Horticulture Hints

Winter
2010-2011

Landscape Gardening and Ornamentals

What to do before a freeze

- **Water**

  Thoroughly water landscape plants before a freeze if the soil is dry. Strong, dry winds may cause damage by drying plants out, and watering helps to prevent this. Wetting the foliage of plants before a freeze does not, however, provide any cold protection.

- **Move Inside**

  Move all tender plants in containers and hanging baskets into buildings where the temperature will stay above freezing. If this is not possible, group all container plants in a protected area (like the inside corner of a covered patio) and cover them with plastic.

- **Mulch**

  For plants growing in the ground, mulch with a loose, dry material such as pine straw or leaves. Mulches will only protect what they cover and are best used to protect below-ground parts and crowns – or they may be used to completely cover low-growing plants (to a depth of 4 to 6 inches). But don't leave a complete cover of mulch on for more than three or four days.

- **Cover**

  Smaller individual plants can be protected by covering them with various sizes of cardboard or plastic foam boxes.

  Larger plants can be protected by creating a simple structure and covering it with sheets, quilts or plastic. The structure holds the covering off the foliage, preventing branch breakage and improving cold protection. It need be nothing more elaborate than three stakes slightly taller than the plant driven into the ground. The cover should extend to the ground and be sealed with soil, stones or bricks. Plastic covers should be vented or removed on sunny, warm days.

  For severe freezes, when temperatures dip into the teens, providing a heat source under the covering helps. A safe, easy way to do this is to generously wrap or drape the plant with small outdoor Christmas lights. The lights provide heat but do not get hot enough to burn the plant or cover. Please be careful and use only outdoor extension cords and sockets.

  If necessary, you may prune back a large plant to make its size more practical to cover.

What to do after a freeze

Unless you are keeping container plants inside for the rest of the winter, move them back to their spots outside.

For plants that you covered, remove or vent clear plastic covers to prevent excessive heat buildup if the next day is sunny and mild. You may leave plants covered with blankets or sheets for several days without harming them, but the covers eventually will need to be removed so the plants can receive light.

Do not prune anything for several days after a freeze. It often takes several days for all of the damage to become evident.

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

Generally, it's a good idea to delay hard pruning of woody tropical plants – such as hibiscus, tibouchina, angel's trumpet, croton, ixora, schefflera, copper plant and rubber tree – until new growth begins during the spring and you can more accurately determine which parts are alive and which are dead.

Tropical and subtropical plants can be used effectively in the landscape, but they must be protected or replaced when necessary. The best idea is to plant a good combination of tender and hardy plants so your landscape is not totally devastated by any extremely cold weather.

Plant landscape trees during winter

December, January and February are excellent months to plant trees into your landscape.

Deciduous trees are leafless this time of the year, so when you go to the nursery to make your selection, expect to see bare branches. Don't be afraid to purchase and plant these trees. Their dormancy makes this a great time to get them into the ground. Evergreen species will, of course, have foliage.

Decisions involving the selection and placement of trees in your landscape are some of the most important you will make. No other plants can create the major problems that poorly selected or improperly placed trees will. The most common mistakes include planting too many trees, planting trees that grow too large for the site, planting trees that aren't well adapted to Louisiana and planting trees too close to a house or structure.

Remember that the trees you plant will grow much larger than the saplings you purchase and bring home from the nursery. It is tempting to plant more trees than you really need, but years later you'll realize you made a terrible mistake. Cutting down a tree is never an easy decision, so it is better not to put yourself (or someone else who owns the property later) in that situation.

To get a feel for how well a tree will fit in the spot you have selected, try this exercise:

- Drive a stake into the ground where you intend to plant the tree.
- Find out the expected spread of the branches of the mature tree. (Check with your LSU AgCenter county agent or a reference such as Southern Plants by Odenwald and Turner.)
- Divide the expected spread by 2 and cut a piece of twine or string that many feet long. If, for instance, the expected spread is 40 feet, cut a piece of string 20 feet long.
- Tie one end of the string to the stake, stretch out the string to its full length and walk in a circle around the stake.
- That will give you an excellent idea if the tree is the right size for the location. If more than one tree will be planted in an area, do this procedure for each tree.

How to properly plant a tree

When planting a tree, dig the hole at least twice the diameter of the root ball and no deeper than the height of the root ball.

Remove a container-grown tree from the container and place the tree gently onto the firm, undisturbed soil in the bottom of the hole. A root ball that's tightly packed with thick, encircling roots indicates a root-bound condition. Try to unwrap or open up the root ball to encourage the roots to spread into the surrounding soil.

Set a balled-and-burlapped tree into the hole with the burlap in place. Once the tree is in the hole, remove any nylon twine or wire basket that may have been used and fold down the burlap from the top of the root ball. Remove synthetic burlap completely – check with nursery staff when you purchase the tree to determine if the burlap is synthetic.

The top of the root ball should be level with or slightly above the surrounding soil. It is critical that you do not plant the tree too deeply.

Thoroughly pulverize the soil dug out from the hole and use this soil, without any additions, to backfill around the tree. Research shows blending amendments such as peat moss or compost into the soil used to fill the hole slows establishment. It encourages the roots to grow primarily in the planting hole, delaying their spread into the soil beyond, and it may also interfere with drainage. As a tree grows, its roots will grow out well beyond the reach of its branches. Since the roots will spend most of the tree's life growing in native soil outside of the planting hole, they might as well get used to it from the beginning.

Add soil around the tree until the hole is half full. Then firm the soil to eliminate air pockets, but do not pack it tightly. Finish filling the hole, firm again and then water the tree thoroughly to settle it in. Generally, we do not add fertilizer to the planting hole, although it is OK to use some slow-release fertilizer in the upper few inches, if you like. The use of a root stimulator solution is optional.

Stake the tree properly if it is tall enough to be unstable. Otherwise, staking isn't necessary. If you do stake a tree, however, don't leave the support in place for more than nine to 12 months.

It is beneficial to keep the area 1 to 2 feet out from the trunk free from weeds and grass. This encourages the tree to grow faster by eliminating competition from grass roots and also prevents lawn mowers and string trimmers from damaging the bark at the base of the tree.

Pruning everblooming roses

Roses should be pruned anytime from late January (south Louisiana) through mid-February (north Louisiana).

This pruning is especially important for the popular hybrid tea and grandiflora roses. Without this annual pruning, these roses can become leggy, less vigorous and unattractive and do not bloom as well. Even more, all types of roses generally require some pruning each year to control their shape or size.

Use sharp bypass hand pruners on roses. Should you need to cut canes larger than one-half inch in diameter, you should use bypass loppers. It's a good idea to wear a sturdy pair of leather gloves and long sleeves to protect your hands and arms from the thorns.

Here is the basic procedure for pruning back hybrid tea and grandiflora roses:

First, remove all diseased or dead canes by cutting them back to their point of origin. Weak, spindly canes the diameter of a pencil or less, should also be removed the same way. A good rose bush should have four to eight strong, healthy canes the diameter of your finger or larger after this first step.

Then cut back the remaining canes to about 24 inches from ground level. When you prune back a cane, make the cut about one-quarter inch above a dormant bud or newly sprouted side shoot. Try to cut back to buds that face outward – away from the center of the bush. The new shoot produced by the bud will grow outward, opening up the bush for light, air and orderly growth. This may seem picky, but this really does make a difference.

Other types of roses that are everblooming (such as China, tea, noisette, Bourbon, polyantha, floribunda, landscape and miniature roses) also may be pruned now. In general, roses in these categories have more pleasing shapes without severe pruning. Unless there is a need to control their size, they are only lightly shaped under most circumstances.

These roses also should have any dead or diseased canes pruned out, however. To shape the bushes, you can use hand pruners to selectively cut back individual branches. These tough roses can even be sheared with hedge shears to shape them and encourage full, bushy growth.

If some of your bushes are considerably overgrown, they will tolerate severe pruning to get them back into shape. As a rule of thumb, these roses are cut back about one-quarter to one-half their height, depending on the situation. Long, especially vigorous shoots that have grown well beyond the rest of the bush and make it look out of balance may be cut back harder than the rest of the bush.

Young bushes planted within the past year or two are not likely to need drastic pruning but they may be cut back slightly to encourage a full, bushy plant.

It is far easier for you and healthier for the rose bush if you prune at least once a year. It is very difficult to properly prune a rose bush that has been allowed to grow for several years without pruning.

Don't forget that we also do a second, but not as severe, pruning on everblooming roses in late summer – around late August.

Checklist for December, January and February

1. Daffodils can be planted through late December. Excellent cultivars are Ice Follies, Fortune, Carlton and Unsurpassable.
2. Remove old flowers from your cool-season bedding plants to extend blooming and improve flower performance.
3. Plant gladiolus during late February in south Louisiana. Prolong the blooming season by planting at two- to three-week intervals for a couple of months.
4. Mulch shrub and flower beds to get plants off to a good spring start and minimize weed problems.
5. Watch azaleas during February for lacebugs. 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 Wave series.
7. Winter is a great time for planting trees. Some excellent native species for Louisiana include Nuttall oak, Shumard oak, winged elm, 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 the bush is more prepared to deal with summer heat when it arrives around 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." The fall selections include two sets of cool-season bedding plants that can be planted now. Those are the Amazon dianthus: Neon Purple, Neon Cherry and Rose Magic and the Camelot foxglove, which comes in lavender, white, cream and rose. This fall's Super Plants also include an excellent shrub that is in bloom now; it's the 'Shishi Gashira' camellia.

Dan Gill
Consumer Horticulture

LOUISIANA
Master Gardener SM
An educational program of the LSU AgCenter

Become a Louisiana Master Gardener volunteer!

The mission of the Louisiana Master Gardener volunteer program is to support the LSU AgCenter's Cooperative Extension Service by using research-based information to help educate the public on best management practices in consumer horticulture and environmental stewardship.

Master Gardener volunteers play an important role in reaching the consumer horticulture audience and learn quickly that being a Master Gardener volunteer is fun, interesting and rewarding.

The Master Gardener program provides interested individuals with extensive training in many phases of gardening specific to Louisiana. In return, participants dedicate volunteer time to sharing horticulture information with others.

Training and organized volunteer activities are conducted at the parish level by LSU AgCenter educators or trained volunteers. In Louisiana, Master Gardener training classes are offered in more than 20 parishes – with 47 parishes benefitting from Master Gardener volunteer involvement.

Today, more than ever, home gardeners are becoming active Master Gardener volunteers and joining as partners with the LSU AgCenter to meet the growing interest in landscaping and gardening and the associated products and information. Many 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.

Sign up today and experience the satisfaction of becoming a Louisiana Master Gardener volunteer by contacting your parish LSU AgCenter Extension Office, or visit www.lsuagcenter.com and click on lawn and garden and then on Master Gardener Program.

René G. Schmit, State Master Gardener Coordinator

Vegetable Gardening

Vegetables to plant during

December

- Onions (transplants), shallots (sets or green transplants), spinach, endive, escarole and cabbage (seeds or transplants).
- Root crops and greens may be started.
- Lettuce, cabbage, broccoli, Brussels sprouts and cauliflower seeds may be planted in south Louisiana cold-frames or protected areas to produce transplants for spring harvest.

January

- Beets, carrots, radishes, turnips, cabbage, broccoli, mustard, spinach, kale and Irish potatoes.
- Transplant onions, shallots and celery.
- Seed in cold-frame, hotbed or greenhouse during January: tomatoes, peppers, eggplants, cabbage, broccoli, Chinese cabbage, cauliflower and lettuce.

February

- Beets, broccoli, cabbage, carrots, turnips, mustard, spinach, parsley, Chinese cabbage, radishes, Irish potatoes, leaf lettuce, head lettuce, tomatoes, eggplants, snap beans and sweet corn in extreme south Louisiana during the last part of the month.
- Transplant broccoli, cauliflower, cabbage and lettuce.
- Plant seed sweet potatoes in warm (70 degrees) raised beds for slips.

People often overlook vegetable gardening during the fall. Fortunately, vegetables can be planted year-round in Louisiana.

In addition to what you can plant now, you also can be thinking about your warm-season vegetable crops, and you need to remember to order seeds in late December when most of the varieties are still available. If you wait too long to order your seeds, a lot of the unique vegetable varieties will be sold out!

Crop Highlights

Onions: Transplant pencil-size 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 inches to 4 inches apart in the row. Several drills may be planted on a row with 6-inch to 12-inch spacing between drills.

Side-dress onions, shallots and garlic when growth starts in early February. Use ¼ teaspoon of Ammonium nitrate or 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.

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 separating plants and cutting them back 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 or Red Rookie.

Bolting may occur. Bolting is caused when plants go dormant because of prolonged exposure to cooler temperatures (45 F and lower). Bolting of the cool-season crops will also 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 February.

Irish potatoes: Begin planting Irish potatoes around mid-January in south Louisiana and around the first of February in north Louisiana. 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 weigh about 1½ to 2 ounces each or are about the size of an egg. Be sure each seed piece has at least one eye; this is where the plant will originate. Irish potato plants may be nipped back by a light frost, but damage usually is not serious.

Plant seed pieces 10 to 15 inches apart in the row.

Transplant Production

Seeds of cole crops such as cabbage, broccoli and cauliflower will germinate well in cool soils (temperatures from 45 to 50 degrees). But they have earlier germination times at higher soil temperatures. After germination, grow plants at 70 degrees to 80 degrees for about two months for best results.

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

Dr. Kathryn Fontenot, Community/School Vegetable Gardens

Fruits

Oriental or Japanese Persimmons

The oriental persimmon, *Diospyros kaki*, is an easy-to-grow tree that is adaptable to much of Louisiana.

The tree has a compact spreading growth habit and low maintenance requirements. The ornamental beauty of its orange fruit and colorful foliage during the fall makes it an attractive plant in the home landscape. It also is fairly winter-hardy in northern Louisiana, but, in general, mature persimmon trees do not tolerate temperatures below 10 degrees Fahrenheit.

Oriental persimmon trees are relatively free from serious insect and disease problems. The primary problem with persimmon culture is alternate-year bearing. Alternate bearing is common in most varieties and is related to factors such as crop load (too heavy or too light), tree age or vigor, soil moisture and pollination requirements.

There are two major types of persimmon fruit based on fruit astringency. One group, the nonastringent types, may be eaten while the fruit is still mature and firm. Fruit of the other group must be soft before astringency is lost.

Nonastringent varieties should be planted for home use, although astringent varieties can be grown in Louisiana. Seeds generally are not produced in the nonastringent fruit as in the native persimmons, but seeds may be produced in some years in some varieties.

Cultural Practices

Site Selection: Persimmons generally bloom late enough in the spring to avoid spring frosts. The trees grow well on a wide range of soils, although they grow best on loamy, well-drained soils. As with other fruit trees, a soil pH of 6.0 to 6.5 is optimum for tree growth.

Persimmon trees will withstand drought, but fruit size and yield are reduced. Also, adequate moisture is required to produce sufficient shoot growth and formation of flower buds for next year's crop. During extended dry periods, irrigation should be provided to the trees on a weekly basis.

Planting: Prior to planting, be sure to take a soil sample for pH and nutrient recommendations. If lime is required to raise the pH, apply it during the late fall or early spring and incorporate it to a depth of 12 to 18 inches.

Also, make sure to select varieties adapted for your area. Rootstock selection is important, too. Oriental persimmons generally are grafted onto seedlings of the American persimmon, *Diospyros virginiana*. The main advantage to using American seedling rootstock is that these seedlings tolerate excessive moisture and drought quite well and are adapted to the climate of Louisiana, but they are prone to suckering, which needs to be pruned out annually. There is a lack of uniformity of tree vigor and size associated with *D. virginiana* rootstocks.

Care must be taken when transplanting a persimmon tree because of its fragile root system. In general, trees should be planted at the same depth they grew in the nursery (or no more than 1 inch below that depth). The root system must never be subjected to freezing or drying conditions. To ensure good root growth after planting, water the trees immediately after setting them out and on a weekly basis thereafter if they receive no rainfall.

Like all fruit trees, persimmons require full sun to ensure good tree and fruit growth, as well as fruit bud development. Trees should be spaced 15 to 16 feet apart.

Fertilizer Recommendations: Persimmon trees respond to nitrogen applications, especially in years of a heavy crop load. A rule of thumb is that 1 ounce of actual nitrogen per year of tree age should be applied, although this should be adjusted according to the native fertility of the soil and the tree's general vigor. For example, a tree grown in a clay loam will require less applied nitrogen than a tree grown in a sandy soil. As a note of caution, however, excessive nitrogen can cause high amounts of premature fruit drop.

Occasionally, other nutrients such as phosphorus, potassium or zinc may need to be supplied. A soil test will be necessary to determine exact recommendations.

Pruning: Persimmon trees generally are trained to a modified central leader system. Develop three to five well-spaced branches (approximately 8 to 12 inches apart) along the trunk. The first limb should be 3 to 4 feet from the ground. Leave an area of approximately 2 feet on the leader without branches and allow three to four more branches. Then cut off the leader above the highest branch.

Pruning mature trees should be kept at a minimum. Remove crowded or weak branches, diseased or broken limbs or excessively vigorous growth such as water-sprouts or root suckers. Pruning is required to renew fruiting wood, since flowers are borne on current season's wood. New growth can be stimulated with moderate pruning cuts every year or two. Pruning also will give a strong framework for the tree to bear a heavy crop load. This is important because persimmon wood is brittle and breaks easily with heavy crops.

Harvesting, Storing and Ripening: Fruit should not be picked until full color has been attained. The fruit bruises easily, so care should be taken when picking them.

After harvest, the fruit may be stored for several weeks in a refrigerator. Fruit also can be frozen and stored for longer periods. Prior to freezing, the fruit can be peeled, pureed and put into tightly sealed plastic bags or containers. It also can be frozen whole and then thawed and processed as needed. The freezing process removes some astringency, so the fruit of the astringent varieties does not need to be fully softened prior to freezing. Simply freeze the fruit until solid and remove fruit when desired.

The softening and ripening process also can be accelerated by placing firm, ripe (fully colored) persimmons in a loosely closed plastic bag with an apple or banana. Apples and bananas produce a gas, ethylene, which promotes fruit softening and ripening.

Use: Persimmon fruit is delicious as a fresh fruit, or it can be used in a variety of products such as puddings, breads and cookies.

The nonastringent types, such as 'Fuyu' and 'Jiro', may be consumed when the fruit has achieved full color. The nonastringent fruit can be eaten while still firm. The flavor and texture are quite pleasant.

Fruit from astringent varieties such as 'Hachiya' must be softened completely before use, however. But it is preferable for use in baked goods.

Here are some persimmon varieties suitable for culture in Louisiana:

Astringent types

- Hachiya
- Sajio
- Tanenashi

Non-astringent types

- Fuyu Imoto
- Hana Fuyu
- Jiro

Dr. David Himelrick

Turfgrasses and Lawns

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. In fact, nitrogen fertilization should have ceased 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.

Winter is an excellent time to collect soil samples and submit them for analysis. Samples should be a composite of soil taken from about 3 to 4 inches deep at various places around the lawn.

To get your sample tested, bring about 1 pint of soil to your parish's LSU AgCenter Extension Service office or 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 cost only $10, but they provide 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.

Postpone any permanent warm-season turfgrass establishment from seed until next spring. Sod, such as St. Augustine and centipede grasses, can be laid during winter, if necessary, but remember to keep it moist to prevent it from drying out and dying. Establishment is easiest when delayed until the middle of spring, well after spring green-up.

Brown patch disease can come and go throughout the winter if the weather is mild. Treatment with fungicides containing captan, chloroneb, fenarimal, fludioxonil, flutolanil, iprodione, mancozeb maneb, myclobutanil, PCNB, polyoxin D, propiconazole, pyraclostrobin, thiophanate-methyl, thiram, trifloxystrobin 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 allow for 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 growth that is more susceptible to injury from late frosts or brown patch. 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.

Broadleaf weeds and annual bluegrass infesting St. Augustine, centipede, zoysia and dormant Bermuda grasses 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 at this time of the year.

Since weed-and-feed products usually contain high levels of nitrogen fertilizer, however, application should be delayed until the appropriate times for applying nitrogen-containing fertilizers. Weed-and-feed can be substituted as your first application of fertilizer during the early spring.

Ron Strahan
Turfgrass Science

The Importance of Taking Soil Samples for Homeowners and Gardeners

Soil sampling is a very useful tool if you are a homeowner or grow any of the following plants:

- turfgrass
- ornamentals
- fruits
- vegetables
- trees
- house plants

Soil sampling and soil testing are probably the most effective tools a homeowner has to help determine soil nutrient levels. Soil tests can help save the homeowner time and money as well as encourage a healthy environment by reducing unnecessary fertilizer use.

Plants require 16 essential nutrients to grow. Nitrogen, phosphorus and potassium are major elements and are required in relatively large amounts. Others like calcium, sulfur and magnesium are minor elements and are required in moderate amounts. Still others are required in extremely small amounts; however, these micronutrient elements are just as important as the major elements. If any of the 16 essential elements is not present in adequate amounts, plant growth and development will decrease. On the other hand, if some of the same nutrients are present at excessive levels, they can be toxic to plants and be a source of pollution in the environment.

The LSU AgCenter Soil Testing and Plant Analysis Laboratory (STPAL) housed in Madison B. Sturgis Hall on the LSU campus in Baton Rouge, La., analyzes soil samples. The routine soil test, costing $10 each, provides results that give recommendations for the amount of fertilizer and lime needed for maximum plant production. The routine soil test is generally the only soil test a homeowner will need. The results of this soil test show the soil texture, soil pH and extractable levels of phosphorus, potassium, calcium, magnesium, sodium, copper, sulfur and zinc. Other determinations from this soil test will be either a lime or sulfur requirement, in case the soil pH needs to be adjusted for the intended plants.

Fall is a good time to sample soil so that adequate lime may be applied and can react with the soil by raising the pH prior to spring planting. By sampling and getting your soil testing accomplished in the fall, sufficient time is allowed to make plans for spring fertilizer applications for many types of plants, especially home vegetable gardens.

An important part of the soil test is the soil pH, which is a measurement of soil acidity. If soil pH is less than 5.5 or greater than 7.5 (for most plants), some essential elements may not be available to the plant while some toxic elements, such as aluminum, become available to the plant. Soil pH can be adjusted by applying ground limestone to raise the pH or by adding ground elemental sulfur to lower the pH.

The Importance of Sampling

It is very important to take soil samples correctly in order to receive accurate soil fertility recommendations. To get a representative soil sample, the following steps need to be taken:

- Collect six to eight small samples from within the top 6 inches (4 inches for lawns) of the soil within the area of concern.
- It is important to collect as uniform samples as possible. The more small samples that are collected, the better, more uniform representation of the area. A bulb planter or shovel takes very good samples.
- As samples are collected, mix them together thoroughly in a plastic bucket because galvanized or tin buckets can contaminate the soil and cause inaccurate test results.
- Discard all stones, roots and debris. Transfer about 1 to 1.5 cups of soil from the small plastic bucket to a small zip-type plastic bag or to a soil sample box provided by the STPAL. Your local AgCenter office has a free supply of these boxes and a Soil Test Request Form. The General Public-Soil Test Request Form can be found on the STPAL website at www.lsuagcenter.com/soiltest. On that site, click on "forms" and print a hard copy.
- Give each box or bag a number or some sort of code so you will know where the sample came from. Complete the Soil Test Request Form, provide the appropriate payment, enclose the soil sample in a sturdy mailing container and mail it directly to the STPAL. The address is in the upper right-hand corner of the General Public-Soil Test Request Form.

Generally, within five business days of the date the sample is received into the STPAL, if you have provided an e-mail address on the form you mailed, you will receive a PDF file attached to an e-mail. This will be your Soil Test Results Sheet. If an e-mail address is not given, STPAL will mail a copy of your Soil Test Results Sheet to you, along with a Soil Test Information Sheet for the crop(s) you indicated. This will delay receiving the results by only a few days.

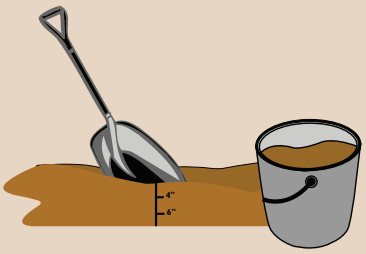
Your local county agent also receives a copy of the results sheet. You can find the telephone number for your local AgCenter office in bold print on the results sheet. If you have questions or concerns about the information you receive, feel free to contact a county agent. They are willing and able to assist in answering your questions.

Soil Test — Don't Guess

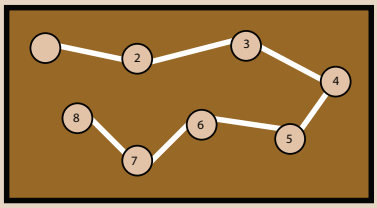
J Stevens
Associate Professor and Extension Soils Specialist

Method for Proper Soil Sampling

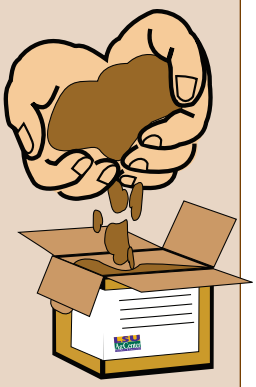
1. Sample to depth of 4" -6"



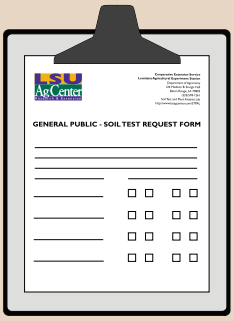
2. Collect 6-8 small samples from multiple areas.



3. Mix soil thoroughly in a plastic bucket. Discard all stones, roots and debris.



4. Place 1 to 1.5 cups of the mixed soil in a small zip-type plastic bag or a soil sample box. Label with identification number. Sample boxes are available free from your county agent.



5. Fill out Soil Test Request Form and take it to your local LSU AgCenter extension office or mail to LSU AgCenter Soil Testing Lab for analysis.

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2012 Get It Growing Gardening Calendar Call For Entries • Deadline January 31, 2011

Promote your gardening photographs by entering the LSU AgCenter's Get It Growing Gardening Calendar Competition. Submit your eye-popping images of Louisiana flowers, fruits, vegetables, gardens, trees, etc. for all months of the year.

We are developing our 2012 calendar for Louisiana as part of our "Get It Growing" educational program. This calendar will feature information on what to do for beautiful and lush lawns and gardens according to climate zone in the state. It will be for sale and serve as a fund-raising device for the LSU AgCenter programs and initiatives.

Approximately 40 photographs will be chosen for the calendar, 12 of those being used for the full-page/full-bleed /4 color monthly pages and cover. Photographers chosen for the monthly pages will receive name recognition with their photos and 10 copies of the published calendar. The remaining photographs will be included throughout the calendar. Photographers of these images will receive 2 copies of the published calendar.

Eligibility: All images must be the original work of the photographer submitting the piece. Submission of entries acknowledges the right of the LSU AgCenter to use them for the Get It Growing calendar and promotional materials. All proceeds from the sale of the calendar go to support LSU AgCenter programs and initiatives.

For more information, call 225.578.2462 or visit our website: www.lsuagcenter.com/getitgrowingcalendar

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Horticulture Hints

Winter
2010-2011

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Prepared quarterly by:

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Charles Graham, Ph.D., Nuts
David Himelrick, Ph.D., Fruits
Ron Strahan, Ph.D., Lawns

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