

TAKE-ALL PATCH

Seen most commonly in spring and fall when soil temperatures are 60-65°F



Take-all patch, caused by the fungal pathogen *Gaeumannomyces graminis* var. *avenae*, wreaks havoc on lawns in Georgia in summer and fall. Symptoms of disease are most prominent on lawns stressed by hot, dry weather.

Initial symptoms of take-all patch are circular to irregular straw-colored to light brown thinning patches (anywhere from 6 inches to 3 ft in diameter) in the turf.

As the disease progresses, patches may coalesce, eventually killing large areas of the lawn. The patches can reappear in subsequent years causing extensive damage to the turf.

Take-all patch is sometimes confused with Brown Patch (caused by *Rhizoctonia solani*) because of field symptoms. These two diseases can be distinguished from each other by pulling on a yellow or brown blade/leaf of grass.

The blade infected with Rhizoctonia Brown Patch will **give some resistance** when pulled on, whereas turf infected with Take-all will **easily pull** from the ground. Also, the stolons infected with *Rhizoctonia* generally will not be brown/black as with Take-all Patch.



Take-all patch disease causes affected stolons to be easily pulled from the ground because of the root rot infection that takes place. The roots will be blackened, shortened, and rotted (shown above in [Picture 1](#)).

Management

Integrated management is the best approach to preventing and controlling take-all patch in home lawns. Take-all patch severity is closely related to soil pH. Maintaining a soil pH below 6.5, preferably between 5.5 and 6.0, will reduce severity of the disease. Acidifying fertilizers (ammonium-based fertilizers, such as ammonium sulfate) can be used once a pH test has been conducted to determine the nutrient content of a particular lawn. Manganese deficiency also increases the severity of take-all, so supplements of this nutrient can be applied, if needed.

Fungicides are available for homeowners but have limited efficacy and are more beneficial when applied preventively. (When the disease is discovered by the homeowner, it is usually too late for preventive control). Fungicides can also help with subsequent infections.

Since take-all patch is associated with stressed lawns, management for this disease involves good cultural practices, such as:

- 1 Good surface and sub-surface DRAINAGE (core-aeration of the lawn in the spring and removing the cores produced)
- 2 Water infrequently but deeply (watering once a week at a depth of 3-4" is sufficient);
- 3 Proper fertilization (this depends on the turfgrass Genus and species and site conditions- sunny or shady; for example, Centipede grass lawns should only receive 1 lb Nitrogen/year-half in spring and half in fall);
- 4 Proper mowing height for your particular turfgrass species: Centipedegrass 1-1.5 inches
St. Augustinegrass 2-3 inches
- 5 Avoiding application of herbicides to damaged areas of the lawn (St. Augustine, for example, does not have a high tolerance for herbicides);
- 6 More recently, a professor from Texas A&M, Dr. Phillip Colbaugh, has found that applying a sphagnum peat moss topdressing to St. Augustinegrass has proven to reduce symptoms of Take-all patch in home lawns. Additional information on the application and rate (recommended 3.8 cu ft. sphagnum peat moss/1000 sq ft) can be found at [http://dallas.tamu.edu/People/pcolbaugh/PeatmossPoster\(051605\).pdf](http://dallas.tamu.edu/People/pcolbaugh/PeatmossPoster(051605).pdf).
- 7 Lastly, if chemicals must be used, application in the fall (before dormancy) and early spring will prove to be most effective.

Immunox Lawn Disease Control (active ingredient: Myclobutanil) is one registered fungicide available to homeowners at local retail garden centers for control of this disease.

Fungicides containing Triadimefon (Bayleton), such as Bayer Advanced Fungus Control for Lawns, are also registered to help manage Take-all patch.

Remember if applying fungicides to ALWAYS read and follow label directions carefully.

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October, 2006