

Horticulture Hints



Summer
2012

Landscape Gardening and Ornamentals

Roses In Summer

Although they grow well in our climate, roses are not particularly happy during the intense heat of a Louisiana summer. Proper care is important as roses enter this most stressful time of the year.

Pruning

Repeat-blooming roses should not be pruned hard during the summer. The next major pruning of ever-blooming roses will be in late August. Pruning then will stimulate abundant new growth for the outstanding fall blooming season.

You can manage the size of a rose bush to some degree during the summer by pruning off faded flowers with longer stems (dead-heading). Cut back to the second or third five-leaflet leaf below the flower or flower cluster.

Weeds

Keep beds well mulched to minimize weeds. For growing weeds, hand weed or spray them with glyphosate (KillzAll, Eraser, Grass and Weed Killer, Roundup). It is critical that none of the spray or drift contacts the foliage or stems of the roses. Spray on a calm day. It's a good idea to place a barrier between a rose bush and the weeds you are spraying.

Watering

The intense heat this time of year can dry out beds surprisingly fast. Roses planted this year need a regular deep watering whenever we go about a week without a good rain (a "good rain" means receiving a half-inch to an inch of rain; do not count brief rain showers).

Established roses are remarkably drought tolerant and generally do not require a great deal of supplemental irrigation. During exceptionally dry periods, however, when rain has not fallen for two weeks or more, you may water roses in the landscape deeply once a week, as needed. The major problems we've seen with Knock Out roses often are associated with excessive irrigation.

Use an irrigation method that avoids wetting the foliage. If you must wet the foliage, irrigate during the morning or when the foliage will dry rapidly to reduce disease problems.

Fertilizing

Roses generally do not grow as well, bloom as well or look as attractive during the intense heat of mid- to late summer. Many gardeners interpret the lower vigor and poor quality flowers to mean the roses need more fertilizer. Heat is the issue, however, and roses actually need less fertilizer in late June, July and early August. Use only moderate fertilization, if you do any at all. The next best time to fertilize roses will be in late August when they are pruned.

Pest Control

For roses highly susceptible to black spot, a weekly spray program is important throughout the summer months. Fungicides labeled to control black spot must be used regularly. This is not a disease you can spray for on an as-needed basis. Be sure to follow the fungicide's label recommendations carefully.



Hydrangea Flower Color

The common big-leaf or mop-head hydrangea is known for its flower colors, which can be changed from pink to blue or blue to pink by adjusting soil acidity (pH).

The color variation is caused by the presence or absence of aluminum compounds in the flowers. If aluminum is present in the plant, the flower color will be blue. If present in small quantities, the color will be in between (violet), and if aluminum is absent, the flower color will be pink.

Soil pH indirectly affects flower color by affecting the availability of aluminum in the soil. When the pH is acid (pH 5.5 or lower), aluminum generally is more available to the roots. When the soil pH is neutral to alkaline (7.0 or higher), aluminum levels are decreased.

To gradually change flower color of hydrangeas from pink to blue, broadcast 1/2 cup of sulfur per 10 square feet of bed area under the hydrangeas and water it into the soil. To make pink flowers, broadcast 1 cup of dolomitic lime per 10 square feet of bed area and water it into the soil. Granular products can be applied anytime during the year. It takes patience to change hydrangea flower color, however. It may be a year before you begin noticing a color change.

A quicker way to force flower color change is through liquid soil drenches applied in March, April and May. To make flowers bluer, dissolve 1 tablespoon of aluminum sulfate in 1 gallon of water. To make flowers pinker, dissolve 1 tablespoon of hydrated lime in 1 gallon of water. Drench the soil around the plant with the solution. Avoid getting the aluminum sulfate or hydrated lime solution on the plant's foliage.

*Bob Souvestre
County Agent, East Baton Rouge Parish*



A Matter Of Control

When you think about it, gardening in the summer landscape is largely about control. We have to control the lawn by mowing regularly. We have to control weeds by hand pulling, hoeing or herbicides. We have to control outbreaks of insects and diseases, as needed. And we have to control the size and shape of enthusiastically growing plants in our landscape by pruning. So you see control pretty much sums up where most of your gardening time goes during the summer?

Weeds

You should not allow weed problems to get way out of hand before dealing with them this time of year. Beds that are well maintained, where weeds are promptly and properly dealt with, are easier to maintain and keep weed free over time. By never allowing weeds to get the upper hand, you limit production of weed seeds, rhizomes and bulbs, and, in doing so, reduce future problems. Beds where weeds are allowed to run wild before a gardener decides it is time to step in will continue to have major weed problems, and they may actually get worse despite the gardener's occasional efforts.

Stay on top of weed control, but minimize the amount of hand weeding needed by keeping all of your beds well mulched. Make sure you mulch beds of flowers and vegetables 2 inches thick – and 2 or 3 inches thick around larger shrubs. If you use mulch around trees, it should be about 4-6 inches thick.

Pruning

To reduce summer pruning chores, always make sure you know the mature size of every tree and shrub you plant in your landscape before you plant it. Fighting with shrubs that grow too large for their location summer after summer for the rest of your life is not necessary.

If you plant a shrub that will grow larger than desired, prune it promptly when it reaches the preferred size. Don't allow a shrub to become really over grown and then cut it back hard. If you let a shrub get over grown, the root system enlarges to accommodate the large shrub. When you cut it back, the large root system will cause the shrub to produce rampant new growth and rapidly get too big again. Keeping a shrub the right size limits the size of the root system and makes it much easier to maintain the desired height and width.

You also need to control yourself. Control the time you spend outside. Don't get out and try to do too much or work for too long in the debilitating heat. Try to do a little every day when it is cooler and stay on top of things. But do what you need to do and be timely about it. Self-control also means making yourself get out of that nice air-conditioned house and into the yard.

'Shroom Boom

Saprophytic fungi are beneficial organisms that help dead organic matter decay. They contribute to healthy soil and gardens. Saprophytic fungi are always present in our lawns and gardens, quietly decaying organic matter. We just don't usually see them (although you may occasionally see the white threads of saprophytes when you move decaying mulch or compost). But, after a generous

period of rainfall during summer, many of these fungi make their presence known by sending up mushrooms, lots and lots of mushrooms.

It's important to understand that the mushroom is not the fungus. It is simply a growth from an organism living in the soil and the layer of organic matter on the surface. Mushrooms are the reproductive structures (called "fruiting bodies") of certain fungal organisms. Their role is to produce spores and release them. You can kind of think of them like flowers.

A rose flower is produced by the rose bush. You can pick a flower from a rose bush, but the bush is still there and will produce more flowers. Just like that, you can remove the mushrooms you see, but the organisms producing them are still there. Simply removing the mushrooms does not keep them from coming back.

These fungi and the mushrooms they produce are not harmful to your lawn or other plants in your yard, and there is no need for concern in that regard. It is remotely possible some of the mushrooms may be poisonous. In cases where pets or small children may have a chance to consume them, they should be promptly removed when they appear. For everyone else, ignore them or mow them down.

There are no practical treatments to kill off the fungi that produce the mushrooms. The fungicides available for controlling pathogenic fungi that attack our plants will not be effective, so you simply waste money and time if you use them.

Where you see mushrooms growing relates to the amount of organic matter available to the fungi and where, by chance, spores land and grow. So you do see variation from yard to yard and area to area in the same yard.

As you encounter mushrooms in your lawn and gardens over time, remember they generally are harmless and can be ignored (again, watch young children and pets). They are a nuisance, not a catastrophe.

Hey Sucker

One of P. T. Barnum's most well known quotes is, "There's a sucker born every minute." Of course, he wasn't talking about plants, but that famous saying certainly applies to some very popular trees in our landscapes.

Suckers are shoots that grow up from the base of the trunk or the roots near the base of a tree. They are a problem because trees that produce suckers look messy and less attractive if the suckers are allowed to grow. Eventually, the tree may look more like a big shrub. Commonly grown landscape trees that tend to produce suckers include crape myrtle, wax myrtle, river birch, vitex, yaupon holly and deciduous holly, among others.

The best way to deal with suckers is to remove them promptly and properly. Do not allow suckers to grow more than 6 to 12 inches tall before you remove them. It is critical for you to cut them off at their point of origin at the trunk or even below ground. Do not leave a stub. Every stub will sprout multiple suckers.

If you find that a tree produces suckers constantly and that keeping the suckers under control by pruning is a problem, you might try a sprout inhibitor. These products are applied to the base of the trunk after the suckers have all been removed, and they inhibit the growth of new suckers for a year or more. Monterey Sucker Stopper is a ready-to-use product available at nurseries and garden centers (and on the Internet, if you cannot find it locally). You also can use another brand of sprout inhibitor you find locally if that one is not available.

Give Pots A Lift

Most gardeners use containers full of plants on porches, patios and decks. When these pots are allowed to sit right on the surface, they can cause it to become discolored or stained. In the case of a wooden deck, the moisture trapped under the pot also can lead to decay.

When pots are allowed to sit directly on gravel or soil or even brick set in sand, plants can send roots through the drainage holes and down into the soil. If you don't realize this has happened, you may find a large root system has grown down into the ground when you try to move the plant. This is a bad situation because the roots in the ground have to be cut off to pick up the pot, and the plant will not like that one bit.



To eliminate both of these problems, boost your pots up off the surface they are sitting on. This can be accomplished with pieces of brick or stone. You also can purchase "pot feet" at your local nursery. These can be utilitarian, elegant or even fanciful, and you can pick out what suits your taste and situation.

Summer Solstice

The summer solstice this year is June 20. This is the day when we have the longest period of light and shortest period of dark than any other day this year. Since the spring equinox on March 20 (when we had about 12 hours of light and 12 hours of dark), the days have been getting longer and longer. Now, as we pass the summer solstice, the days will begin to get shorter and the nights longer.

The different night lengths through the year, shorter in the summer and longer in the winter, are important to gardeners. Many plants measure the hours of uninterrupted darkness in a day and respond to it. These plants are called photoperiodic. Some plants bloom only when the nights are short (called long day plants). These include summer and late spring flowering plants like black-eyed Susans, coneflower, lettuce and spinach. Other plants bloom when the nights are long (called short day plants) and include fall and winter blooming plants like chrysanthemums, poinsettias and Christmas cactuses. The lengthening nights of fall tell deciduous trees it's time to prepare for winter and drop their leaves.

By manipulating the number of hours of darkness they are exposed to in greenhouses, growers are able to induce plants like chrysanthemums to bloom year-round as potted plants or cut flowers. By the same method, poinsettias and Easter lilies can be timed perfectly to bloom for the holidays.

Checklist For Summer

1. Control thrips, aphids, cucumber beetles and spider mites on roses by using a recommended insecticide or miticide. Also continue blackspot control for highly susceptible varieties by using a recommended fungicide at seven- to 10-day intervals.
2. When irrigating, water the soil area thoroughly. Try to irrigate less often, but irrigate well each time. Light, overhead sprinkling is not the best way to water.
3. Continue to plant warm-season bedding plants such as Mexican heather, ornamental peppers, ornamental sweet potatoes, angelonia, coleus, impatiens, periwinkle, cosmos, begonia, pentas, globe amaranth, ageratum, salvia Victoria, marigold, portulaca, blue daze, perennial verbena, purslane, dusty miller, rudbeckia, abelmoschus, narrow-leaf zinnia, Profusion zinnia, wishbone flower, caladium, balsam, gerbera daisy, gaillardia, celosia, lantana, scaevola, melampodium, butterfly weed, shrimp plant, cleome, four o'clock, perilla, hardy hibiscus (mallow), sunflower, salvias and cigar flower.
4. Plant sunflowers in late summer for fall flower arrangements. Flower colors include yellow, orange, red, bronze, white and combinations of these. It usually requires about 60-80 days from sowing seed until first flower color.
5. Prune azaleas no later than mid-July. Pruning azaleas after midsummer may remove next season's developing flower buds. This applies to most spring-flowering shrubs as well as hydrangeas and gardenias. Encore azaleas are an exception. They should be pruned immediately after they finish the spring blooming period.
6. In early summer, gardenias may have aphids, whiteflies and the associated black sooty mold. For optimum plant performance, control the insects with acephate, imidacloprid or a summer horticultural oil spray.
7. Camellias and azaleas need care to set a good crop of flower buds for next year. Healthy, vigorous plants will set buds, but weak plants may not. If plants lack vigor, fertilize, provide moisture during stressful periods and control pests. Remember that these acid-loving plants need a pH of 5.5. Submit a soil sample to your parish LSU AgCenter extension agent if you are unsure of your soil situation.
8. Louisiana irises are semidormant in the late summer. Prune off seedpods and yellow or brown foliage to help keep the plants more attractive. You may transplant or divide Louisiana irises beginning in August.
9. Cut faded flowers from flowering annuals and perennials to encourage new growth and flowers. Old blooms and seed heads left on the plants can retard continued flower production.
10. High temperatures and high humidity create a high heat index here in the summer. Adjust your gardening schedule to take advantage of cooler times of the day. With today's concern for sun-related skin cancer, wear a wide brim hat and sunscreen when gardening in the sun. Remember to drink plenty of water.
11. Don't neglect to harvest herbs such as mints, basil, rosemary, lemon balm and Mexican tarragon regularly to keep the plants shapely and under control. Some herbs such as thyme, sage and lavender tolerate heat and rain poorly and may not be doing well now as a result.
12. Fine, silvery webbing appearing on the bark of trees during summer and fall is completely harmless. The webbing is produced by tiny scavenging insects called bark lice. There is no need to spray with insecticides.
13. Prune everblooming roses back about one-third their height in late August or early September. Also remove any dead canes and weak spindly growth. This pruning prepares the roses for the outstanding blooming season in October and November. Do not cut back once-blooming roses, which only bloom in spring and early summer and stop, because that will reduce flowering next year.
14. Small, yellow aphids on your butterfly weed or milkweed (*Asclepias curassavica*) will not damage the plants or affect the feeding of adult and larval monarch butterflies. Do not attempt to control them since that may adversely affect the caterpillars.
15. Summer rains will encourage the growth of weeds right along with the ornamentals in your garden beds. Do not let weeds get out of hand before dealing with the situation.
16. Keep caladiums well watered during hot, dry weather to keep the foliage in good shape through the summer. You may apply a fertilizer now to encourage vigorous growth. Break off any flowers that form.



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Vegetable Gardening

Summer Vegetables

Believe it or not, vegetables can be planted year-round in Louisiana. During the hot summer months, our choices and potential cultivars are somewhat limited, but there is still fun to be had in the garden.

Remember to watch for insects each week! Insect pressure builds during the summer, so regular scouting and application of insecticides is necessary to produce quality fruit.

You also will need to watch water carefully. In general, most vegetable plants need about an inch of rain/irrigation water/ week. In the intense heat, however, these requirements can change. If you are using drip irrigation or soaker hoses, check regularly for leaks. Avoid overhead watering to limit disease. Never let your plants wilt! Keep the soil moist but not soaking wet.

June

- In mid-June, you will want to plant your summer crop of heat-set tomatoes. Planting heat-set tomatoes is VERY important. These tomato cultivars have been bred to set fruit during high nighttime temperatures, whereas other cultivars will not. If managed correctly, heat-set tomatoes will produce fruit through October. Examples of heat-set tomatoes include Florida 91, Solar Set and Sun Master, plus there are many others. Heat-set tomatoes can be planted again in late July for fall tomato production.
- Collard greens, cucumbers, watermelons, cantaloupes, okra, southern peas, pumpkins and summer squash can all be direct-seeded into the garden during June.
- You will want to start transplants of eggplants, peppers and sweet potato slips during June, as well.

July

- Transplant your fall crop of heat-set tomatoes. Bell pepper transplants also may be planted now.
- Okra, southern peas, cucumbers, squash, cantaloupes, pumpkins and watermelons can all be seeded in July. Mid-July is the optimum time to plant pumpkins for harvest close to Halloween!
- You may not believe it, but late July is a good time to start thinking about your fall garden. Broccoli, Brussels sprouts, cauliflower, Chinese cabbage, cabbage and collard greens should be seeded into trays for later plantings.

August

- Plant bush snap beans and bush lima beans in the garden. You also can plant seed trays of broccoli, Brussels sprouts, cauliflower, Chinese cabbage, cabbage, collard greens, cucumbers, squash, southern peas, mustard greens and shallot sets.
- In mid-August, you will want to transplant your broccoli and Brussels sprouts into the garden. In north Louisiana, start your lettuce seeds and plant beet and Irish potato seeds in the garden. In late August, south Louisiana gardeners can start their lettuce seeds and plant beet and Irish potato seeds into the garden



Crop Highlights

Bell peppers (Fall). If plants from the spring are still in good condition they can be nursed (sprayed or dusted and watered) throughout summer. They will set fruit again as the temperatures become more favorable. If seeds of bell peppers haven't been planted by early June, buy transplants.

Broccoli and cauliflower. Both can be direct-seeded beginning in mid-July through September or transplanted from early August through early September. It takes four to six weeks to produce transplants from seed. In general, broccoli and cauliflower will require 5 to 6 pounds (or pints) of a complete fertilizer such as 8-24-24 or 13-13-13 per 100 feet of row. These crops, especially cauliflower, require fast, continuous growth for proper head development. Keep them well watered and fertilized. Side-dress plants with 3/4 pound (1 1/2 cups) of ammonium nitrate per 100 feet of row three weeks after transplanting and again two weeks after that. Varieties that will produce in about 60 days from transplanting reduce the chance of cold-weather damage.

Recommended varieties are:

- Broccoli: Gypsy, Diplomat, Packman
- Cauliflower: Majestic, Candid Charm, Cumberland, Snow Crown, Freedom

Cabbage. Plant seed beginning in mid-July and seed through September. You also may transplant beginning in early August through mid-October. Fertilize the same as broccoli and cauliflower. Space cabbage, cauliflower and Chinese cabbage about 12 to 14 inches apart and broccoli 6 to 12 inches apart. Double drills (two drills of plants spaced 10-12 inches apart on a single row) will help maximize yield. Try Rio Verde for late plantings. Recommended early maturity varieties include Platinum, Dynasty, Gold Dynasty and Stonehead (AAS). Maturing a little later are Rio Verde, Solid Blue 780, Red Dynasty, Emblem, Blue Dynasty, Thunderhead Royal Vantage, Silver Dynasty, Blue Thunder, Cheers, Vantage Point, Savoy Ace (AAS) and Savoy King (AAS).

Greens. Begin planting greens – mustards, turnips and collards – during August. Keep the soil moist to ensure a good stand. Try some of the white turnips like White Lady and Tokyo Cross for roots and Seven Top, AllTop, Topper and Southern Green for greens. Also good are Just Right, Royal Crown, Purple Top WG and Red Giant.

Irish potatoes. Plant small whole potatoes saved from the spring crop from about mid-August to early

September. Good soil moisture is essential. The seed potatoes may not sprout readily after planting because of a physiological rest period of about 90 days they have to go through after harvesting during the spring. After this rest period is satisfied, the tubers should sprout. Fall yields are lower than spring yields. Use the smaller potatoes (that you harvested) for seed pieces.

Lettuce. Head lettuce can be grown in Louisiana during late August. A common mistake is planting the seed too deeply. Lettuce seed requires light for germination, so scatter the seed on the row and lightly rake it into the soil. Plant leaf lettuce during September. Keep the soil moist until the seeds have germinated and are well established. Head types are tougher to grow. Keep lettuce growing actively to keep it from becoming bitter. Recommended varieties of head lettuce are Summertime, Ithaca and Maverick. For leaf lettuce, try Slobolt, Red Salad Bowl, Grand Rapids, Red Fire, Tango, Red Sails, Salad Bowl, Sunset, Simpson or Elite. The recommended romaine lettuce varieties are Parris Island, Ideal, Green Forest and Green Towers. For butterhead or bibb lettuce, try Buttercrunch, Esmerelda or Oak Leaf. And for batavia types (leaf lettuce with a unique flavor), try Nevada or Sierra.

Lima beans. This crop is harder to produce than snap beans during the fall. Plant early enough to produce before frost and late enough so they're not blooming while temperatures are too high for fruit set. Plant from early August through about mid-August. Plant bush beans for fall production (Henderson, Fordhook 242, Thorogreen, Jackson Wonder or Dixie Butterpea).

Pumpkins. Pumpkins for Halloween should be planted during early to mid-July. Apply 3-5 pounds of a complete fertilizer (13-13-13) for each 100 feet of row before planting. Plant five to six seed in hills about 4 to 5 feet apart on rows 6 to 8 feet apart. Thin to one or two plants per hill. Apply a side-dressing of 1 pound (1 pint) of ammonium nitrate per 100 feet of row when vines begin to run. Keep soil moist for best production. Autumn Harvest, Orange Smoothie,



Cinderella, Silver Moon and Conestoga are excellent varieties to grow for Halloween. Recommended varieties of giant pumpkins are Atlantic Giant and Prize Winner, but remember Louisiana is not the best area to grow pumpkins, so don't fret if you do not reach award-winning sizes. WATCH for worms and spray routinely once they appear!

Shallots. Dry sets of shallots can be planted from August to April. About 50 to 60 days after planting, tops will be ready to harvest.

Snap beans. From late August through early September is the best time to plant snap beans. Normally 50 to 55 days are required from planting until harvest. Don't let beans suffer from drought. Good varieties are Provider, Roma II, Derby, Bronco, Royal Burgundy, Green Crop, Strike and Caprice. For a yellow wax bean, choose Golden Rod Wax. Bush beans usually will produce more successfully than pole beans during the fall because of their earlier maturity.



Squash and cucumbers. These two crops can be planted in June, July and August. Summer plantings normally will be ready to begin harvesting after about six weeks. Fall yields usually are lower than with spring plantings. A fall crop of yellow summer squash, zucchini and cucumbers can be grown by planting seed during August. Squash vine borers may be a more severe problem during fall than spring, so be prepared to control them with an insecticide. Viruses are a problem during the fall. The best cucumber to plant is Dasher II or Olympian.

Tomatoes (Fall). Transplant fall tomatoes during July. Be prepared to spray with insecticides and fungicides. Insect and disease pressure usually is worse during the fall than the spring. The

heat-set varieties that have produced well in trials are Sun Leaper, Florida 91, Sun Master, Solar Fire, Sun Chaser, Phoenix, Solar Set and Heat Wave II. These varieties have the ability to set some fruit during times of high temperatures, allowing the fruit to mature before cool weather. Row covers, which protect the plants from the first frost, have prolonged the harvest period and enhance fruit maturity. Also worth trying during fall is BHN 216. Since fall tomatoes are a crop you can't really be sure of, it's interesting to try several early varieties. Certain varieties may produce better in some parts of the state than others because of the variations in climate and soils. Start early, and get a strong bush.



*Kathryn Fontenot
Home/School/Community Garden Specialist*

Tips for Summer Care of Turfgrass

Summer is the prime growing season for lawns in Louisiana.

If you did not fertilize your lawn during the spring, you still have time to fertilize and get your lawn in good shape prior to fall. Keep up a good fertility program through early to mid-August only. Apply all granular materials on a dry lawn and water soon after application.

St. Augustine grass and zoysia respond well to fertilizer and should be fertilized two to three times during the growing season. Bermuda grass is an even bigger fertilizer user and could be fertilized even more often, especially if you like to mow grass. Carpet grass and centipede are not big fertilizer users.

Centipede grass should receive its optional second and last fertilizer application in late July or August. For centipede, apply only 1/2 pound of actual nitrogen per 1,000 square feet as a complete turf fertilizer. For example, you would apply 3 pounds of 17-0-17 per 1,000 square feet or 5 pounds of 10-0-10 per 1,000 square feet. St. Augustine grass would need twice this rate.

Fertilize St. Augustine, Bermuda and zoysia grasses in June and again in early to mid-August with at least 1 pound of actual nitrogen per 1,000 square feet. For example, you would apply 7 pounds of 13-13-13 per 1,000 square feet or 5 pounds of 19-19-19 per 1,000 square feet.

Make sure lawns are getting adequate amounts of moisture during the summer months, but don't overwater. Water deeply only once or twice per week – or as needed, based on the amount of rainfall. Centipede grass is the least tolerant lawn to drought, so take care to provide adequate amounts of moisture for this grass, especially during dry periods.

Watch for chinch bugs in St. Augustine and Bermuda grass lawns and treat with an LSU AgCenter recommended insecticide. Chinch bug problems show up as yellow-brown areas of the lawn during hot and dry weather. These insects extract plant juices from turfgrass stems and crowns while pumping toxic salivary fluids into the plant. The fluids disrupt the plant's vascular system.

Check for chinch bugs in the lawn by saturating suspected areas with a gallon of water mixed with a few squirts of lemon dishwashing soap. This soapy solution irritates chinch bugs and brings them up

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near the grass surface so you can determine if the bugs are causing the lawn damage.

Additional insect problems that appear during the summer include armyworms and tropical sod webworms. These moth larvae or "worms" can cause severe lawn damage very quickly and will need to be killed with insecticides to prevent further damage.

Be mindful of these pests as you walk through your lawns. Investigate damaged areas and treat accordingly.

Weed management is difficult in St. Augustine and centipede lawns because herbicides can cause severe lawn injury when temperatures exceed 90 degrees. Limit applications to careful spot treatments to reduce lawn injury.

Pull up small populations of Virginia buttonweed or carefully spot treat with products like Ferti-lome Weed Free Zone. Mature plants that have been allowed to grow all summer will be uncontrollable. It is a good idea to begin spot treatments as early as May. Inspect the lawn often and pull weeds by hand or spot treat areas with herbicides to prevent the formation of large mats of these weeds by the end of the summer.

*Ron Strahan
Weed Scientist/Turfgrass Specialist*

Blackberry Crops Have Expanded Worldwide

Blackberries are native across much of Europe, Asia and North America. This presence, combined with their tendency to colonize disturbed areas, has made them a food source for humans for thousands of years.

The various members of the genus have had a multitude of uses throughout human history, as documented in archaeological studies and in art and herbals. For most of their history, they were a fruit to be gathered from the wild. It wasn't until the mid- to late 1800s that people started to select for better or, more typically in the early stages, novel characteristics in plants that were brought into cultivation.

Fresh fruit production began to be more common for local sales in the 1900s. The development of the raspberry/blackberry hybrid Logan in the 1880s served as the basis for a substantial canning industry in the Pacific Northwest. This industry expanded with the development of freezing technology.

Growing conditions in the Pacific Northwest and California were ideal for the newly discovered raspberry/blackberry hybrid Boysen and for the first trailing blackberry cultivars developed by USDA's George Waldo in the 1930s through 1950s. While the fresh blackberry industry grew slowly as locally produced products, the processed industry flourished, thanks to the release of Marion in 1956 and the invention of viable mechanical harvesters.

The success of the fresh red raspberry industry provided an example of how blackberries could become an important fresh-market crop.

The fresh red raspberry industry grew rapidly from the 1970s to the 1990s with the development of cultivars developed primarily by Driscoll Strawberry Associates in Watsonville, Calif., which could be shipped internationally from California.



Blackberries have similar horticultural characteristics to raspberries but have lower production costs than raspberries because of their more vigorous nature, greater disease tolerance and longer-lived plantings. California growers looked to blackberries as a profitable way to meet consumer desires for new products. Blackberry consumers in the South and the Pacific states had wild blackberries growing in their backyards and developed a preference for their blackberries.

The southern species tended to be sweet, with a slightly grassy and occasionally quite bitter flavor, along with somewhat crunchy seeds. The main species in the West tended to have an intense, aromatic flavor with a sweet/acid balance that when right leads to the intense flavor but when too acid leads to a tart berry. They also had less noticeable seeds.

Cultivars developed for the fresh market tend to blend these characteristics, being well balanced but with a strong sweetness, with seeds that don't dominate the chewing experience. As these cultivars were

combined with new horticultural and economic factors, blackberries became much more desirable to consumers. Perceived health benefits of highly colored fruit, due to their anthocyanin or antioxidant content, have helped drive increased customer demand. Thus, blackberries complemented other berries in expanded consumer interest.

The greatest recent expansion in blackberry production has been in North America, especially California and Mexico, for fresh consumption across the United States and Europe.

This expansion has been driven by factors like a stable blackberry supply in most or all months of the year, made up of cultivars that allow shipping to distant markets. While the fresh blackberry industry expanded rapidly in California in the 1990s, it exploded in Mexico in the 2000s. The Pacific Northwest, while primarily a processed industry, had a significant expansion of its fresh market at the same time. The most exciting production area for blackberries that has developed in recent years is central Mexico – in the states of Michoacan and Jalisco.

Most blackberries produce vegetative primocanes the first year, and after these canes go through a dormant period they become floricanes that bear the crop. In the 1980s, cultural manipulations were developed to allow floricanefruiting blackberries to be forced into fruiting without a dormancy period. This production system is cultivar dependent and was first developed on the thorny Brazos, which had an estimated chilling requirement of approximately 300 hours. Production of Brazos was the basis of the development of the Mexican blackberry industry in the 1990s. In 1990, the Brazilian cultivar Tupy was brought to Mexico and was estimated to have a similar chilling requirement as that of Brazos.

Although initial efforts to manage Tupy with the same practices used on Brazos were not fully successful, adjustments were tried to provide for dependable production of Tupy.

The substantially increased quality of Tupy over Brazos led to expanded market development and tremendous expansion in production area. Fruit production in Mexico spans the months of October to June using these specialized management methods. It is estimated that Tupy was produced on roughly 16,000 to 20,000 acres in central Mexico in 2011. This production has provided for a dependable fruit supply during the offseason in the United States and Europe.

With the expansion of blackberry marketing in winter and spring in the United States and Europe, U.S. fresh-market production was encouraged to increase. Crop area expanded further in the western states, particularly California, and production for commercial shipping began in the South. Georgia, North Carolina, Arkansas and Texas initiated acres for retail-market sales. Current production in the United States is at an all-time high with the development of these additional areas.

With increases in the United States, particularly from 2005 to now, it is easy to see a strong upward trend in production. Mexico's production still dwarfs that of the United

States, however. Although not all production for shipping is included, blackberries shipped increased from just above 10,000 pounds in 2000 to approximately 120,000 pounds in 2010. While the tonnage of Mexican fruit going to processing is much less than the tonnage going fresh, with the tremendous expansion of the industry, there now is a processing industry where there wasn't one in the past.

The U.S. Pacific Northwest, with more than 8,500 acres, and Serbia in Europe, with more than 12,000 acres, remain the leading world producers for the processed market.

The Pacific Northwest, primarily Oregon, also has a substantial fresh-market industry, but this is dwarfed by its processing industry. Marion,

marketed as Marionberry, is a trailing blackberry that has been the most important cultivar in this region since the 1960s. While renowned for its flavor and processing characteristics, it is thorny – which is a legal liability, especially in a machine-harvested crop – and it is too soft to ship fresh.

New high-quality, thornless, trailing cultivars that are suited for machine harvesting and processing have been developed and are being widely planted. In addition, trailing cultivars that have firm fruit and can be shipped have been developed and are being planted in the Northwest region for the fresh market. While the fresh blackberry industry has rapidly expanded, the processing industry has remained relatively stagnant, with only a small increase in acreage worldwide.

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Horticulture Hints



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2012

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