Proper Holiday Tree Care Yields Best Results

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 cut the base of the tree trunk again when you get it home and immediately put it into a large bucket of warm water (just like florists handle boxes of cut flowers on arrival at their shops). 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. (Trees 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 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 the lights on the tree on when you are not home.

Look for Louisiana Super Plants

Look for Louisiana Super Plants selections at your local nurseries. Louisiana Super Plants are selected by the LSU AgCenter for their outstanding performance around the state and are “university tested and industry approved.”

Excellent cool-season bedding plant selections that can be planted in December, January and February include dianthus Amazon Neon Purple, Amazon Neon Cherry and Amazon Rose Magic; Camelot foxgloves, which comes in lavender, white, cream and rose; Sorbet violas in many colors; Redbor kale, with frilly purple leaves; Swan columbines in many beautiful colors; and the exquisitely blue-flowered Diamonds Blue delphinium.

To find nurseries carrying Louisiana Super Plants selections near you, go to www.lsuagcenter.com/superplants and click on “Where to Find Super Plants.”
Winter Not Always Time of Rest for Louisiana Gardeners

Winter is not necessarily a time of rest for Louisiana gardeners. Although northern gardeners retreat from an onslaught of snow, ice and frozen ground, we enjoy long stretches of mild weather punctuated occasionally by relatively short episodes of cold. This allows us to stay active in our gardens through the winter season.

Protect Tropicals

We know it will get cold enough again at some point this winter that tropical plants in our landscapes will need protection.

Decide which plants you will choose to protect and which plants will be left to fend for themselves. Make sure you have enough supplies on hand to protect those plants you will cover.

Store Seeds

If you harvested any seeds from your garden to plant next year, or have some packets of seeds left over, place them in a plastic or glass container with a tight fitting lid and store them in your refrigerator to keep them viable.

Make sure you label the seeds with the type and when they were harvested or purchased. Try to use seed within a year of harvesting or purchasing them.

Recycle Leaves

Don’t bag up and throw away all of those valuable leaves! Add them to your compost piles or use them to mulch shrub and flower beds.

Shred the leaves by running over them with a mower (bag attached) and they will decompose faster. Commercial leaf shredders also are available online from many companies that sell gardening equipment.

As you build up your compost pile, sprinkle some fertilizer that contains nitrogen over each 1-foot layer of leaves to encourage decomposition. And don’t forget to keep the pile moist (not wet). Pine straw does not compost as quickly as other leaves and should be handled separately. It’s best applied to beds as mulch. Apply it now or stockpile it in plastic bags to use later.

Keep Up with Weeding

Weeds will continue to grow here through the cool season. Do not let these unwanted bullies take over your flower beds. Your best defense is to keep the soil surface of beds covered with 2 to 3 inches of mulch.

Oxalis, a clover look-alike, is one of the worst. For physical control of oxalis, you must remove not just the foliage but also the carrotlike root or bulbs attached to the leaves. Dig them out with a trowel. An alternative is to use a systemic herbicide such as glyphosate (Roundup and other named brands). Only apply the spray to the foliage of the oxalis and do not allow it to get on the leaves of any desirable plants nearby. It will take several applications to be effective. Retreat when oxalis makes a comeback.

Spring Bulbs

As the rush of the holiday season begins to slow down, it’s time to plant spring-flowering tulip and hyacinth bulbs that have been chilled in the refrigerator for six to eight weeks.

Plant them about 5 inches deep and 4 to 5 inches apart in sunny, well-drained beds. It generally is more effective and attractive to plant bulbs in groups or masses of five or more rather than in a single row.
Remember ‘Gifts’ You Get From Working in Garden

We focus so much on what we have to do for our gardens and landscapes that we forget what we receive in return. Indeed, there are many gifts of the garden if you only take time to notice.

Among the many rewards we get from our gardening efforts are bright flowers, sweet fruit, delicious vegetables and delightful fragrances. These are the obvious gifts that come to mind first and are easily appreciated. But there’s so much more!

Trees create the shade that is so critical when spending time outside in the torrid heat of summer. Indeed, trees that shade our homes from the blazing summer sun even save us money on our energy bills by reducing how hard air conditioners have to work.

Gardening is a well-documented and beneficial form of exercise. It contributes to a healthy lifestyle, and I am always impressed when I meet gardeners in their 70s and 80s who still are actively gardening. As tired as I might be after a day’s work in the garden, I also feel great satisfaction. I know something inside me has been nourished and refreshed by the labor.

There is something about gardening that relieves stress and tension. Working with plants seems to have a calming influence on people. Plants don’t argue with us or tell us what to do. I find ripping out weeds is especially effective in relieving the stresses of work and family.

Gardeners understand gardening is so much more than growing plants. It fills a deep yearning for the connection we need to something beyond ourselves. Gardening is a partnership between the plants and the gardener, and both parties benefit.

Gardens reaffirm our link with nature and help us recognize that living things like plants and wildlife have places in our lives. Gardens teach us to sustain and appreciate the living world, not just use it.

In addition, the landscape in front of your house is a gift to your community. Face it: You don’t really get to enjoy your front yard all that much. But the effort you put into your front yard works wonders for your neighborhood. Well-tended lawns and front gardens full of colorful flowers, trees and shrubs enrich a neighborhood and create a sense of pride (not to mention improving property values). One caring gardener can inspire others on a block to help create a more attractive and pleasant place to live.

Finally, gardens give us a sense of place. I believe we belong as much to our gardens as they do to us. Your yard and gardens, whether a collection of container plants on an apartment balcony or an extensive landscape, provide a place where you can be who you are without judgment or criticism.

So, for all of you who love to get your hands in the dirt, never forget to take some time to enjoy what you have done. If you need a break from this often hectic season of the year, go out into your garden and touch a leaf or smell a flower — and it will calm the stress. It is a gift just waiting to be accepted.

Dan Gill
Consumer Horticulturist
‘Divide and Conquer’ Necessary for Herbaceous Perennials

Division is an important part of caring for and managing herbaceous perennials in the landscape. Division is done on perennials that produce clumps of shoots or crowns or clumps of bulbs or that grow from rhizomes. We also use the word “separate” interchangeably to describe this process.

**When** – Division can be a fairly traumatic process to the plants being divided, so it is best done when the weather is cool and moist (not stressful) and the plants are dormant or just waking up. That makes February an excellent time to divide perennial plants that need it.

Dividing during the late winter or early spring also allows the divisions some time to recover and re-establish before the intense heat of summer arrives around May or June.

Most perennials are dormant this time of year, even those that are evergreen and have plenty of foliage (cast iron plant, liriope, mondo grass and various ferns, for example), or you may see fresh green growth at the base of a plant. Dormant perennials without foliage, evergreen perennials with foliage and those just waking up all may be divided now.

Do not divide those few perennials that are in active growth over the winter and spring, however, such as Louisiana irises, calla lilies, acanthus, lycoris (red and yellow spider lilies), Easter lilies and spring-flowering bulbs. Divide them in late spring or summer as they go dormant or are dormant.

**How** – When it comes time to divide a plant, a clump of the perennial is lifted (dug up) and then sectioned into several pieces. There are two basic techniques to do this: pull and tear apart or cut apart.

Perennials that grow into a clump of individual crowns or from bulbs loosely bound together often can be pulled apart by hand. Or, for larger clumps that would be hard to handle by hand, two garden forks can be inserted into the middle of the clump facing opposite directions. When the handles are pushed down in opposite directions, the tines of the forks will pull the divisions apart.

The other technique is to decide how many divisions to make out of the clump and then use a large, sturdy knife to cut the clump into the desired number of sections. For larger clumps that would be tough to cut with a knife (asparagus fern is a good example), you can use a shovel. Carefully place the blade of the shovel in position to make a cut in the desired place and then use your foot to push down on the blade to cut the clump apart. But try not to cut through crowns when you do this.

Depending on the size of the clump and the number of desired divisions, clumps typically are divided into two to four pieces. Generally, avoid making a lot of small divisions that may take some time to grow into nice-sized plants unless your main goal is propagation.

**Why** – One of the most common reasons for division is to propagate or create new plants. When you divide one clump into three, you have increased the number of that plant.

Dividing also is used to control the amount of space a plant occupies in a bed. After dividing a perennial, the division that is replanted back in the original location is smaller. So dividing occasionally will help keep the perennial under control and keep it from taking too much room. This is how we control gingers, for example.

Finally, dividing plants is used to reinvigorate them. Clumps of crowns or bulbs can become crowded over time, leading to a loss of vigor and poorer flowering. Dividing plants in that situation will reduce the crowding and encourage more vigorous growth and flowering.

Many Ground Covers Suitable 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 that have a sprawling or spreading habit most often are used. The plants used for ground covers generally grow less than 2 feet high.

In addition to the beauty they provide, ground covers are effective in erosion control. Because they don’t have to be mowed, ground covers reduce landscape maintenance. They also are 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 also are useful in areas under trees that have become too shady for grass to grow.

You must carefully consider the characteristics you would like the ground cover to have (height, texture, color, etc.) when making your selection, as well as the growing conditions where it will be planted—such as sunny or shady. You also should 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 Partial 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) and many ferns such as holly fern (Cyrtomium falcatum), wood fern (Thelypteris kunthii), sword fern (Nephrolepis cordifolia) and autumn fern (Dryopteris erythrosora), to name a few.

**Ground Covers for Partial 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, daylilies (Hemerocallis), Wedelia (Wedelia trilobata), perennial verbenas and 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 flower beds 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 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 magnolia, baldcypress and mayhaw.

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 each bush is more prepared to deal with summer heat. Plant roses in sunny, well-prepared beds that have excellent drainage.

12. 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.

13. Continue to plant hardy cool-season bedding plants like pansy, viola, snapdragon, dianthus, Alyssum, ornamental cabbage and others through the winter to provide color to flower beds and containers.

Dan Gill
Consumer Horticulturist
Vegetables to Plant

**December** - Directly seeding and transplanting in December is not recommended often because of potential freezes in south Louisiana and regularly occurring frosts and freezes in north Louisiana. Hold off on planting this month, with two exceptions – onions and shallots. (See crop highlights below.)

Continue to scout late-season fall crops for insects and disease. Even though soils are cool, if regular rain is not occurring, you’ll need to irrigate your home garden.

Order your spring vegetable crop seed this month!

**January** - In early January, plant onions sets. In mid- to late-January, transplant broccoli, cabbage, cauliflower and lettuce into the garden. You also can directly seed Irish potatoes through mid-February.

If you have greenhouse space or a cool frame, start your warm-season transplants this month. Vegetable growers in south Louisiana should start their tomato, eggplant and pepper transplants about the middle of the month. North Louisiana vegetable growers should wait until the end of the month or the beginning of February. You’ll need eight to 10 weeks of growth prior to transplanting into the garden.

**February** - Continue to transplant broccoli, cabbage, cauliflower and lettuce transplants into the garden.

Successive planting ensures you’ll have a steady harvest. You don’t want everything to come in at the same time, so divide your rows into sections, planting a portion of the row and then waiting two weeks to a month and planting the remaining portion — unless you have several deep freezers available or loads of hungry neighbors!

Directly seed beets, turnips, mustard, parsley, radishes, lettuce, snap beans and Irish potatoes.

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Shoot for Early Spring Crops if You’re Still Craving Vegetables

Fall gardens have been growing since late August to early September, so by now you’ve harvested and eaten most of the cool-season crops.

If you’re still craving broccoli, cabbage and cauliflower, or if you didn’t have a chance to plant a traditional fall garden, you can still pull it off. Cool-season plants transplanted into the garden in mid-January to mid-February are considered an early spring crop.

**Crop Highlights**

**Onions:** Transplant pencil-size or smaller onion plants from mid-December through January.

- Fertilize with 6 to 7 pounds of a complete fertilizer such as 8-24-24 or 13-13-13 per 100 feet of row (about 0.6-0.7 pounds per 10 feet of row) about two weeks before transplanting.
- Space plants about 3 to 4 inches apart in the row. You can plant several drills across a row, as long as onion sets are planted on 6-inch centers.
- Side-dress onions, shallots and garlic when growth starts in early February. Use ½ teaspoon of calcium nitrate between every other plant. Two additional side-dressings at two-week to three-week intervals will increase bulb size.
- Control weeds during early November and December. Hand pulling and cultivation are the primary means of weed control in onions. Control thrips with malathion!

**Shallots:** Shallot sets can be planted any time during the winter. If you have some growing in the garden, replant several as you harvest by cutting back tops, separating bulbs and transplanting them again. Separate plants during December and January for next year’s sets.

**Cabbage, Broccoli, Cauliflower and Chinese Cabbage:** Cabbage planted now may encounter low temperatures. Temperatures in the low 20s will injure some of the cabbage, and lower temperatures will freeze many varieties.

- Recommended varieties for winter production are Bravo, Cheers, Blue Vantage, Emblem, Vantage Point and Rio Verde. For reds, try Cardinal, Red Rookie 831, Red Rookie or Salad Bowl.
- Bolting may occur: Bolting is caused when plants go dormant because of prolonged exposure to cooler temperatures (45 degrees Fahrenheit and lower). Bolting of the cool-season crops also will occur when late-season crops are exposed to hot temperatures.
- Each of these vegetables can be planted directly into the field during January, but cauliflower and Chinese cabbage should not be transplanted until late January or February.

**Irish potatoes:** Begin planting Irish potatoes around mid-January in south Louisiana and about the first of February in north Louisiana. Irish potato plants may be nipped back by a light frost, but damage usually is not serious.

- Fertilize at the rate of 7 to 8 pounds of a complete fertilizer (8-8-8, 13-13-13) or 8-24-24 per 100 feet of row before planting (0.7-0.8 pounds per 10 feet of row). Cut seed potatoes into blocky pieces that weight about 1.5 to 2 ounces each or are about the size of an egg. Be sure each seed piece has at least one eye. That is where the plant will originate.
- Plant seed pieces 10 to 15 inches apart in the row. As the potato plants grow, pull soil each week from the sides of the rows up toward the plants to prevent tubers from surfacing. Consuming tubers that were exposed to sun and have green skin can cause quite a stomachache!
Transplant Production

Seeds of cole crops such as cabbage, broccoli and cauliflower will germinate well in cool soils (temperatures from 45 to 50 degrees F) but they have earlier germination times at higher soil temperatures. After germination, plants thrive when temperatures range 70 to 80 degrees Fahrenheit. Most cole crops will be ready to transplant five to six weeks after seeding.

Seeds of tomatoes, eggplants and peppers require warmer soil for germination. This is why a controlled environment is required for uniform germination. Keep transplants in the greenhouse or cold frame. It typically takes eight to 10 weeks to produce a hardy tomato, eggplant or pepper transplant.

Transplants require sunlight. Provide full sunlight all day when seedlings first appear. If starting transplants inside a house, keep on a bright window sill.

Make sure you harden off your transplants before moving them into the garden. Remove the plants from your home or greenhouse and keep outside for one week before planting in garden. Water less frequently than you did when they were growing indoors.

Plant transplants into the garden early in the morning or during early evening. Do not wait any longer than one hour after planting to water!

Every time the LSU AgCenter gives fertilizer recommendations, they are based on a 100-foot row that is approximately 4 feet wide. For instance, if our recommendations say 6 pounds per 100-foot row, it represents the amount for a 400-square-foot area. If you have a garden that is 10 feet wide and 10 feet long, you have 100 square feet. So 6 pounds per 400 square feet would be 1.5 pounds for 100 square feet. A pound of 13-13-13 or 8-8-8 is 1 pint – or 16 ounces or two cups.

Dr. Kathryn Fontenot, Community/School Vegetable Gardens

Become a Louisiana Master Gardener Volunteer

The LSU AgCenter offers home gardeners opportunities to share their skills and knowledge as gardening educators through participation in the Louisiana Master Gardener volunteer program.

Training for the Louisiana Master Gardener program is tailored for beginners and experienced gardeners and is open to anyone with a willingness to learn and a desire to help others.

Classes for certification as a Louisiana Master Gardener are planned, organized and conducted by LSU AgCenter Extension Service educators and offer a variety of interesting horticulture topics. Master Gardener participants learn about insects, diseases, weeds, ornamental plants, lawn care, fruits, vegetables and soil fertility, as well as how to diagnose plant problems.

In exchange for horticulture training, Master Gardeners contribute time as volunteers, working through their parish Extension Service office to develop and enhance community programs related to horticulture.

As gardening educators of the LSU AgCenter, Master Gardener volunteers help both youth and adults gain appropriate gardening knowledge through various service-related programs and activities. Depending on the community needs, those may include garden shows, gardening workshops, answering horticulture phone calls at the parish Extension Service office, garden tours, developing educational materials and newsletters, demonstration gardens, plant health clinics, presentations to garden clubs and community and school gardening programs.

More than ever, home gardeners are becoming active Master Gardeners and joining as partners with the LSU AgCenter to meet the growing public interest for gardening education. Many volunteers who become certified Louisiana Master Gardeners are teachers, business owners, college students, parents, retirees and professionals from all walks of life, culturally and experientially. As Master Gardener volunteers, they bring an excitement and energy to helping meet the educational needs of home gardeners in Louisiana.

Experience the satisfaction of becoming a Louisiana Master Gardener volunteer by contacting your parish LSU AgCenter Extension Service office, or visit www.lsuagcenter.com/mastergardener for more information about the Louisiana Master Gardener Program.

René Schmit
State Louisiana Master Gardener Coordinator
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 (mid- to late August for St. Augustine grass and centipede grass).

Nitrogen fertilizer on dormant to semidormant St. Augustine, centipede 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 nontarget areas.

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 from 3 to 4 inches deep at various places around the lawn. 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 soil test indicate the soil pH is too acidic, lime will be prescribed in the soil test recommendations. Winter is the best time to apply lime so it can be fully activated by the following spring. The correct soil pH is extremely important and has everything to do with nutrient availability to your lawn’s roots and to fertilizer performance.

Turf Establishment

Postpone any permanent warm-season turfgrass establishment from seed until next spring.

Sod, such as St. Augustine grass and centipede grass can be laid during winter and established successfully during the spring. But remember to maintain good moisture to prevent the sod from dying. Establishment of sod is easiest, however, when sodding is delayed until the middle of spring, well after spring green-up.

Brown Patch

Brown patch disease can come and go throughout the winter if the weather is mild.

Treatment with fungicides containing myclobutanil, propiconazole, pyraclostrobin, thiophanate-methyl and triticonazole will reduce the spread of brown patch. In addition, azoxystrobin is now available as granular fungicide. Azoxystrobin is one of the best fungicides on brown patch disease.

Damage from brown patch will slow spring green-up, and affected areas will remain unsightly until warmer spring weather conditions help with turfgrass recovery.

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 to mid-April.

Winter Weed Management

Broadleaf weeds and annual bluegrass infesting St. Augustine grass, centipede grass and zoysia, as well as dormant Bermuda grass, can be managed with applications of atrazine herbicide.

February and March are good months to spray winter weeds while they are still actively growing. Also, herbicides containing three-way mixtures of 2,4-D plus dicamba plus mecoprop can be used for winter broadleaf control in all southern turfgrasses this time of the year.

Since weed-and-feed products usually contain high levels of nitrogen fertilizer, application should be delayed until the appropriate times for applying nitrogen-containing fertilizers for your area. (See information about brown patch above for recommendations about timing of fertilizer application.) Weed-and-feed products can be substituted as your first application of fertilizer during the early spring.

Ron Strahan
Turfgrass Science
To better select fruit for planting, growers should become familiar with the terms used to describe pollination characteristics and fruitfulness of different fruit types. Some of the most basic terms that need to be understood are pollination, self-pollination, cross-pollination, self-fruitful, cross-fruitful, parthenocarpic and perfect-flowered.

Pollination refers only to the transfer of pollen from the anthers (male structure) of one flower to the stigma (female structure) of the same or another flower. The processes of pollination and subsequent seed formation generally are necessary for fruit set and development of most fruit plants.

Self-pollination occurs when flowers are pollinated by pollen within the same horticultural variety from the same or different trees. Most peach varieties, such as Redhaven, are fruitful when self-pollinated and therefore can be planted in very large blocks without using a second variety.

Cross-pollination occurs when flowers of one variety are pollinated by pollen from a second variety. For example, Golden Delicious varieties often are used in apple orchards to cross-pollinate Red Delicious varieties.

Self-fruitful implies that a single variety of a given fruit type will produce satisfactory fruit crops when grown by itself. This may occur because the variety is self-pollinating (such as peaches) or because they are parthenocarpic (such as some persimmons, figs and satsuma oranges).

Cross-fruitful implies that cross-pollination is required among two or more varieties to produce satisfactory crops. Red Delicious apple varieties, for example, are cross-fruitful when cross-pollinated with varieties such as Golden Delicious.

Parthenocarpic basically means fruit are produced without complete seed development, resulting in seedless fruits. Satsuma oranges, for example, have sterile pollen, mostly nonviable ovules, and are highly parthenocarpic, which results in the production of seedless fruit.

Perfect-flowered means flowers of a given variety have functional male and female parts. Carlos is a perfect-flowered muscadine grape that is self-fruitful and is used as a pollinator for female type varieties such as Fry.

Whether a fruit type is self-fruitful or requires cross-pollination influences how varieties are arranged in a planting. For self-fruitful plants, single varieties perform well when planted alone. For fruit types requiring cross-pollination, two or more varieties of each type should be planted. In large commercial operations, planting entire rows with the same variety makes management of cultural practices and harvesting much easier and more cost effective. When only the minimum number of pollinizers is desired, a pollinator variety should be planted as every third plant in every third row.

Most fruit trees belong to the group that requires cross-pollination. These trees not only need pollen from another tree, but the tree must be of a different variety. Pollen from its own flowers or those of another tree of the same variety will not be able to successfully pollinate the female parts of the flowers, due to incompatible timing. You'll need to do a little homework to find the right mix of varieties. Extension Service publications and gardening books are good places to find suggested combinations.

Even if you have compatible trees in place, other factors can interfere with pollination. One of the most frustrating foes of pollination is the weather, since we have so little control over such things as frost, rain and wind.

Flower buds are formed in autumn for the following year’s crop. In cold climates, severely low temperatures in winter can kill or injure the buds before they open. Those that do make it through winter can be injured by spring frosts. The more developed the bud, the more sensitive it is to cold injury. Fortunately, not every flower bud on the tree needs to survive to have a good crop. But each time frost damage occurs, the fruiting potential decreases.

When successful pollination does not take place, the flowers may drop immediately following the blooming period. In some cases, what appears to be a small fruit will form but then drop off after a few weeks.

In mild years, when most of the flowers survive, a tree may set more fruit than it is capable of supporting on to maturity. The tree may then self-abort some of the fruit in a natural thinning process sometimes called “June drop.” The tree will drop many small-sized fruit at about the same time, making for a dramatic, and often alarming, show. But the tree should have plenty more fruit staying on that will be in better position to share the tree’s resources.

For adequate cross-pollination to take place, trees should be within 50 feet of each other. Pollen is too heavy and sticky for wind to carry it, so bees must do the job. Protect those bees by omitting the insecticides from your orchard pesticide sprays while trees are in bloom.

Dave Himelrick, Ph.D.
Visit our LSU AgCenter Store
www.lsuagcenter.com/OnlineStore

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