizontalis* cultivars especially).
- Dwarf gardenia (*Gardenia jasminoides*).
- Dwarf lantanas (*Lantana camara*).
- Daylily (*Hemerocallis*).
- Wedelia (*Wedelia trilobata*).
- Perennial verbenas (*Verbena canadensis*).
- Yarrow (*Achillea millefolium*).



# Checklist for December, January, February



1. Most spring-flowering bulbs can be planted through early December. Tulips and hyacinths must be refrigerated for six to eight weeks before planting in late December or early January.
2. Remove old flowers from your cool-season bedding plants to extend blooming and improve flower performance.
3. Plant gladiolus in late February in south Louisiana. Prolong the blooming season by planting at two- to three-week intervals for a couple of months.
4. Mulch shrubs and flowerbeds to get plants off to a good spring start and minimize weed problems.
5. Watch azaleas in February for lace bugs. They cause the foliage to have numerous small white spots, and they feed underneath lower foliage. Control them with horticultural oil sprays or Orthene.
6. A late-winter planting of petunias will provide a good flower show for early spring. Consider the new Wave series.
7. Winter is a great time for planting trees. Some excellent native species for Louisiana include nuttall oak, Southern red oak, willow oak, red maple, Southern sugar maple, Southern magnolia, bald cypress and mayhaw. Louisiana Super Plants selections include evergreen sweetbay magnolia, willow oak, vitex and Southern sugar maple.
8. February is the ideal time to fertilize trees.
9. January and February are good months to prune landscape trees and any deciduous and evergreen plants that don't flower in the spring.
10. Clean and sharpen tools before you put them away. Wipe the metal blades with an oily cloth that coats them with a thin layer of protective oil to help prevent corrosion. Coat wooden handles with protectants such as a sealer, tung oil or varnish.
11. February is a good time to plant container or bare-root roses. Bare-root rose bushes should be planted by the end of February. Early planting allows rose bushes to become established in their new locations before they begin to bloom. This increases the number and quality of flowers, and the bush is more prepared to deal with summer heat when it arrives in May. Plant roses in sunny, well-prepared beds that have excellent drainage
12. Look for Louisiana Super Plants at your local nurseries. Louisiana Super Plants are selected for their outstanding performance around the state and are "university tested and industry approved." Cool-season bedding plant Super Plants that can be planted now include Homestead Purple verbena, Swan columbines, Redbor kale, Camelot foxgloves, Amazon dianthus, Sorbet violas and Mesa gaillardia. Hardy shrub Louisiana Super Plants selections that can be planted now include Belinda's Dream roses, Drift roses, Shishi Gashira camellias, Conversation Piece azaleas and Leslie Ann sasanquas.
13. Prune everblooming roses in late January or early February. Landscape roses, like the popular Knock Out roses, should be cut back by about one-half their height (do not cut back lower than 2 feet from the ground). Fertilize rose bushes in mid- to late March.
14. Trim back dormant ornamental grasses in late February. It is important to remove the brown leaves before the new growth emerges and mixes with the dead growth. Electric hedge trimmers are a good tool to use for this job.



*Dan Gill*  
*Consumer Horticulture Specialist*

# Vegetable Gardening

Most of the year, I love being in the garden. However, January and February can be brutally cold. More than once I have found myself, graduate students and volunteers harvesting frozen lettuce and planting small, frozen onion seedlings. We literally popped them out of the seedling tray as you would ice cubes! They survived and — even better — they grew beautifully! Why did we not wait until better weather? We needed the data, or we did not want a test to fail.

Have your gloves ready because gardening is always in season in Louisiana. While, yes, “Baby it’s cold outside,” the garden still needs attention.

## Monthly Garden Tips

### December

- Build rows in gardens and turn over soil in raised beds now while the weather is drier. The early spring season can be quite wet.
- Plant onion sets. Choose sets that are thin, the size of a pencil or thinner. Thicker plants tend to bolt in cold weather and set seed rather than form a bulb. In other cases I’m not always in agreement with this statement, but for onion sets, thin is best.
- Scout for insects. Aphids, slugs, snails and worms are the biggest winter culprits in vegetable crops. Use insecticides as you see the actual insect or damage from an insect, not as a preventative. Insecticides such as horticulture oil, insecticidal soap and Bifenthrin products (Ortho Bug –B-Gon Max) work great for aphid control. Insecticides that kill worms and loopers include Sevin, Bt (Dipel) and Spinosad. Snails and slugs are best controlled with baits applied in the early evening. That is when these pests feed, and the smell attracts them toward the bait. Our high humidity and frequent rains can diminish smells, so apply right before feeding. As always, use appropriate spacing and feed and water plants to keep them healthy. Healthier plants can withstand more insect pressure than weakened plants.
- Clean up debris after harvest. Cabbage and cauliflower are harvested only once. Remove old foliage as soon as possible. Plant debris left in the garden after harvest serves as a host for insect and disease pests. If other plants are no longer being harvested, take them out and get ready for spring.
- Order spring vegetable seed now if you want first pick of the great varieties. Wait too long, and it will be too late to start your transplants.



### January

- Onions can be planted from mid-December to early January. In early January, continue to plant onion sets. Bulbing onion varieties that perform well include, but are not limited to, Texas Grano, Mr. Buck, Texas 1015Y, Pinot Rouge, Red Burgundy and Miss Megan.
- Mid-January: Transplant broccoli, cabbage, cauliflower and lettuce.
- Mid-January: Plant Irish potatoes into the garden. Cut the potatoes a few days before planting. Pieces only need one eye but do better when at least as large as a half-dollar to prevent rotting in wet weather conditions.
- Vegetable growers in south Louisiana should start their tomato, eggplant and pepper transplants in mid-January. North Louisiana vegetable growers should wait until the end of January or the beginning of February. It takes between 8 and 10 weeks to germinate and grow into a decent-sized tomato, pepper and eggplant seedling for the garden. Keep seedlings in a warm and BRIGHT area. One week prior to transplanting, move the seedlings outside to harden off.



### February

- Continue to transplant broccoli, cabbage, cauliflower and lettuce transplants into the garden. Successive planting (a portion of a row or a new row) every two weeks ensures a steady harvest.
- Direct-seed beets, turnips, mustard, parsley, radishes, lettuce, snap beans and Irish potatoes.
- Leave space for spring crops that will go into the garden in March and April!



*Dr. Kathryn Fontenot  
Vegetable Crop Specialist*



# LouEASyana GARDENING



## Create a Festive Wreath with Local Plants

Collecting your own materials for a wreath during the holidays can be a fun and rewarding experience. Wreaths can be as simple or elaborate as you like. Look around your yard to find inspiration and collect a variety of cuttings. Try to find plants with different shades of green leaves, and incorporate several different types of plant material to make your wreath interesting. Aim for a 6-inch cutting. If a branch is too long or heavy it may fall out of the wreath. You'll need a pair of sharp pruners to make a clean cut.

Plant material choices that are easily found in Louisiana include: holly, magnolia, juniper, camellia, smilax, nandina, boxwood, eucalyptus or pine. Magnolia leaves are an excellent choice because their leaves are green on the top and soft brown on the bottom. Use small branches with leaves attached to build the foundation of your wreath.

Also look for shrubs with berries to add accents of color. Hollies, beautyberries and pyracantha bushes are all producing berries this time of year. Don't forget to include herbs, such as rosemary, which will add a nice fragrance. Consider using a small poinsettia bract for a pop of color. After cutting the twigs, immediately submerge the base of the cutting in a bucket with a few inches of water. This will ensure your trimmings won't dry out before you assemble the wreath.

Add texture by using pine cones, acorns or burlap. Dormant vines like wisteria or grape can be a creative addition. The vines won't have leaves, but their branches can be contorted or twisted and will make an interesting addition.

Tuck your cuttings into the wreath base and fasten with floral wire if needed. Keep the wreath on an outside door. Inside air is too dry and hot and will cause the leaves to drop prematurely.

*Mary Sexton, Extension Associate*

Let these  
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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.



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# Winter Turfgrass Management

## Bleak Time for Turfgrasses Begins in December

December begins a bleak time for warm-season turfgrasses. Most lawns should be dormant or at least close to this stage by Christmas. Because lawns are not actively growing, fertilizer applications are not needed during the winter. Actually, you should have stopped nitrogen fertilization on home lawns by late summer (late August for St. Augustinegrass and centipedegrass).

Nitrogen fertilizer on dormant to semi-dormant St. Augustinegrass, centipedegrass and zoysia lawns can lead to increased brown patch and winter kill. Also, nitrogen applications during this time have a greater potential for leaching or movement into non-target areas, such as streams and ponds.

## Soil Sampling and Liming

Winter is an excellent time to collect soil samples and submit them for analysis. Samples should be a composite of soil collected at various places around the lawn from 3 to 4 inches deep. Mix the collection well, then reduce the sample to about a pint of soil and take it to the LSU AgCenter Extension Service office in your parish or to a participating garden center. Make sure to specify the type of grass you are growing on the soil test form.

Soil samples submitted to the LSU AgCenter result in a wealth of information concerning the overall fertility of your soil. If results

of the test indicate the soil pH is too acidic, lime will be prescribed. Sulfur may be prescribed for soils that are too alkaline. Winter is the best time to apply lime or sulfur so that it can be activated by the growing season next spring and summer. The correct soil pH is extremely important and affects fertilizer performance and whether certain nutrients are available to your lawn's roots.

## Turf Establishment

Postpone any permanent warm-season turfgrass seeding until next spring. Over the winter soil and air temperatures will be too cold for germination and growth.

Sod, such as St. Augustinegrass and centipedegrass, can be laid during winter and established successfully during the spring. Remember to maintain good moisture to prevent the sod from dying. However, establishment of sod is easiest when sodding is delayed until the middle of spring, well after spring green-up.

## Brown Patch Disease

Brown patch disease can come and go throughout the winter if the weather is mild. Treatment with fungicides containing myclobutanil, propiconazole, azoxystrobin and pyraclostrobin and triticonazole will reduce the spread of brown patch. Damage from brown patch will slow spring green-up, and affected areas will remain unsightly until warmer spring weather conditions help with turfgrass recovery.



*Lawn burweed*

## Winter Weed Management

Broadleaf weeds — such as clover, lawn burweed (sticker weed), annual bluegrass infesting St. Augustinegrass, centipedegrass and zoysiagrass, as well as dormant bermudagrass — can be managed with applications of atrazine herbicide applied in February and March. These are good months to spray winter weeds because they are still actively growing and not producing seed. Also, herbicides containing three-way mixtures of 2,4-D plus dicamba plus mecoprop (trimec) can be used for winter broadleaf control with less turf injury potential in all Southern turfgrasses this time of the year. Weed-and-feed products can be substituted as your first application of fertilizer during the early spring.

## When to Fertilize Lawns

Lawns may show signs of green-up in southern Louisiana in late February. Do not push turfgrass growth with fertilizer at that time. Fertilizer applied too early will feed winter weeds and will result in lush turfgrass growth that is more susceptible to injury from late frosts and increased levels of brown patch disease. Lawns may be fertilized in the New Orleans area by late March, but delay fertilizing areas north of Baton Rouge until early April. Consider fertilizing lawns in north Louisiana around mid-April.



*Brown patch*

*Dr. Ron Strahan  
Turfgrass and Weed Specialist*



## Winter Tree Care

As we transition from season to season, our beloved trees and shrubs are going to sleep for the winter, or so it seems. It appears that no growth is occurring this time of year, and that is correct if you are only looking at the aboveground portion of trees and shrubs. Because we don't see any new foliage growth, it would seem that now is an unfavorable time to plant. In fact, now is the most appropriate time to plant trees and shrubs.

It is best for trees and shrubs to be planted in the late fall to winter (November-January). The reason why these plants should be put in the ground this time of year is because soil temperatures stay relatively constant and much higher when compared to the air temperatures above. Though the plant may seem to be dormant for the winter, this is only true for the part of the plant that is above the soil line. The roots are growing during the winter but very slowly. During this time of year when just the roots are growing, they provide the aboveground portion of the tree with little to no nutrients or water when compared to the warmer parts of the year.

Planting in fall gives trees and shrubs an additional four to five months of root growth before the roots have to perform any major tasks. The roots have time to spread out in the soil, helping ensure success in the garden. This contributes to more present root growth, which allows the plant to take up water during our dreadful summer heat. On the contrary, if the same plant were planted in spring, it would have a much shorter time to put out roots before the scorching hot summer began.

Planting trees and shrubs in late fall or winter will provide a much healthier root system for the plant, thus creating a more beautiful garden. Though the trees and shrubs will have plenty of new root growth spreading into the surrounding area, it is still necessary to monitor water for the first one to two years after planting. This time period is called the establishment period. One to two years after planting, the trees and shrubs should need little to no additional water than what rainfall provides. This is great news for gardeners, as we will not have to be out in the yard as much hand-watering thirsty plants. Get your trees and shrubs planted now in the fall and enjoy the ease of gardening in the summer.

*Lee Rouse*  
**Horticulture Extension Agent**

# Arbor Day

at Burden

January 20 . 9 a.m.-1 p.m.  
LSU AgCenter Botanic Gardens

- Family Tree Planting
- Scavenger Hunt
- StoryTime & Activities
- Children's Tree Climbing
- Visit with Smokey Bear
- Bonfire
- Hayrides
- And More ...

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LSU AgCenter Botanic Gardens at Burden . Burden Museum & Gardens  
4560 Essen Lane (at I-10) . Baton Rouge . 763-3990 . DiscoverBurden.com

# Lethal Yellowing of Palms Detected in Louisiana

Lethal yellowing is a deadly disease of palms, and until recently it had only been found in Florida. However, this disease was recently detected in silver date palms and Chinese windmill palms in Baton Rouge.

Lethal yellowing is known to rapidly cause palm decline and then kill mature palms. The disease is caused by a phytoplasma that is an unculturable bacterium with no cell wall that colonizes phloem tissue. The pathogen is spread and transmitted by a piercing, sap-sucking planthopper.

Lethal yellowing causes a decline in 37 palm species and in Louisiana would include Canary Island date palm, Chinese fan palm, Chinese windmill palm, date palm, queen palm and silver date palm.

Symptoms of lethal yellowing in tall palms start with discoloration of older leaves. Infected leaves turn reddish brown to dark brown and eventually die. Infected palms exhibit a large proportion of discolored leaves in the lower region of the canopy (Figure 1). Lethal yellowing can also cause necrosis of flowers and premature fruit drop. As the disease develops, the spear leaf (apical meristem) (Figure 2) dies after approximately one-third of the lower leaves have discolored. Diseased palms rapidly die within three to five months after the first appearance of symptoms (Figure 3).

Management of lethal yellowing is not possible in infected palms after the spear leaf dies. A symptomatic palm with a dead spear leaf and discolored foliage constituting least one-quarter of its canopy should be removed immediately. The palm may serve as a source of the pathogen that the planthopper can transmit to healthy, susceptible palms.

Healthy, susceptible palms may be protected in a landscape where lethal yellowing is prevalent with the antibiotic oxytetracycline hydrochloride (Arbor-OTC from Arborjet is registered for use on palms in Louisiana). Lethal yellowing can be suppressed with this antibiotic if the infected palms' spear leaves are still alive. Because the antibiotic does not eradicate the phytoplasma, trunk injections will need to be administered every three to four months.

Accurate identification of lethal yellowing in the field is required for effective disease management. Other diseases and disorders of palms may produce similar symptoms, which can make it hard to identify the disease based solely on symptoms. Molecular detection and identification of the pathogen from symptomatic tissue are required for positive confirmation. Samples from suspected palms can be submitted to the LSU AgCenter Plant Diagnostic Center for positive identification, but before you collect any samples, please contact us by phone at 225-747-2367 or email at [rsingh@agcenter.lsu.edu](mailto:rsingh@agcenter.lsu.edu).

***Dr. Raj Singh***  
***Director of Plant Diagnostic Center***



Figure 1. Silver palm showing brown dead foliage in the lower canopy and chlorosis in the upper canopy (Photo Credit: Raj Singh, LSU AgCenter).



Figure 2. Diseased palm showing dead spear leaf (Photo Credit: Raj Singh, LSU AgCenter).



Figure 3. Dead or Dying? Chinese windmill palm (left and right) infected with lethal yellowing disease (Photo Credit: Mary Helen Ferguson, LSU AgCenter).



## Blackberries for Home Gardens

Blackberries are adapted to most regions of Louisiana. They are a good addition to the home fruit garden and can be grown with fewer inputs than most other fruit crops. Furthermore, their fruit is flavorful and nutritious. Varieties developed by the University of Arkansas fruit breeding program are recommended for use here. These varieties have an upright growth habit and do not require the use of an elaborate trellis system. They are grown in a hedgerow-type system with the first crop harvested the year after the planting is established. Many soil types are suitable for blackberry production. However, the preferred soil pH ranges from 5.5 to 6.5, and good soil drainage is essential. Sites with water standing for long periods of time should be avoided.

### Site Preparation

If possible, begin preparing the soil a year prior to the projected planting date. Perennial weeds and established sod should be eliminated before planting. The soil should be cultivated deeply, and several passes with a tiller may be needed to kill weeds and thoroughly incorporate plant residues. Blackberries will respond to increased levels of organic matter in the soil, especially under non-irrigated conditions. If the soil requires additional drainage, the rows can be established as raised beds. The beds should be 6 to 10 inches high and 2 to 3 feet wide. The row middles will be maintained as sod strips.

### Planting

Blackberries are established from root cuttings or plants. Rooted plants are often used for thornless varieties because of the reduced level of sprouting from root cuttings that occurs for thornless varieties compared to thorny varieties. Plant blackberry roots or rooted plants at any time in the spring before the soil warms. Later planting can reduce plant growth. Root cuttings should be pencil size in diameter or slightly larger and 4 to 6 inches long. Plants grown from good root cuttings are usually strong and can come into

production as early as 1-year-old plants. Space root cuttings 2 feet apart in the row in a horizontal position and cover with soil to a depth of 2 to 3 inches. Place plants 2 to 3 feet apart in the row at the same depth they grew in the nursery or container. The objective is to produce a continuous hedgerow for the full row length desired. Do not let the cuttings dry out. If the plants or cuttings are slightly dry when received, soak the roots in water for several hours before planting them or heel them in. If plants or roots are extremely dry, reject the shipment.

### Care After Planting

Apply fertilizer following recommendations based on soil tests. If soil tests are not available, a general recommendation for the first year is to apply 5 pounds of a complete fertilizer, such as 10-20-10, per 100 feet of row after the newly set plants have started growing or after root cuttings begin to emerge. The second year, and thereafter, fertilizer should be applied alongside the rows in February with applications based on soil test recommendations. Side-dress with ammonium nitrate after harvest at 5 pounds per 100 feet of row. Increase or decrease fertilizer in response to cane growth. Cultivation should begin as soon as plants are set in the spring. Cultivate often enough to keep the ground free from weeds and grass until late summer. Generally, little pruning is required the year of planting. However, lateral growth may need to be trimmed to keep the plants within the rows. Blackberry plants send up new canes from crowns or from buds formed on the roots. These canes grow through one season, produce a crop of fruit the second year and then die soon after harvest. Remove old canes immediately after harvest so that the new shoots develop sturdy canes. Top the ends of new canes during the summer at a height of 36 to 48 inches. This limits cane height and forces side laterals, which bear the fruiting clusters the following year. During the summer, it is very important to remove suckers growing up outside of the desired row. Summer-prune the remaining laterals or side branches to a manageable length. Winter-prune the laterals to 14 to 16 inches for convenient harvesting and larger berries (Figure 1). Winter removal of excessively wide summer growth removes the most fruitful canes. In late winter, remove the remaining dead and weak wood. Leave healthy, vigorous canes spaced about six canes per foot in a row about 12 to 18 inches wide. Irrigation of blackberries is required during the first season and is needed during dry periods in most years. Irrigate equivalent to 1 inch of rainfall per week. If drip irrigation is used, apply 2 to 3 gallons of water per day to mature plants during dry periods. Increase or decrease the amount of water applied based on plant response.

Blackberries begin bearing one year after they are planted. First-year growth of erect blackberries is low and non-erect. This often causes concern among beginning blackberry growers, but by the second year, all growth is erect. A planting may produce for more than 15 years, but production is usually best during years three through eight and often begins to decrease after that.

Erect-type blackberries are pruned twice each year. Summer topping is used to limit the height of the plants to 3 to 4 feet. Cut and remove approximately 6 inches off the tip of the primocane when it reaches about 3 feet high. This will induce lateral branches to form below the cut. Dormant pruning takes place in the winter. At this time, cut out spent floricanes at ground level. Shorten lateral branches to 12-18 inches. A simple two-wire T-bar trellis will help to keep rows neat.

Blackberries are highly perishable. They should be harvested as soon as ripe, handled very carefully and either placed in cold storage or used without delay. It may be necessary to harvest daily to prevent loss of fruit and the spread of molds and other diseases.

## Pest Control

Spraying for weed control may be necessary. Blackberries tend to have only two common diseases: double blossom rosette and orange rust. There are no effective homeowner sprays. The disease cycle of double blossom rosette can be broken by mowing the plants to the ground in the winter. This will result in a loss of production for one year. Orange rust can be controlled by digging and removing diseased plants.

## Blackberry Types and Growth Habit

Blackberries are unusual in that they have a perennial root system and biennial tops (canes). Individual canes live for two years and then naturally die. Historically, in the first year, they produce only vegetative growth (primocanes). In the second year, these same canes, now called floricanes, produce fruit. The floricanes will die after fruiting. The new primocane-fruiting blackberry varieties also bear fruit on current-season canes. This new type of blackberry could greatly change blackberry production. The first commercial primocane-fruiting blackberry cultivars were released by the University of Arkansas in 2004. The second important consideration is whether the variety has either thorned or thornless canes. Those with no thorns have an obvious appeal.

## Varieties

Varieties recommended for home fruit production in Louisiana are summarized below. All these varieties were developed by the University of Arkansas fruit breeding program.

### Chickasaw

Thorny. High yielding with large fruit. Disease-resistant to anthracnose and orange rust. Mid-season harvest with medium storage potential. Requires approximately 500 chill hours.

### Choctaw

Thorny. High yielding with medium fruit size. Disease-resistant to anthracnose and orange rust. Early ripening. Low storage potential.

### Shawnee

Thorny. High yielding with medium to large fruit size. Disease-resistant to anthracnose and orange rust. Early to mid harvest season with low storage potential.

### Apache

Thornless. High yield with large fruit. Disease-resistant to anthracnose and double blossom. Late harvest season with high storage potential. Requires approximately 800-900 chill hours.

### Arapaho

Thornless. Moderate yield with medium-sized fruit. Disease-resistant to anthracnose and double blossom. Early to mid harvest season. High storage potential.

### Kiowa

Thorny, erect with very large fruit. Ripens over a long period. The longest fruiting of the Arkansas varieties. Storage and handling potential very good. Among the best of the thorny varieties. Requires approximately 200-300 chill hours.

### Navaho

Thornless. Moderate yield with small to medium-sized fruit. An excellent variety. Consistently rated the highest of the Arkansas varieties. Disease-resistant to anthracnose and double blossom; susceptible to orange rust. Late harvest season with very high storage potential. Requires approximately 800-900 chill hours.

### Quachita

Thornless, with very erect canes. Early to mid-season ripening. Resistant to double blossom/rosette. High storage potential. Requires approximately 400-500 chill hours.

### Prime-Jim

Primocane-fruiting. Thorny, erect. Floricane yields comparable to floricane-fruiting thorny and thornless varieties. Primocane yields vary greatly by location; best in North Arkansas. Floricanes susceptible to double blossom/rosette, but primocanes avoid this disease because the disease does not appear until the second season on the canes. No orange rust observed and only slight anthracnose observed. Low storage potential. Recommended only for home garden use and very limited commercial trial. Requires approximately 300-400 chill hours.

### Prime-Jan

Primocane-fruiting. Thorny, erect. Similar to Prime-Jim. Requires approximately 300-400 chill hours.

### Osage

Thornless, floricane-fruiting. Medium-sized fruit. Good flavor. Good postharvest storage.

### Prime-Ark Freedom

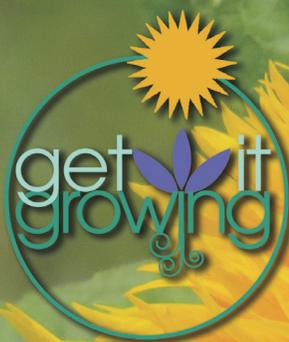
Primocane-fruiting. Thornless, erect. Medium-sized fruit.

### Prime-Ark Traveler

Primocane-fruiting. Thornless, erect. Large fruit.

*Dr. David Himmelrick  
Fruit Crops Specialist*





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# Horticulture Hints



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**Parish agents, please adapt these suggestions to your area before disseminating.**

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