Horticulture Hints



Fall 2013

Landscape Gardening and Ornamentals

Louisiana Super Plants Are Tough, Beautiful

The Louisiana Super Plants program is an LSU AgCenter educational and marketing campaign that highlights tough and beautiful plants that perform well in Louisiana landscapes.

Louisiana Super Plants selections have a history of outstanding performance in Louisiana or have gone through several years of university evaluations and observations. Louisiana Super Plants are "university tested and industry approved."

There are three parts to the Louisiana Super Plants program. The first is identifying outstanding plants. The second is getting the word out to Louisiana gardeners. The third part is that the Louisiana Super Plants program works closely with wholesale growers in Louisiana to ensure they produce plenty of the selected plants, and retail plant sellers are kept informed of the selections and are encouraged to carry them.

Go to www.lsuagcenter.com/superplants for more information. Click on "Where to Find Super Plants" to find participating retail nurseries near you.

Louisiana Super Plants for Fall 2013

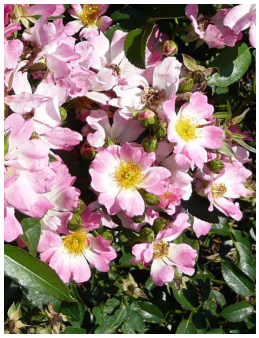
Diamonds Blue Delphinium (*Delphinium chinensis* 'Diamonds Blue')

- Cool-season bedding plant
- Full to part sun
- Grows 14-16 inches tall by 12-14 inches wide
- Space 12 inches apart
- Plant October through February
- Uniquely colored vivid electric blue flowers
- More vigor, more stamina and more flowers than other delphiniums
- Compact grower that is excellent for bedding
- Potential long blooming season (winter through spring), if planted in early fall



Drift Roses (*Rosa hybrid* Drift Series)

- Summer-flowering shrub
- Full sun
- Grows 2.5-3 feet tall by 3-4 feet wide
- Space 3-4 feet apart
- Comes in a variety of attractive colors
- Lower growing landscape rose
- Excellent for foundation planting and bedding
- Flushes of bloom occur from spring to frost
- Low maintenance alternative for colorful flower beds
- Tough, drought-tolerant and disease-resistant



Willow Oak (*Quercus phellos*)

- Deciduous native shade tree
- Full sun
- Grows 80 feet tall by 50 feet wide
- Upright oval growth habit fits in urban landscapes better than live oaks
- Narrow willow-shaped leaves are neat when dropped
- Small acorns are eaten by wildlife
- Fast growth rate for an oak
- Adaptable to wide range of soil conditions



Great Plants for Fall Flowers

Two of the most outstanding shrubs for blooming in the fall are sasanquas and various roses.

Sasanquas (*Camellia sasanqua*) are among the indispensable shrubs for Louisiana. Dwarf types stay under 3 feet tall, while standard varieties will slowly grow to 10-12 feet tall and can be trained as a clipped hedge, large shrub or tree. The 2- to 3-inch fragrant flowers are produced in abundance and come in shades of light red, rose, pink and white, depending on the variety you choose. In late fall and early winter, camellias (*Camellia japonica*) will begin to bloom and continue through the winter.

Everblooming roses will produce outstanding flowers from October through early December – and even longer if the winter is mild. They provide outstanding color and fragrance to the fall garden.

Although generally not known for their fall blooming, azaleas that bloom during seasons other than spring are becoming more available and popular. Visit your local nurseries this fall and look for the azaleas that are blooming. Particularly notable are the Encore azaleas, some of the Robin Hill azaleas such as Watchet and Conversation Piece and the popular Glen Dale variety Fashion.

In addition to the popular chrysanthemum, herbaceous perennials such as the toad lily (*Tricyrtis formosana*), Mexican tarragon (*Tagetes lucida*) and cigar plant (*Cuphea micropetala*) also contribute to the late-year floral display. And gingers that belong to the genus *Hedychium*, such as the butterfly ginger and Kahili ginger, bloom abundantly until the first really cold weather occurs.

Although they bloom through the summer, salvias always seem to look especially good in the fall. Two species, Mexican bush sage (*Salvia leucantha*) and forsythia sage (*Salvia madrensis*) are outstanding. Mexican bush sage produces spikes of furry purple or white flowers on 3- to 5-foot tall plants. Forsythia sage is an unusual yellow blooming salvia that makes large spikes of mellow yellow on a 5-foot plant with dark green quilted leaves.



Growing Wildflowers

Enjoying the beauty of wildflowers often leads gardeners to wonder if they could create the same effects in their own landscapes. The answer is yes.

In some landscapes, natural looking areas of wildflowers would be very appropriate. The wild, untamed look of these plants is entirely appropriate in casual, informal style landscape designs.

Although the look you are trying to achieve may be spontaneous and natural, growing wildflowers requires planning. Look carefully at the growing conditions in the area where you want to plant wildflowers. You must use wildflowers that will thrive under those conditions if you expect success. Note especially how much sun the area receives, the texture of the soil and if the area tends to be damp or dry. There's a wildflower for virtually any environment.

The easiest type of wildflower garden to establish is an open field grown from seed. Fall planting of seeds tends to produce the best results. Plant those seeds in late October through November. Spring planting also may be done in late February.

Select a sunny area to be planted and eliminate existing vegetation such as aggressive grasses by hand removal or by using the herbicide glyphosate. Wildflower seeds will not germinate well in an area with established, thick vegetation. Turn the soil with a shovel or tiller and rake smooth. Generally, no fertilizer or soil amendments should be added to the soil during preparation.

For a small planting, mix the wildflower seeds with sand or sandy soil and broadcast evenly over the area by hand. Lawn seed spreaders work well for larger areas. Make sure you use seeds or seed mixes of species that do well in our area. If possible, provide good seed contact with the soil by pressing the seed into the soil with a board or roller.

The seeds should be watered occasionally, especially if the weather is dry. Generally, wildflower seed mixes contain mostly annual and perennial species that bloom the first year from seed, so you can expect a glorious display next spring or early summer. Allow the wildflowers to complete their life cycles and drop seeds before the area is mowed down.

It's Time to Divide Louisiana Irises

Louisiana irises are at their most dormant stage in the late summer, making September and early October the ideal time to divide them.

To divide your irises, dig up a clump using a shovel or turning fork. Be careful not to damage the rhizomes. Break or cut off the young rhizomes, which have green growth at their tips, from the large old rhizomes. Discard the old rhizomes and replant the young rhizomes.

Before replanting, take the opportunity to improve the bed by digging a 2- to 4-inch layer of compost or other organic matter into the bed along with an application of 15-5-10 fertilizer or anything similar. While you are doing this, do not allow the roots of the plants taken out of the bed to dry out. Put them in buckets of water or wet them down and cover them with plastic.

Plant the rhizomes horizontally about 8 to 12 inches apart, with the fan of foliage facing the direction you want the plant to grow. Carefully cover all of the roots. The top of the rhizome should show above the soil surface. Mulch the bed about 3 inches deep and water thoroughly.

This also is a good time to divide other perennials that start active growth during the fall and grow over the winter, such as Easter lilies, calla lilies and acanthus.

Cool-season Bedding Plants for Fall Planting



Many bedding plants prefer to grow during the lower temperatures of Louisiana's winter and tolerate freezes that occasionally occur. These plants provide color during the season that runs from October/November to April/May.

Low-growing flowers generally grow to about 4 to 8 inches and should be planted in the front of beds. They include sweet alyssum, lobelia*, diascia*, nemesia*, pansy, Johnny-jump-up, viola, primrose, cyclamen*, petunia* and dwarf stock.

Medium-height plants that reach 8 to 15 inches include dwarf snapdragons, dwarf toadflax, candytuft, calendula, annual phlox, bluebonnet, dianthus, sweet William, ornamental kale and cabbage and California poppy.

Cool-season bedding plants that grow 15 inches or taller include Iceland poppy, Shirley poppy, peony-flowered poppy, toadflax*, stock*, nicotiana*, snapdragons, statice, larkspur, delphinium, hollyhock and sweet peas.

*These plants are more reliably hardy in South Louisiana.

Watch for Cool-season Insects

Louisiana's relatively mild winters allow us to have blooming flower gardens from fall through spring. We also have lots of evergreen trees and shrubs that retain their foliage through the winter and some of those even bloom merrily despite whatever cold we have.

Unfortunately, many insects are active during the cool season, as well. Caterpillars chew holes in the leaves of bedding plants. Treat with a Bt (*Bacillus thuringiensis*) insecticide as needed. This naturally occurring bacterium only attacks and kills caterpillars and is very environmentally friendly.

Snails and slugs are not insects but they also are active during mild, wet winter weather and chew holes in leaves. Use a lower-toxicity bait that contains iron phosphate regularly when they are a problem.

Scales commonly are seen on woody plants like trees and shrubs and feed on the sap. Horticultural oil sprays are a good low-toxicity insecticide. They kill scale insects by coating and suffocating them rather than with toxic chemicals. Make sure you spray plants thoroughly and make two or three applications.

Aphids will show up in multitudes clustered on the new growth and flower buds and under leaves. Light horticultural oils and insecticidal soaps are two low-toxicity options for controlling these sucking insects.

Some Cool-season Bedding Plants Add Fragrance

Lots of cool-season flowers can be planted in the fall. Color always seems to be the dominant factor when selecting these plants, and providing color to the landscape really is these plants' primary function.

But many of these plants also are fragrant. What a delight it is to walk out on a mild winter or spring day and catch the honey fragrance of sweet alyssum drifting in the air.

Fragrant cool-season annuals should be planted where they can best be appreciated. Placing fragrant bedding plants in the immediate area of entrances and outdoor living areas – in beds, containers or even in hanging baskets (no bending over to smell the flowers) – adds immeasurably to our enjoyment of those spaces.

The following plants should be planted into well-prepared beds or containers located in full- to partial-sun locations, although alyssum and nicotiana also will grow well in partial shade.

One of the most outstanding fragrant cool-season annuals is stock (*Matthiola incana*). Depending on the cultivar, stock can range in height from 10 to 30 inches. The shorter types are excellent for bedding or containers, and the taller types are exceptional for cutting.

Sweet alyssum (*Lobularia maritima*) is useful in the cool-season garden for its low, spreading growth habit. It literally covers itself with small flowers in shades of white, pink, rose, lavender or purple. The pleasant fragrance is reminiscent of honey and permeates the air, especially on warm days in enclosed spaces.

Dianthus, or pinks, produces a sweet, spicy fragrance often compared to cloves. Fragrance is highly variable among different types, so smell the flowers at the nursery for at least a light scent.

Nicotiana is related to tobacco and is commonly called flowering tobacco. It produces a rosette of hairy, medium green leaves with taller stems loosely adorned with flaring five-petal bells. As with the dianthus, fragrance varies from one type to another. Nicotiana generally is most fragrant during the evening.

Gardeners often don't appreciate the fragrance of petunias until they first encounter it. Most petunias have a light fragrance if you smell the flowers, but occasionally their perfume fills the air on mild, sunny days.

Finally, you simply could not have a fragrant cool-season flower garden without sweet peas (*Lathyrus odoratus*). This vining annual produces flowers that are good for cutting, come in an astounding array of colors and are as fragrant as they are beautiful. Plant seeds in October or November. Flowering generally begins in March, with the peak occurring in April and ending with the heat of May.

Checklist for
September, October, November

1. Begin preparing beds for fall planting.

2. Take soil samples from landscape beds and submit to the LSU AgCenter Soil Testing Laboratory for analysis. The cost is $10 per sample.

3. Fall is a great time to plant trees. If room is available in your landscape, plant a few native trees. Trees that provide good fall color in Louisiana include bald cypress, Nuttall oak, Shumard oak, cherry bark oak, flowering pear, Chinese pistachio, ginkgo, Japanese maple, sweet gum, sumac and hickory.

4. Plant spring-flowering bulbs in your gardens from late October through early December. Exceptions are tulips and hyacinths, which must be refrigerated and planted in late December or early January.

5. Garden mums make a great addition for fall color. Check your local retail garden center for availability.

6. Watch azalea plantings for early fall infestations of lace bugs. Control with Orthene, horticultural oil sprays (bifenthrin, cyfluthrin or permethrin) and other recommended insecticides.

7. Build a compost pile out of leaves, grass clippings and remains from your vegetable garden.

8. Divide Louisiana irises in September.

9. Many of the summer-blooming perennials are finished or finishing up their floral display for the year. Cut back the flower stalks and old, faded flowers to keep the plants looking attractive.

10. October weather can be dry. Water plantings, as needed. Pay special attention to any newly planted areas. It generally is best to water direct-seeded beds of flowers or vegetables lightly every day to make sure the seeds do not dry out.

11. Prune everblooming roses by early September.

12. Fall is an excellent time to plant many herbs in the garden. A few herb plants provide a lot of harvest, so don't plant more than you can use. Herbs to plant now include parsley, sage, thyme, dill, cilantro, rosemary, oregano, borage, fennel, nasturtium, French tarragon, chives, mint and catnip.



Fruit

Citrus Canker Disease Found in Louisiana

Citrus is grown primarily in south Louisiana, but you will find backyard citrus trees even in the northern part of the state (usually hardier types like satsuma).

Citrus canker is a bacterial disease that originated in Southeast Asia and has spread to citrus-growing areas in several countries. It has not been seen in Louisiana since the 1940s but was found in New Orleans on June 21, 2013, by a U.S. Department of Agriculture employee familiar with this disease.

Citrus canker symptoms include brown spots on leaves, often with an oily or water-soaked appearance. The spots (technically called lesions) usually are surrounded by a yellow halo and can be seen on both the upper and lower sides of the leaf. Similar symptoms can appear on fruit. Even stems can have symptoms, with brown bumps or lesions.

The disease causes citrus trees to prematurely drop leaves and fruit and it can cause dieback of twigs and branches. With time, trees quit producing fruit and decline in health. It can affect every type of citrus we grow.

The bacterium responsible for the disease is spread from infected trees to healthy trees by wind-driven rain or contaminated tools, clothing and equipment. It enters trees through natural openings or wounds. It can move long distances on equipment, in large storms such as hurricanes and by the movement of infected citrus materials. It is not transmitted by insects.

There is no effective treatment for infected trees. They must be removed.



Canker lesions on young twig of a sweet orange tree.



Citrus leafminer injury to a sweet orange.

Check Your Trees!

Home gardeners, particularly those in the New Orleans area, need to check their citrus trees for citrus canker symptoms. Home gardeners throughout the state also should be aware of this disease and the symptoms it causes.

If you see symptoms that match those of citrus canker, DO NOT remove or destroy the tree yourself. DO NOT take samples to area nurseries or LSU AgCenter Extension Service offices for diagnosis. Report trees suspected to be infected with citrus canker to the Louisiana Department of Agriculture at 225-952-8100 or the U.S. Department of Agriculture's state plant health director Bill Spitzer at 225-298-5410. You also can email photos to Spitzer at william.e.spitzer@aphis.usda.gov. Then follow the directions you are given.

Dan Gill
Consumer Horticulturist



Lesions are visible on both sides of the leaves with water-soaked margins surrounded by a yellow halo. This is the top side of the leaf. Photos by Raj Singh

Plums

Plums can be divided into three types: European (including the Damson), Japanese and indigenous American species.

Plums are related to peaches, and the production practices for these two fruits are very similar. There is one major difference between the two, however. While peaches are self-fruitful, many plums are self-unfruitful. Plums need to be pollinated by another variety of the same type of plum. For example, two varieties of European plums can cross-pollinate, but European plums cannot cross-pollinate with Japanese varieties.

Planting

Plums should be planted 18 to 22 feet apart. They will grow in a wide variety of soil types but prefer deep, well-drained soils ranging in texture from a sandy loam to a sandy clay loam. Avoid areas where root-knot nematodes have been a problem.

During the fall prior to planting, prepare the area by soil testing and incorporating lime, as needed, to achieve a soil pH between 6.0 and 6.5. Plant during the fall or as early as possible during the winter to allow plants to become established before the stress of summer.

Do not place fertilizer in the planting hole. It is best to wait several weeks after planting to fertilize.

Fertilization

Fertilize newly planted plum trees in early spring before leaves appear. Broadcast one cup of 10-10-10 fertilizer over an area 3 feet in diameter. Apply additional nitrogen in mid-May and mid-July by applying a half-cup of a fertilizer containing a high percentage of nitrogen evenly over an area 2 feet in diameter.

Beginning the second year, fertilize the trees twice a year. Make the first application in early March and the second around the first of August. Use these rules of thumb for the two fertilizer applications:

March application – Apply 1 cup of 10-10-10 for each year of tree age until you reach a maximum of 10 cups for mature trees.

August application – Apply 1 cup of high nitrogen fertilizer per tree per year of tree age until you reach a maximum of 5 cups for mature trees.

Always broadcast the fertilizer in a circle at least as large as the circle



created by the limbs of the tree. Be careful not to concentrate the fertilizer near the trunk of the tree.

Pruning

Plums are dormant-pruned slightly differently than peaches.

Use thinning cuts that leave outward-growing branches to spread the plum's upright tree form so sunlight can penetrate the inner canopy and enhance fruit spur production. After the first growing season, heading cuts should be avoided. Begin dormant pruning after Feb. 1 to reduce bacterial canker infection.

Problems

Pest problems are similar to pest problems on peaches.

Brown rot is the most common disease. Fungicides labeled for brown rot control on peaches can safely be used on plums.

Plums also can be troubled with a disease known as black knot. This is a warty looking growth on the limbs. Prune off and destroy all affected limbs.

Plums also are susceptible to bacterial canker infection, which can be reduced by using selected rootstocks.

Insect problems include plum curculio, which causes wormy fruit, and peach tree borer, which attacks the tree at the soil line. Read and follow all label directions when using any pesticide.

Varieties

Many varieties of plums are available. Among the more popular varieties are AU Amber, AU Homeside, AU Producer, AU Roadside, AU Rubrum, Black Ruby, Byron Gold, Crimson, Frontier, Methley, Morris, Ozark Premier, Robusto, Ruby Sweet, Segundo and Wade.

Plum varieties usually are budded to peach rootstocks such as Nemaguard or Guardian rootstocks that are resistant to root-knot nematodes, or Lovell, Halford or Guardian rootstocks that help reduce bacterial canker infection.

As a rule of thumb, plums are not self-fruitful. They need to be pollinated from a different variety that blooms at the same time. Exceptions, however, are A.U. Amber and Methley because they are partially self-fruitful. They can be planted as single trees with the understanding that production may be light some years. Fruit set of these cultivars will be improved with the addition of other cultivars as pollenizers. Except in years of extremely mild winters, most recommended plum varieties will have sufficient bloom overlap to ensure cross-pollination.

Harvest

Plums are productive and may yield 2 to 3 bushels per tree. As the fruit ripens, it develops a powdery surface color. You may prefer to pick the Japanese varieties a few days before they are fully ripe and allow them to ripen in a cool room.

Plums can be eaten fresh or used in baked goods. They have a relatively long storage life if refrigerated. Plums may be preserved in a number of ways – such as jellies, jams and juices.

David Himelrick, Ph.D.
LSU AgCenter Extension Fruit Specialist

Vegetable Gardening

Vegetables to Plant

September

Beets, broccoli (transplants or seeds through September), Brussels sprouts (transplants or seeds), cabbage (transplants or seeds), Chinese cabbage (transplants or seeds), cauliflower (transplants or seeds), collards (transplants or seeds), endive, carrots, English peas, snow peas, garlic (late September), kohlrabi, lettuce, mustard, onions (seeds, late September), parsley, snap beans (early September), radishes, rutabaga, shallots, spinach, Swiss chard, turnips and kale.

October

Cabbage, broccoli (transplants), mustard*, turnips, collards, kale, parsley, shallots, radishes, beets, spinach*, leaf lettuce, Chinese cabbage*, celery, onions, Swiss chard, garlic, carrots and endive*.

November...

Beets*, shallots, garlic*, Swiss chard, spinach, kale, radishes, mustard, carrots and turnips.

*Plant during the first part of the month.



Fall is here, and even though it may not feel like it, this warm weather will pass. Soon we will begin to enjoy all of our favorite fall vegetables.

Spring crops should be removed from the garden in August to make way for soil preparation and planting in September. If you haven't done so already, wait until it's almost dark, go out to the garden and start yanking! As joking as that might sound, it's good advice. Please save all mechanical cultivation (weeding, tilling, plant removal, etc.) for the early evening when temperatures decrease – especially since old plant and weed removal are just the first step in garden preparation.

You'll also need to have your soil tested (if you haven't done so for the past two to three years) and then add the appropriate amounts of fertilizer and pH correcting materials (lime or sulfur) prior to planting.

Also, determine how you will irrigate your crops. Do you have a hose that doesn't leak or a water wand – or are you setting up drip irrigation? Make sure you have a plan for irrigation before you plant.

After that, many of our fall crops are direct-seeded and a few transplanted. Planting is the fun part, so get out there and enjoy!

Crop Highlights

Onions (Bulbing). Onion seeds may be planted for transplants from mid-September until mid-October. Keep the soil moist, because seed coats are hard. It may take two weeks for onion seeds to germinate to a stand. Onions can be transplanted into the garden from mid-December through January. You also may sow directly in the row where they will mature in October. Onion transplants that are the width of fine hair actually are better than stocky transplants the size of a pencil. They tend to bolt less!

Short-day varieties to plant:

- Red: Red Creole C5 or Red Burgundy.
- White: Super Star Hybrid (All-America Selections), Candy (golden) or Georgia Boy.
- Yellow: Granex 33, Texas Grano 1015Y, Nirvana, Savannah Sweet or Sweet Melody.

Fertilize plants sparingly prior to planting in the ground. This will prevent excessive growth, premature seed stalk development and bolting. About 2 to 3 pounds of 0-20-20, 7-21-21 or 8-24-24 per 100 feet of row are sufficient. Side-dress onions during the spring just before they bulb. Side-dress two additional times at two- to three-week intervals. (Follow the same schedule for bulbing shallots.)

Green Shallots. Shallot sets can be planted any time during the fall or winter. Replant bulbs as you harvest by separating plants and transplanting some of them again. By doing this, you'll have shallots throughout the spring. The largest shallot bulbs for sets are made by transplanting from mid-November to December.

Garlic. Separate garlic bulbs into individual cloves during October. Tahiti and elephant garlic are the largest and mildest of the recommended garlic varieties. The Italian and Creole varieties are smaller and stronger.

Check the Louisiana Department of Agriculture and Forestry Market Bulletin's website (http://www.ldaf.state.la.us/portal/News/MarketBulletinCurrent/tabid/165/Default.aspx) for possible sources of sets.

Plant cloves about 1 inch deep and 4 to 6 inches apart in the row. Several drills may be planted on one row. Allow 6 to 8 inches between drills. Fertilize before planting with 4 to 5 pounds of 8-24-24 per 100 feet of row. Side-dress with nitrogen after garlic is up and again in February and March just before the bulbs swell.

Lettuce. September is the best month to plant lettuce. Head and semi-head lettuce should be planted so it is harvested before a hard frost. Plant heading varieties 12 inches apart in the row. They may be double-drilled. Side-dress lettuce three to four weeks after transplanting and repeat two to three weeks later.

Recommended lettuce varieties include:

- Semi-head: Green Forest, Green Towers, Buttercrunch (All-America Selections), Oak Leaf or Parris.
- Leaf: Simpson Elite, Red Fire, Red Salad Bowl, Nevada or Sierra.
- Head: Great Lakes, Ithaca or Maverick.

Lettuce seeds should be lightly covered for best germination but some varieties require sunlight, so read the seed packet!

For endive or escarole, choose Ruffle, Salad King or Full Heart.

Greens. Keep the soil moist. Avoid thick plantings of greens. A 3- to 4-inch spacing between plants is recommended. For weed control, Treflan can be incorporated before planting. Double drills may be planted on one row, allowing 10 to 12 inches between drills.

For good collards, plant Blue Max, Champion, Top Bunch or Top Pick.

Broccoli and Cauliflower. Transplant in September. Space cauliflower 12 to 18 inches apart and broccoli 9 to 12 inches apart.

Both shallow-rooted crops respond to fairly high rates of fertilizer, 4 to 6 pounds of 8-8-8 or 3 to 4 pounds of 8-24-24 per 100 feet of row. Side-dress with about a pint of ammonium nitrate per 100 feet of row about two to four weeks after transplanting. Side-dress again at two-week intervals two to three more times. This will increase yield.

Recommended broccoli varieties include Packman, Windsor, Diplomat, Patron and Gypsy. Recommended early cauliflower hybrids are Snow Crown (All-America Selections), Majestic, Freedom, Cumberland, Candid Charm and White Rock.

Cabbage. Recommended varieties for fall and winter production are Bravo, Rio Verde, Silver Dynasty, Thunderhead, Emblem, Blue Vantage, Cheers and Vantage Point.

Chinese Cabbage. Chinese cabbage is an excellent crop for fall gardens. Seeds are planted in September. Solid heads form 55 to 60 days after seeding.

English Peas and Snow Peas. Plant English peas, snow peas and other peas with edible pods during September. The key to success is to plant early enough so they bloom before frost and late enough so they aren't blooming when temperatures are too high.

Space peas 1 to 2 inches apart. About 2 to 4 ounces of seeds will plant a 100-foot row. Between 70 and 80 days are required from planting until harvest. Staking or trellising peas, even the bush types, will help to increase the chances of success.



Spinach. Spinach requires a cool, fertile, well-drained soil with a pH of 6 to 7. Wait until temperatures cool before planting, for best germination.

Apply 4 to 5 pounds of a complete fertilizer per 100 feet of row about two weeks before planting. Side-dress spinach with 1 pound of ammonium nitrate per 100 feet of row. Start side-dressing about one month after seeding. This will keep it growing quickly, making it tender and improving quality. An additional side-dressing after harvest will improve yields on second cuttings.

Plant seeds about a half-inch deep and thin plants to 1 to 3 inches apart in the row. Since seeds are slow to germinate, be sure to keep soil moist. Double drills may be planted on one row. Allow 8 to 12 inches between drills.

Suggested varieties are Melody, Smooth-Ballet and Tiger Cat.

Pumpkins and Winter Squash. Harvest pumpkins and winter squash after they have developed a hard rind and are the appropriate color for their varieties. If the rind cannot be easily penetrated by the thumbnail, the fruit is mature. Leave about 3 inches of stem attached to the fruit. If stored in a cool, dry place (off the ground and floor, if possible), these cucurbits will keep well for several months.

Carrots. Start directly seeding carrots during September and continue to plant throughout the fall season. Form high, well-drained rows. Thin seedlings to about 2 inches apart.

Choose Danvers 126, Thumbelina and Purple Haze (All-America Selections). For sandy soils, use Apache, Choctaw, Big Sur, Maverick or Navaho. If you have heavy clay soils, simply cover the seeds with a loose potting mix. Clay soils tend to form a crust and prevent the seeds from emerging.

Beets. Directly seed beets from the fall through the winter. Choose Ruby Queen, Scarlet Supreme, Chariot or Solo.

Kathryn Fontenot, Ph.D.
LSU AgCenter Extension Vegetable Specialist

LouEASYana GARDENING

Broccoli 'Raab' Exquisitely Easy

Have you ever eaten at an elegant restaurant and noticed a small thin stem of broccoli to the side of your plate? This delicious and tender vegetable is a type of broccoli called Broccoli 'Raab.'

Isn't it funny how some of the more trendy foods were once considered peasant food? Take oysters and lobster, for instance. Once eaten strictly by the poor, oysters and lobster now are some of the more expensive items on the menu.

Broccoli 'Raab' also was considered a food for Italian peasants but it is now found in fine-dining restaurants. The foliage and stems and flower stalk can be sautéed with garlic, used fresh in a salad or steamed. The opened flower buds also can be consumed. Flower heads are like tiny broccoli and usually are 1 to 1 ½ inches in diameter, and stems are cut anywhere from 5 to 10 inches in length.

Broccoli 'Raab' grows very well in Louisiana throughout the fall season. If you've had trouble growing standard broccoli, you'll be pleasantly surprised with how easy this plant is to grow.

Start looking for seeds now so you can plant in September. You'll want to make sure and purchase fall Broccoli 'Raab' varieties.

Broccoli 'Raab' will yield best in full sun and planted in well-drained soils with a pH between 6-7.5. If only the foliage is of interest to you, space plants 3 inches apart as you would for other greens. Harvest foliage between 4 and 8 inches tall. If you are like me, however, and like the heads, space the plants 12 inches apart because they can become quite big before they begin to produce heads.

As soon as you start to see heads (usually within 45-50 days), start harvesting. Broccoli 'Raab' grows similar to okra – very fast. Harvest every other day to prevent heads from going to seed. If you forget and the plants flower, remember the flowers are edible and also a make a lovely yellow display!

Kathryn Fontenot, Ph.D.
LSU AgCenter Extension Vegetable Specialist

Lawns

Fall Lawns in Louisiana

Should You Fertilize Lawn During Fall?

Louisiana usually stays warm well into the fall, and lawns continue to grow until nighttime temperatures dip into the 50s. So be sure to mow and water your lawn, as needed, to keep it healthy.

More than likely, however, it is time to put up your fertilizer spreader. Fertilizing warm-season grasses during the fall with high nitrogen (summer-type) fertilizers or winterizing fertilizers containing nitrogen are not recommended for Deep South lawns.

Stimulating fall growth of St. Augustine, centipede and zoysia grasses with nitrogen leads to increased brown patch disease and winter kill. Bermuda grass may be fertilized into September, but I would not make any more applications of nitrogen-containing fertilizers after late August on St. Augustine, centipede and zoysia.

If you would like to extend the green color in home lawns this fall, apply foliar iron spray or spreadable iron granules. This will give you a nice flush of green color without increased growth.

The only other fertilizer that could be applied during the fall is muriate of potash. Muriate of potash (0-0-60) is the true winterizing fertilizer and it may be applied in September or October to provide increased disease resistance and cold tolerance. Most garden centers and feed stores have some form of potash. Get a soil test before applying potash to your soil, however, since there is no advantage to applying excessive amounts.

Speaking of Soil Tests…

Fall is the best time of the year to get your soil tested by the LSU AgCenter Soil Testing Lab.

Soil testing really is the first step to a beautiful lawn next spring and is the best way to determine exactly what your lawn needs to become thick and healthy. If you haven't tested your soil in the past several years, do it now.

To test your soil, submit a pint of soil to the LSU AgCenter Extension Service office in your parish. The pint should be a composite of soil samples collected from several different areas in the lawn. You only need to go about 4 inches deep. Also, to simplify the soil sampling and submission process, there are new pre-addressed submission boxes with sampling instructions at several garden centers throughout the state.

The sample results will be sent to your home mailbox and/or email in about two weeks. An LSU AgCenter extension agent can help you interpret the results from the soil sample. Sample results may indicate lime is needed to increase soil pH. If so, fall/winter is a good time to apply lime, since it takes several months to activate in the soil. Elemental sulfur may be recommended to reduce soil pH in alkaline soils.

Lawn Weed Management

Granular pre-emergence herbicides can help manage winter weeds if applied prior to weed germination. These are the same herbicides used for pre-emergence crabgrass control that are applied in late winter and early spring.

Pre-emergence herbicides containing pendimethalin (Scotts Halts), dithiopyr, (Hi-Yield Weed Stopper) and benefin plus trifluralin (Green Light Crabgrass Preventer) provide good control of annual bluegrass, common chickweed and various other winter annuals prior to their emergence. Isoxaben (Green Light Portrait) provides good control of winter annual broadleaves. Isoxaben has no activity on germinating grasses, however, so consider applying one of the previously mentioned herbicides on the same lawn for a complete broad-spectrum, pre-emergence weed control program.

Pre-emergence herbicides should be applied during mid- to late September and reapplied by mid-November. Water the herbicides into the lawn or apply just prior to rainfall. Make sure you use pre-emergence herbicides that do not contain nitrogen fertilizer because of potential for increased occurrence of brown patch disease.

Atrazine may be applied to St. Augustine, centipede and zoysia grasses for broad-spectrum winter weed control from late October through December. This herbicide is the most effective broad-spectrum winter weed herbicide available to homeowners. Atrazine kills emerged winter broadleaves and grasses and is very effective on annual bluegrass, clover and lawn burweed (sticker weed).

Fall Is Brown Patch Disease Season

Brown patch disease starts to appear in lawns as nighttime temperatures cool down below 70 degrees Fahrenheit.



This fungal disease is very common in St. Augustine, centipede and zoysia grasses. The disease appears as circular browned-out areas in various locations of the lawn.

Unfortunately, brown patch disease can come and go all winter if weather is mild and lawns don't go dormant. Treating lawns with fungicides labeled for brown patch will minimize the damage caused by the disease. Two to three preventive applications usually work best when applied a couple of weeks apart starting in mid- to late September. Look for fungicides containing active ingredients such as azoxystrobin, propiconazole, thiophanate, triadimefon or myclobutanil.

Ron Strahan
Weed Scientist/Turfgrass Specialist



Miscellaneous

Scientists Studying Plants' Ability to Treat Wastewater

Plants can function as natural buffers between uplands and adjacent water bodies and serve as natural filters of pollutants such as sediment, nutrients, pathogens, metals, and suspended solids, which also are the leading causes of impairment to our nation's water bodies.

Scientists with the LSU AgCenter are conducting research and demonstration projects to study the effectiveness of plant systems to treat wastewater. Studies are being conducted using floating or hydroponic cultivation of plants in wastewater systems, including treating human sewage.

Hydroponic plant remediation of wastewater is not a new concept, but earlier developed treatments had some environmental problems. Invasive species such as water hyacinth were studied extensively and their potential demonstrated. But the invasive nature of these plants made the adoption of these practices impractical in warm climates. Ecologically sound, cost-effective and innovative techniques are desperately needed to address these issues for both agricultural and urban development.

A new and technologically innovative alternative is artificial floating wetlands. This concept is being investigated by LSU AgCenter scientists and a Baton Rouge ecosystem restoration company. The concept mimics natural floating wetlands and marshes, which, although not a common ecosystem, are found in Louisiana and around the world. These systems are being investigated, developed and evaluated to provide a living mechanism to improve water quality.

Some preliminary studies are being conducted at the LSU Dairy Station and at a Louisiana prison facility for evaluation of the best plant species and their effectiveness in treating wastewater. These treatments involve using various plant species planted in a matrix of recycled plastic infused with flotation material.

The matrix is a BioHaven® Floating Island, which is a manmade product manufactured in the United States from recycled plastic created by bonding together layers of nonwoven plastic matrix with inert marine foam. The foam provides adhesion of the matrix layers and also adds buoyancy. The matrix layers are made from 100 percent polyester fibers obtained from recycled PET plastic, and the top layer of matrix is treated to protect it from ultraviolet light.

A soil mixture composed of peat moss and a compost mix is placed on the surface of the floating wetland matrix and along with the plants in the wicking channels. Plant roots grow through the floating wetland and into the water column below. As water passes through the network of hanging roots underneath the floating matrix, nutrients and pollutants in the water are removed by the plant roots. The roots provide a biological haven for the development of biofilms that contain communities of micro-organisms that aid in various treatment processes.

These same nutrients provide the food sources the plants need for growth. The result is that these floating systems create a concentrated wetland effect due to the massive surface area of the roots growing through the water column and the matrix the plants are grown within. This same principal is fundamental to the concept of hydroponics used by NASA and in high-tech agricultural production.

Consequently, floating wetlands may be capable of achieving a higher level of treatment per unit surface area compared to conventional wetlands. Floating wetlands also have several other advantages, including their ability to tolerate fluctuations in water levels that could adversely stress bottom-rooted plants; more effective use of wetland volume, resulting in greater residence/particle settling time; large sediment storage capacity, which can be easily dredged without damage to the plant system; self-renewing root systems that intercept, absorb and then slough heavy particles; aesthetic and wildlife value; and modular configuration that allows the number of floating to be easily increased to improve performance or expand the size of the treatment system.

Brian LeBlanc
W. A. Callegari Environmental Center



School of Plant, Environmental and Soil Sciences
Horticulture Division
155 J. C. Miller Hall - LSU
110 LSU Union Square
Baton Rouge, Louisiana 70803

Horticulture Hints



Fall 2013

Visit our LSU AgCenter Store
www.lsuagcenter.com/OnlineStore

Prepared quarterly by:

Kathryn Fontenot, Ph.D., Community/School Vegetable Gardens
Dan Gill, Consumer Horticulture
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.

School of Plant, Environmental and Soil Sciences
155 J. C. Miller Hall - LSU, 110 LSU Union Square, Baton Rouge, Louisiana 70803
(225)578-2222; Fax: (225)578-1068
The LSU Agricultural Center is a statewide campus of the LSU System and provides equal opportunities in programs and employment.