



Care of St. Augustine Lawns in the Houston Area

Lawn quality is generally measured in terms of color, density and uniformity. Cultural practices, particularly fertilization, largely determine lawn quality. A fertilization program should include timely applications of fertilizer in amount and formulations that meet the requirements of your lawn. Common sense and refraining from "over doing" is one of the main keys to successful lawn maintenance. Over-fertilizing in one application causes many problems:

- 1) Produces an over-abundance of grass foliage to mow, which in turn produces thatch buildup on the lawn.
- 2) Thatch accumulation provides a refuge for insects and fungus spores.
- 3) Over-fertilizing weakens the grass and makes it more susceptible to damage from insects and diseases.

Grass clippings can be caught, raked, or allowed to decompose to prevent heavy thatch buildup. Over fertilizing causes lawn grasses to grow too quickly requiring frequent mowing. Often, a homeowner will cut too much of the grass blade at one time. This is difficult to decompose in the lawn and leads to increased insect and disease damage as well as poor cold-tolerance.

Poor timing of fertilizer application also increases the likeliness of chinch bug and brown patch problems in St. Augustine lawns. Use the chart on this

page to aid in identifying any other problems you may encounter.

Environmental conditions such as shade, soil type and rainfall also influence requirements. Moderately or heavily shaded areas should not be fertilized as much as areas in full sunlight.

Grass growing in shade is more succulent and has a weaker root sys-

tem than grass growing in full sunlight.

Turfgrass growing in sandy soils requires more frequent applications of nitrogen than those growing in heavy soils. Lawns in areas subject to high rainfall require more total pounds of nitrogen per year than lawns grown under dry conditions.

Lawn Problems

Symptom	Time	Cause	Solution
Large dead circles	Early Spring Early Fall	Brown Patch Fungus (Rhizoctonia solani)	Preventative: Terrachlor Control: Bayleton
Small, ash-colored bubbles on grass blades	After time of high moisture	Slime Mold Fungus (Physarium cinereum)	Control: Wash or brush away
Powdery substance on grass blades	After time of high moisture	Powdery Mildew (Erysiphe graminis)	Control: Bayleton
Loss of vigor; blotchy streaking in leaf-blades	Growing season	St. Augustine Decline Virus	Control: Plant resistant varieties like 'Raleigh'
Large, yellow or brown discolored area	Summer dry period	Chinch Bugs (Blissus insularis)	Control: Diazinon, Sevin, Dursban
Areas of dead grass that seem to have little remaining root system	Spring and Summer	White Grubs (Phyllophaga spp.)	Preventative: Diazinon (June) Control: Diazinon, Dursban
Mounds of soil	Anytime	Ants (Formicidae Family)	Control: Diazinon, Baits



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Fertilizer applications

Timing and distribution of fertilizer applications, as well as rate of application, are important considerations in a lawn fertilization program. Timing applications to correspond to grass requirements rather than to the convenience of the homeowner can reduce maintenance problems. (See the chart on the right).

Lawns require supplemental applications of nitrogen at 45-60 day intervals between spring and fall fertilizations. These applications should not exceed one pound of nitrogen per 1,000 square feet per application. Slow-released nitrogen should be used on St. Augustine during the summer, since the soluble nitrogen sources increase lawn susceptibility to chinch bugs. Cornelius 21-5-10 Premium Lawn Fertilizer contains over 40% slow release nitrogen to reduce nitrogen run-off and leaching, and to lower lawn susceptibility to insects and diseases.

St. Augustine lawns may require periodic application of iron chelate to prevent iron chlorosis. These applications may be needed several times during the growing season. Iron chelate should be applied according to the manufacturer's directions. Fertilizers should be distributed with a broadcast (cyclone type) spreader. Uniform distribution is essential to prevent light and dark streaks across the lawn.

Cornelius Lawn Fertilizing Program

Cornelius 21-5-10 Premium lawn Fertilizer is a 4-1-2 ratio and is specifically formulated for the soils of the Harris County area. As outlined by Texas turf experts, ratios of 3-1-2 and 4-1-2 are best for Gulf coast lawns. Planned applications, as outlined in

the program below, are necessary for optimum lawn vigor, health and beauty. To receive the most pleasure from your lawn, Cornelius Nurseries recommends that you follow this program. Shown are the recommended ratios of Nitrogen-Phosphorus-Potassium.

	Heavy Soils	Sandy Soils
St. Augustine Grass		
mid-late February	4-1-2 or 3-1-2	4-1-2 or 3-1-2
mid-late May	4-1-2 or 3-1-2	4-1-2 or 3-1-2
mid-late June	4-1-2 or 3-1-2	4-1-2 or 3-1-2
mid-late September	4-1-2 or 3-1-2	4-1-2 or 3-1-2
Common Bermuda Grass and Rye Grass		
mid-late February	4-1-2 or 3-1-2	4-1-2 or 3-1-2
late April; mid May	4-1-2 or 3-1-2	21-0-0
mid-late June	4-1-2 or 3-1-2	4-1-2 or 3-1-2
early-mid September	4-1-2 or 3-1-2	4-1-2 or 3-1-2
Hybrid Bermuda Grasses (Tifway, Tifgreen, Tifdwarf)		
mid-late February	4-1-2 or 3-1-2	4-1-2 or 3-1-2
late April, mid May	21-0-0	21-0-0
mid-late June	4-1-2 or 3-1-2	4-1-2 or 3-1-2
mid-late July	4-1-2 or 3-1-2	21-0-0
mid-late September	4-1-2 or 3-1-2	4-1-2 or 3-1-2

For other fertilization needs or turf problems, see a Cornelius Texas Certified Nursery Professional.



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