

Yearly Calendar for St. Augustinegrass Care and Culture

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The University of Florida publication **"Yearly Calendar for St. Augustinegrass Care and Culture"** (by L.B. McCarty and John L. Cisar) was last revised in January 1995 and subsequently removed from publication. A lot of that information is included in this Fact Sheet but brought up to date specifically for Orange County with reference to the "Fertilizer Blackout" ordinance, reduced phosphorous, and pest/pesticide recommendation for St. Augustinegrass.

Orange County has a Fertilizer "Black Out" Period from June 1st to September 30th. Only homeowners who have completed this online educational program (<http://www.orangecountyfl.net/Portals/0/Library/Environment/docs/FertilizerApplicationOnlineCourse051810.pdf>) and satisfactorily complete the associated quiz, may apply fertilizer to the lawn during the fertilizer "Black Out" period otherwise you will want to complete Spring lawn fertilization before the end of May.

Phosphorous is not always required in a turfgrass fertilizer because of the inherent nature of some Florida soils. If the soil test indicates an adequate level of phosphorous, choose a fertilizer blend that does not contain phosphorous (2nd number in the

fertilizer analysis) as one of the supplied nutrients such as 15-0-15 or 20-0-4.

St. Augustinegrass that is a fast-growing, warm-season turfgrass used extensively in Florida. It grows well on most well drained soils. For optimum quality, adequate irrigation and fertilization are required. St. Augustinegrass is the best shade tolerant grass suitable for Florida. Also, St. Augustinegrass is coarse (wide) in leaf texture and has poor wear tolerance, which may be undesirable for some purposes.

Cultivars of the native St. Augustinegrass differ in their resistance to plant pests. Only the cultivar Captiva is tolerant of the Southern Chinch bug, a common turfgrass insect. Another insect, sod webworm, and the fungal diseases large patch (formerly known as brown patch) and grey leaf spot can also cause damage.

Proper lawn management practices are the best means of avoiding plant pest problems and obtaining high quality turfgrass.

GENERAL MAINTENANCE

The level of lawn maintenance is dependent on turfgrass quality desired, time, and money available (Table 1). These factors

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will regulate the amount of fertilizer and pesticides applied each year. Persons requiring minimal maintenance for their lawns should have a low fertility program and apply pesticides only on a curative basis only. This consists of two fertilizer applications per year.

One bag of fertilizer does not equal one yard. If you have a fertilizer bag that will cover 5,000 square feet of lawn and you only have 3,500 square feet of turfgrass and you use the whole bag at one time, **you have just over fertilized the turfgrass.** Ensure your lawn type is listed on the fertilizer label. Follow the label directions to use the fertilizer applicator correctly to apply the proper rate of fertilizer. The first application should follow the onset of spring green-up (usually in March but could be as late as May), and the last should be timed for early fall (October) to comply with the "Fertilizer Black Out" ordinance in your county. Although nitrogen is the element most commonly applied to turfgrass, other essential elements, plus micronutrients, should be part of a fertilizer maintenance program. For all maintenance levels, a minimum of two treatments of a lawn fertilizer such as 29-1-10 or 15-0-15 should be made per year in order to supply the other essential elements of phosphorus and potassium. Complete fertilizers (N-P-K) containing micronutrients should also be considered. In all instances, lawn fertilizers should have Phosphorous (middle number) of 4 or less. The use of "weed and feed" type fertilizers is a personal choice and may help with broadleaf weed control in St. Augustinegrass.

FEBRUARY - MAY

Mowing

Proper mowing practices are essential for maintaining a quality lawn. Mow the lawn at 3 inches as needed. Mowing at a lower height will encourage shallow rooting, which is less tolerant to drought and nematode pressure. Remove no more than 1/3 the height of the leaf blade with any mowing (e.g., for a lawn to be maintained at

3 inches in height, mow when the turf reaches 4 to 4½ inches). Over time, impact of the rotary blade with St. Augustinegrass will dull the mower blades. Mowing with dull blades will shred leaf blades, extend the recovery period of the grass, and lower the aesthetic quality of the lawn. Use only a sharp, balanced mower blade and return clippings on the lawn unless the amount is excessive (e.g., clumping occurs). If clippings are excessive, allow them to dry in the sun and then scatter them by removing, blowing, or raking.

Fertilization

Two weeks following spring regrowth (approximately March), apply a fertilizer product at the rate stated on the fertilizer container (bag or bottle). On high pH (>7.0) soils or where high pH water is applied, yellow appearance may be an indication of iron. For iron deficiency, use a chelated iron source (such as Ironite), to temporarily enhance color and, unlike nitrogen, will not promote excessive top growth.

Submit a soil sample every three years to your local UF/IFAS Extension Service county office to determine the soil pH, nutrient levels present, and if any deficiencies exist.

Irrigation

Normally, fall through spring is the driest period of the year. Therefore, irrigation is required to replace water lost via the soil and the plant (evapotranspiration). For water conservation, irrigate to prevent drought stress on an as-needed basis. Irrigate when the turf begins to wilt, turns blue-gray in color, and/or recovery from foot prints is slow. Apply enough water to rewet the soil root zone and then wait until the turf shows signs of drought (e.g., wilting) again before the next irrigation (usually every 7 to 14 days in winter, 3 to 4 days in March-May). For most Florida soils, no more than ¾ inch of water is necessary for each irrigation period to rewet the top 8 to 12 inches of the root zone. To determine the amount of water being applied, place several coffee cans

around your irrigation system. Turn on the system for 15 minutes. Measure the depth of water in each can to the nearest 1/8 inch, and take an average of those measurements. The time required to achieve an average of 3/4 inch depth of water is the time period one should use for each irrigation period. The length of the irrigation period to apply this 3/4 inch can stay constant year round; only the *frequency* between irrigations should change. Therefore, irrigation programs set by automatic timers do not need to operate on a daily schedule. They need only to operate after the turf begins to show signs of drought and then be programmed to apply an average of 3/4 inch of water. Over watering encourages fertilizer leaching, increased pest problems, shallow rooting, and, of course, water waste. For further information get a copy of "**How to Calibrate Your Sprinkler System**" from <http://edis.ifas.ufl.edu> or contact your UF/IFAS Extension county office. In April, be prepared to change the weekly frequency of irrigation to comply with local and state Water Management District rules.

Weed Control

The best approach to weed control is a healthy, vigorous turf. Proper mowing height, fertilization, and watering must be followed to encourage a competitive lawn grass. If a herbicide is needed, apply preemergence herbicides (i.e., atrazine) to control broadleaf weeds if they were present in previous years. Timing is critical for successful control. A general rule of thumb for application is Feb. 15 in central Florida. *Note: Preemergence herbicides will not control weeds which are actively growing.* Apply postemergence herbicides (e.g., atrazine) in May for control of summer annual and perennial broadleaf weeds such as knotweed, spurge, lespedeza, etc. Do not apply these materials if the turf is under moisture stress or if air temperatures exceed 85°F. Check with your local UF/IFAS Extension county office for positive weed identification and latest recommendations.

Insect Control

Chinch bugs are foliar feeding insects which suck plant juices through a needle-like beak, resulting in yellowish to brownish patches in turf and death of the grass. Injured areas are usually first noticed, as the weather begins to warm, along sidewalks adjacent to buildings and in other water stressed areas (grass dries quicker in these areas) where the grass is in full sun. Take a sod sample to your UF/IFAS Extension county office which should be about 1 foot square with mostly green turf and some brown turf to determine what pest may be eating your yard. Use a plastic or paper bag, shoe box, or any suitable container. The fresher the material is, the easier it is to diagnose the problem. In areas where chinch bugs are a serious problem, a single thorough insecticide treatment (with Chinchbugs on the label) may offer only temporary control (1½ to 2 months). Repeat applications may be required at an interval as indicated on the product label. When applying any pesticide, read and follow all label instructions.

Nematode Control

Population peaks of nematodes typically occur in late April to early May and again in late August to early September. Damage symptoms include thin stand density, less vigorous growth, a weakened root system, slow recovery following rain or irrigation application, and certain weed invasion (e.g., prostrate spurge and Florida pusley). Soil nematode levels can only be positively identified through laboratory procedures. Inquire with your local UF/IFAS Extension Service county office on proper sample submission to the University of Florida Nematode Assay Laboratory. There is currently no homeowner control for this pest.

Thatch Removal/Compaction

Thatch is the layer of undecomposed leaf blades, stolons, roots and crowns intermingled with soil. Contrary to popular belief, return of mowing clippings to the lawn does not cause thatch. Excessive thatch develops when the grass is over fertilized, over watered, and improperly mowed.

Periodic topdressing (adding a uniform layer of soil on top of the grass) with to ¼ inch of soil similar to that underlying the turf (sand) is a good method to help the grass recover from thatch accumulation or compaction problem; however, the physical labor required limits its practicality. If this is performed, use soil free of weed seeds such as "builder's sand". Do not exceed recommended topdressing rates as this encourages large patch disease.

Renovation

Replant large bare areas in April-May by sodding. Keep these areas continuously moist with light, frequent irrigations several times daily (i.e., 15-20 minutes at 8am, 11am and 2pm) until runners develop or when sod is well rooted. Over time, gradually reduce irrigation frequency, but increase irrigation duration to apply ¾ inch in order to wet the top 8 to 12 inches of the root zone. For more information obtain a copy of "Establishing Your Florida Lawn" from <http://edis.ifas.ufl.edu> or your local UF/IFAS Extension county office.

JUNE - SEPTEMBER

Mowing

Mow the lawn at 3 inches as needed. Mowing at a lower height will encourage shallow rooting, which is less tolerant to drought and nematode pressure. Remove no more than 1/3 the height of the leaf blade with any mowing (e.g., for a lawn to be maintained at 3 inches in height, mow when the turf reaches 4 to 4½ inches). Use only a sharp, balanced mower blade and return clippings on the lawn unless the amount is excessive (e.g., clumping occurs). If clippings are excessive, allow them to dry in the sun and then scatter them by removing, blowing, or raking.

Fertilization

Since the county has a "Fertilizer Blackout" ordinance in effect from June – September, homeowners may not apply fertilizers to the lawn during this time of the year unless they

have completed an online educational program

(<http://www.orangecountyfl.net/Portals/0/Library/Environment/docs/FertilizerApplicationOnlineCourse051810.pdf>) and

satisfactorily complete the associated quiz, may apply fertilizer to the lawn during the fertilizer "Black Out" period. Using an iron source during summer is an alternate recommendation to nitrogen to provide desirable dark color without undesirable flush of growth. If excessive yellowing occurs, supplemental iron applications may be required.

Irrigation

Frequent, intense rainfall normally occurs during this period. Therefore, irrigate to prevent drought stress only on an as-needed basis. **An automatic irrigation system must have a "rain sensor"** to prevent irrigation during a rainstorm. Consider turning off the automated irrigation system during this time of year. Use a rain gauge to determine if sufficient rainfall in the amount of at least ¾ inch has fallen during the week. Supplemental irrigation may be required if sufficient rainfall has not occurred.

Weed Control

The best method to control weeds is through a healthy, vigorous turf. Applying any postemergence herbicides during summer may result in objectionable turf injury. Follow label directions and use with caution. Do not apply herbicides unless grass and weeds are actively growing and not suffering from drought stress and air temperatures are below 85°F.

Insect Control

Check for chinch bugs as previously described. If the turf turns yellow in spots or responds poorly to watering and fertilization, suspect root damage from white grubs. Check for white grubs (root feeders) by cutting three sides of a 1-foot square piece of sod about 2 inches deep with a spade/shovel at the edge of one of the yellow areas in the lawn. Pull back the sod and check for white C-shaped grubs.

Apply an insecticide (such as Bayer's Grub Killer Plus) if two or three grubs are found per square foot. Take a sod sample to your UF/IFAS Extension county office which should be about 1 foot square with mostly green turf and some brown turf to determine what pest may be eating your yard. Use a plastic or paper bag, shoe box, or any suitable container. The fresher the material is, the easier it is to diagnose the problem. Read and follow all pesticide labels.

Disease Control

Important disease symptoms are usually expressed as circular brown patches one to several feet in diameter or by spots (lesions) yellow, brown or purplish in color on individual leaves (gray leaf spot disease). Many times these result from over irrigation or excessive nitrogen fertilization. If damage is extensive, a fungicide application may be necessary. Refer to your local UF/IFAS Extension Service county office for disease sample submission and the latest fungicide recommendations.

OCTOBER - NOVEMBER

Mowing

Continue mowing at the specific height and frequency for the desired maintenance level as previously described.

Fertilization

Apply a fertilizer listed for St. Augustine grass in October. Apply a fertilizer product at the rate stated on the fertilizer container (bag or bottle).

Irrigation

Continue irrigating (as needed) to prevent drought stress. Apply amounts previously noted ($\frac{3}{4}$ inch) when turf turns blue-gray in color and/or foot prints occurs. Irrigate following onset of frost (browning of foliage) if needed to prevent winter dehydration. In November, be prepared to change the weekly frequency of irrigation to comply with local and state Water Management District rules.

Insect Control

Check for white grubs, caterpillars and mole crickets as previously discussed. Take a sod sample to your UF/IFAS Extension county office as previously discussed. Contact your local UF/IFAS Extension Service county office for recommended control measures.

Disease Control

Do not over irrigate, as this encourages disease growth (especially in heavy or poorly drained soils). If disease is suspected, consult your local UF/IFAS Extension Service county office concerning identification and control recommendations.

DECEMBER - FEBRUARY

Mowing

Remove lawn debris (rocks, sticks, and leaves) or any unsightly tall weeds or plants. Mow as needed to keep weedy plants from flowering (a means of reducing future weeds without herbicides).

Fertilization

Do not fertilize at this time. Submit soil samples for analysis at least every three years to determine nutrient requirements (contact your local UF/IFAS Extension Service county office for details). Soil samples should be removed from several locations in your lawn at a depth of 6"; mix all samples from that area in a bucket and bring a pint of soil for a pH analysis. Do not include debris such as leaves, sticks or large stones in your sample. A complete soil fertility test to determine amounts of nutrients in the soil can be performed only by the Extension Soil Testing Laboratory (ESTL), Wallace Bldg., UF, Gainesville, 32611. Locate a copy of the "Landscape and Vegetable Garden Test Form" and instructions for mailing the sample to ESTL at <http://edis.ifas.ufl.edu>.

Irrigation

Irrigate as needed to avoid moisture stress.

Weed Control

Apply broadleaf herbicides (e.g., atrazine) as necessary for control of chickweed, henbit, clover, pennywort, Asiatic Hawksbeard or wild garlic/onion. Selected herbicides (e.g., atrazine or simazine) can be applied for

control of annual broadleaf weeds. A repeat application 3 to 4 weeks after the first may be necessary to achieve satisfactory control. Follow label directions for rates and use with caution.

Table 1. Suggested Yearly Maintenance Schedule for St. Augustinegrass.

	MONTH											
	J	F	M	A	M	J	J	A	S	O	N	D
Fertilization Maintenance	-	-	C ¹	-	C	Fe ²	-	-	-	C	-	-
Weed Control	-	PE ⁴	-	-	PO ⁵	-	-	PO	-	-	-	B ⁶
Mowing (3-inch height)	Frequency is approximately every 5-14 days for a height of 2½-3½ inches, depending on season and management practices. Best mower: rotary. Remove no more than of the leaf blade height per mowing. Leave clippings unless clumping occurs.											
Irrigation (¾ inch water per irrigation)	Irrigate when leaves show signs of drought: blue-gray color, slow foot prints recovery, folded leaf blades. A simple irrigation schedule is to apply ¾ inches of water 2 to 3 times per week in the summer and once every 7-14 days in the winter. Reduce this frequency following rain. Avoid light, frequent (daily) watering and over watering (point of runoff). Best time of day to water is in early morning.											
Disease Control	Primary diseases are brown patch and gray-leaf spot. Brown patch tends to be more troublesome in spring and fall when the soil remains continuously wet and the turf is over fertilized. Gray-leaf spot tends to occur in the summer when the turf is over fertilized and overwatered. Continually check for symptoms and submit suspected disease samples to your local county agent's office.											
Insect Control	Greatest damage usually results from chinch bugs and mole crickets. Chinch bug damage is greatest during hot, dry periods when the grass in not actively growing. Check for these by inserting a coffee can into the soil and filling with water. If present, chinch bugs will float to the surface. Check for mole crickets by observing tunnels or by applying 1-2 oz of soap per gallon of water over suspected damaged areas. Mole crickets, if present, will surface within 5 minutes.											
Vertical mowing/dethatching	Using a 3-inch blade spacing, begin in May in north Florida and April in south Florida. Discontinue by August. When completed, remove the debris, mow the lawn, apply a lawn fertilizer at the label rate and irrigate to prevent drying out and fertilizer burn.											
* The arbitrary dividing line between north and south Florida is a straight east-west line from coast to coast through Orlando.												
1 C: Apply a fertilizer source (e.g., 16-4-8, 15-0-15) at the rate indicted on the fertilizer bag or bottle.												
2 Iron (Fe) may be supplied at the rate indicated on the product label source.												
3 Apply as indicated on the label to help prevent succulent growth which is more susceptible to chinch bug damage.												
4 Use a preemergence herbicide (PE) such as atrazine, bensulide, oxadiazon, benefin, or pendimethalin for crabgrass control. Plan to reapply herbicides as indicated on the herbicide label (approximately 2 months later for season-long control.												
5 Use postemergence broadleaf herbicides: contact your UF/IFAS Extension county office for current recommendations.. Note: Do not apply postemergence herbicides when air temperatures exceed 85°F or the grass is under any moisture stress. Objectionable turf injury may result.												
6 If broadleaf (B) weeds are present, apply atrazine .												