

Take-all Root Rot in Your Lawn

By Deborah Birge, Fort Bend County Master Gardener

The primary roles of turfgrass are soil stabilization, water conservation, and filtration of air and water borne pollutants. Actively growing turf is highly effective in control of environmental pollution, such as the suppression of dust, glare, and noise, and in heat dissipation.

But what happens when our beautiful lawn begins to turn brown or develops yellow, circular spots? Is it Large Patch/Brown Patch, Chinch bugs, or Take-all Root Rot? If you suspect that your grass has Take-all Root Rot (sometimes called “Bermuda Decline” even though it also affects St. Augustine grass), first eliminate the possibility of these other two common problems. The treatments for them differ greatly from those for Take-All Root Rot.²



Figure 1. Large, irregular patches of take-all root rot on St. Augustine-grass.

Take-All Root Rot is a fungus and its symptoms are usually noticed in **spring or early summer**. The foliage will **begin to yellow, then a dark patch will begin to expand** in irregular shapes. You will notice the infected grass will have short, **blackened stolons (horizontal stems)** and will lift easily from the soil. Another noticeable sign of this fungus is, even when re-sodded, the turf continues to fail.

To prevent Take-All Root Rot, the most effective approach is to take proper care of the grass. The disease usually becomes a serious problem when the turfgrass is under stress because of unfavorable environmental conditions and improper management—too much shade, herbicide injury, soil compaction, temperature extremes, imbalanced soil fertility, inappropriate irrigation scheduling, improper mowing height or frequency, or any other condition that weakens the turf.²

Encourage healthy root development as much as possible. Make sure that the area drains well at and below the soil surface. Turf areas that remain wet are prone to the disease. Fill in low spots. Improve the drainage and avoid overwatering. It is better to water infrequently but deeply (6 to 8 inches deep) than to give the grass frequent, shallow watering.²

If you suspect your grass is infected with take-all root rot, you should have your soil and grass tested to receive a definite diagnosis. You can do that at any testing lab, or you can utilize this link. <https://plantclinic.tamu.edu/forms/d1178/>

When trying to control take-all, remember the following:

- this is a difficult disease to control.
- use of fungicides may or may not be effective and are better for preventing the disease than eliminating it after it is well-established.
- timing in the use of a preventative program is especially important.
- there is some suggestion that fall applications of fungicides are probably most effective, raking out the infected and dead areas first.
- it is especially important to water fungicides in as deeply as possible to reach the root zone.
- replacing the turfgrass without applying a fungicide will only result in the infection of this disease to the new sod.

Because take-all is not easy to control, both cultural and chemical methods should be considered. Good surface and subsurface drainage are important. Irrigate only when required, and infrequent but thorough watering is preferred to frequent shallow watering. Verticutting to remove thatch also helps. Aerification with a core aerifier alleviates soil compaction and promotes a deeper, more vigorous root system. Do not apply excessive rates of nitrogen fertilizer. Balanced fertility is important. If possible, adjust the soil pH in the upper root zone to a range of pH 6.0 to 6.5. ³

¹<http://soilcrop.tamu.edu/program/turfgrass/>

² <https://agriflifeextension.tamu.edu/library/landscaping/take-all-root-rot/>

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Fort Bend County Master Gardeners are trained volunteers who assist Texas A&M AgriLife Extension Service in educating the community using research-based horticultural information.