

Rainbow Gardens Lawn Fertilization & Maintenance Schedule

For warm season southern grasses in SC Texas including:

St. Augustine, Bermuda and Zoysia

FERTILIZE - Badly damaged lawns, feed four times a year, not so bad, three times a year, perfect, late spring & fall!

Late February-Mid to Late March - apply a simple 19-5-9 for an early green-up. Most companies that make slow-release fertilizers also make a non slow-release 19-5-9 that provides for a quick two-week green up before we get to the heart of the fertilizer schedule.

WARNING: Some people will be tempted to use a weed-and-feed at this time, but if you've been following the Rainbow Gardens herbicide schedule, there should never be a need. However, spot weed-and-feed treatments are recommended for those with turf-only landscapes or landscapes that have been established for many years. Most weed-and-feeds contain Atrazine which burns roots of young trees and shrubs.

Mid May-Early June - apply slow-release 3-1-2 or 3-0-2 ratio fertilizers.

Recommended formulations:

19-5-9 + minors	Rainbow Gardens Premium Lawn/Tree & Shrub Food
19-5-9 + Trace	Gardenline Brand
15-5-10	Any Texas Brand
18-0-6 + Trace	Fertilome Southwest Greenmaker
24-0-10	Fertilome + Chelated Iron Premium Lawn Food
18-6-12 + minors	Rainbow Gardens Premium Fall / Winterizer Lawn/Tree & Shrub Food

June-September - if turfgrass looks yellow (chlorosis) or necrotic, use an application of either granular or liquid iron. every third month should be enough. Hi-Yield iron Plus granules is a great working affordable product. **Stay away from IRONITE.....worthless mining byproduct that does little if anything!!!**

Mid July-Early August - apply slow-release 3-0-2 or 3-1-2 ratio fertilizers.

(recommended formulations above.)

June-September - The low levels of iron in the plant is caused by alkaline (high pH) soils found in many areas of the state. If the soil pH is too high, called alkaline, essential elements such as phosphorus, iron, zinc and copper become unavailable for plant uptake even though these elements may be present in the soil. Unavailability of mineral elements is caused by physical encapsulation by soil calcium or chemical change of added nutrients. Iron is needed for chlorophyll development. Chlorophyll makes plants green so lack of iron and consequently lack of chlorophyll causes yellowing of plant foliage. Iron chlorosis is most common during early spring when grass is growing vigorously. This irregularity is characterized by streaks of green through a predominately yellow leaf. In severe cases, brown margins or spots will develop but this will occur after the leaf has been yellow for a period of time. When turfgrass looks yellow (iron chlorosis) or necrotic, use an application of preferably granular or liquid chelated iron. every second or third month during the warm season should be enough. Hi-Yield iron Plus granules is a great working affordable acidifying product. Stay away from Ironite.....poor excuse for a product!

Late September-November - apply fall feeding with a winterize formula for winter hardiness. Ratios vary, but make sure they are "winter" or "fall" formulas designed for southern grasses. (example: 18-6-12,) Will make lawns winter-hardy and provides for early spring green-up.

FUNGICIDE - two times a year if unusual weather events or excessive/moisture/humidity present:

July-September - Gray Leaf Spot is a blotchy spot on the grass blade leaves. (mostly on St. Augustine lawns) Use fungicides with active ingredients like Daconil, Consan or Banner.

Late-August-September-October - To control the dreaded Brownpatch fungal disease (symmetrical brown circles in the grass) you must prevent it from coming up with a systemic lawn fungicide with Bayleton, Terrachlor, or Banner.

HERBICIDE - WEED CONTROL -fertilizing should do most of this for you but, if needed two to three times a year: (Pre-Emergent controls to prevent weeds - before they sprout!)

Early to Mid January - An application of a grassy pre-emergent like Amaze, Betasan, Balan, or Treflan will keep summer weeds from invading from March on, this application critical for sandy soil grass burrs! There is also Barricade, Dimension-based or Pendimethlin as a 2-in-1 control.

Mid April - Early May - One more application of a grassy pre-emergent like Amaze, Betasan, Balan, or Treflan will keep summer weeds from invading from April on, this application critical for sandy soil grass burrs! There is also Barricade, Dimension-based or Pendimethlin as a 2-in-1 control.

Late October-Early November - Use two (2) different pre-emergent herbicides, to prevent the weeds that we experience in February and March. First is a pre-emergent with Portrait or Gallery for broadleaf weeds like clover. Second, use a pre-emergent with Amaze, Betasan, Balan or Treflan for grassy weeds like poa anna or annual bluegrass. There is also Barricade, Dimension or Pendimethlin as a 2-in-1 control.

February-March - Use the pre-emergent controls for grassy weeds again, to prevent such weeds as Crabgrass, Goosegrass and Dallisgrass from popping up late in the spring and summer. Again, use the grassy pre-emergent like Amaze, Betasan, Balan or Treflan. There is also Barricade, Dimension or Pendimethlin as a 2-in-1 control. **Turf**

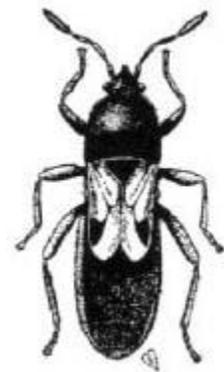
Damage Symptoms of Chinch Bugs and Grub Worms

The bugs become active in the spring, as weather warms up, and become progressively more destructive the drier it gets. Symptoms of bug infestation include irregular areas of yellow and brown in sunny areas usually adjacent to sidewalks, driveways, curbs, or patios. Yellow and brown spots will also appear on leaf blades and stems. Although tiny (1/4 inch or less), lawn chinch bugs can ruin a lawn in short order. They invade our lawns every summer and are at their worst during dry, hot summers.

Diagnosing Infestation

Chinch bugs don't like water. If you lay the end of your water hose near a suspect area and allow the area to flood, the tiny bugs will emerge and be seen crawling around on the grass. A better way to determine chinch bug infestation is to cut the bottom out of a two pound coffee can (or comparable can), push the bottomless can into the sod slightly, and fill it with water. Bugs will float to the top. You may have to try this in several places. Chinch bugs may be light brown, dark brown, or black with white specks on their back.

INSECTICIDES — It is our belief at Rainbow Gardens, as a way to be kind to the environment, that you do not put down insecticides unless you know you have a problem. Here in the San Antonio area where droughts occur more often than not, be prepared during the hot spring/summer months — May through October — to attack grub worm and chinch bug damage. Also with many mild winters with little freezing weather, early damaging insect activity during the long warm months will be at it's peak. This will show up as irregular shaped spots in the lawn along the concrete or in the hottest/sunniest parts in the case of almost microscopic chinch bugs. General dead patches with no root grass systems attached usually means grub worm infestations brought on by swarming European Chafer beetles (May beetle or June bugs). If the entire lawn needs treatment, then apply a granular insecticide like HY Delta Ranger (Deltamethrin) or granular HY Kill-A-Bug II (Permethrin) in a broadcast applicator throughout the entire yard. One application in mid to late May and another around the second week of July to control these two pests. Bayer Grub Killer Plus (Trichlorfon) and HY Grub Free Zone (Imidacloprid) granules cost a little more, but are extremely effective. Any liquid insecticide, like Permethrin or



Shortwinged Chinch Bug Adult



Bigeyed Chinch Bug Adult



Cypermethrin, will stop insect activity in these spots well, overlapping into undamaged still green areas.

Also, Take-All Root Rot (TARR), a major disease problem in St. Augustinegrass, will cause the leaf tissue to turn yellow. In the affected areas of the lawn, you will find both green and yellow leaf blades. Close examination of the stolons (runners) will reveal short, dark brown to black roots. If TARR is causing the problem, then an application of iron will not green up the yellow leaf blades. If TARR is the problem, then an application of sphagnum peat moss is one of the best treatments for this disease problem. Apply approximately 1 to 2 bales of the peat moss per 1,000 sq. ft. to the affected areas of the lawn. Then, apply Hi-Yield Iron Plus granules on top, a great working affordable acidifying product. Finally, thoroughly soak the peat moss / acidifer until it is wet. We have seen better results from a topdressing with peat



moss than we have with the application of any fungicide in most cases.

