



Take All Root Rot (TARR) on Turfgrass

Take All Root Rot (TARR) has emerged in the past decade as a significant, often fatal, disease of turfgrass in Texas. St. Augustine grass is especially susceptible, although Zoysia and Bermuda have been victims, too. It is a fungus with symptoms appearing mostly in the summer, though the disease actually spreads throughout the lawn in the cooler months of fall and spring. The symptoms show up first as yellow uneven patches in an otherwise green lawn. The ultimate result can be that the lawn dies in patches between one and ten feet in diameter. The roots will be shortened, discolored, and eventually blackened and shriveled. To properly diagnose TARR, a sample of the *green* lawn (sod) about a foot square, taken from the edge of a “sick” spot, may be brought into the Natural Gardener, where we will look under magnification for the mycelial strands of the fungus. Please call first for the availability of a diagnostician.

Take All Root Rot can be associated with excessive nitrogen fertilizer, especially urea-based, synthetic fertilizers, and the use of synthetic broadleaf herbicides. Please consult our *Organic Lawn Care Guide* for more information on fertilizing and weed control with natural products.

Remember that St. Augustine is a poorly adapted plant in our area, and is susceptible to a long list of diseases and pests. Consider minimizing the lawn by planting native or well-adapted trees, shrubs, xeric plants, and/or ground cover instead. The following options for treatment of TARR are gleaned from existing research, experience, and basic organic disease control guidelines. You may use one or all of the following steps, listed in order of importance and effectiveness for controlling Take All Root Rot:

1. Spray the affected areas, and several feet of surrounding lawn, with **Beneficial Streptomyces**. For best results, spray once every 4 – 6 weeks until control is achieved. Thereafter, apply every spring and fall for prevention. Apply initially at the stronger rate – ask us for more complete instructions. Beneficial Streptomyces is a bacterium that colonizes the roots and actively suppresses and controls diseases such as Take-All and Brown Patch.
2. As an annual maintenance practice, topdress the entire lawn with compost, only when the weather is below 85 - 90 degrees. Apply a good quality compost, ½” or less across the lawn. One cubic yard covers 650 square feet at ½” depth. Good quality manure compost contains beneficial living microorganisms that are instrumental in disease suppression. It may be applied to dead patches anytime.
3. Spray the entire lawn with our aerobically-brewed **Compost Tea**. This is a product that we have available only Thursday through Sunday, and it should be used within 8 hours of purchase. For the most effective disease control, spray compost tea undiluted once a week for the first month, then once a month thereafter.
4. Apply **Peat Moss** to the entire lawn at the rate of one 3 cubic foot bale per 400 square feet, and water in. Peat moss has a very low pH. Take-All prefers our alkaline soil, so lowering the soil pH to be more acidic can suppress the fungus. Texas A&M University studies have shown this treatment to be effective, especially when combined with an iron supplement. We recommend Maxicrop Seaweed Plus Iron.

Remember, any liquids should only be sprayed first thing in the morning or late in the evening.

Best results are obtained when the lawn is treated at the first sign of Take All Root Rot, and treatments are continued as directed. Please let us know if you have any further questions or feedback.



Control of Brown Patch Fungus

Brown Patch is a fungal disease that affects mostly St. Augustine grass. The good news is that it is usually not fatal. The bad news is that it looks ugly. The symptoms are brown, fairly distinct circular spots in the lawn occurring during cool, moist conditions of the **autumn and early spring**. The St. Augustine runners (stolons) are healthy & green, but the leaves turn brown and rot. Often, brown patch shows up in the same area each year. During the hot season, the lawn usually recovers. If most of these symptoms are present, then your lawn most likely has brown patch. Therefore, use the tips listed below to ensure

A healthy lawn is the best preventative for brown patch. Starting an organic lawn care program is the first and best step towards a healthy, disease-resistant lawn. At **anytime of the year**, check and correct these conditions first.

1. **Overwatering** contributes to brown patch. St. Augustine needs to be watered once each five days in the summer, and once every seven days or more the rest of the year. Only 1" to 1½" of water should be applied each time. Use shallow tin cans, such as tuna fish cans, to measure how long it takes to apply 1" to 1½" of water. If there is less than 4" of soil underneath the lawn, it may need to be watered more often. Apply a half-inch of soil- or sand-based topdressing once or twice a year to deepen the soil.

2. **Watering** should be done only in the early morning. Watering at night promotes brown patch.

3. **Fall Fertilizing** should only be done in late September or early October. In addition, only organic fertilizers should be used. An organic program preserves the beneficial, disease-fighting soil organisms.

4. Apply a ½" of **compost** in the spring (and/or fall) to improve soil and lawn health and add beneficial microbes. Likewise, apply our **aerobic compost tea** at least four times a year.

5. **Aerate** the lawn after topdressing to improve drainage in clay soils. **Mowing high** (no shorter than three inches) is recommended for St. Augustine. Also, **fill in low spots** with soil, one-half inch at a time.

Mark your calendar for **early to mid-September** to use these preventative measures. Even if the brown patch symptoms are already present, these products can help cure or prevent the recurrence of brown patch in the spring.

1. **Corn meal:** Apply one to two pounds per 100 square feet over the affected area and beyond. Corn meal feeds a beneficial microorganism in the soil called Trichoderma that fights brown patch.

2. **Biological Fungicides:** Apply according to package directions. These beneficial bacteria help fight off dozens of fungal diseases. These are the most effective fungal controls for lawn diseases.

3. **Aerobic Compost Tea.** Apply undiluted one to four times a month in the brown patch prone areas. Compost tea must be used within 8 hrs of purchase.

These safe and simple steps can help manage Brown Patch. Let us help you bring your lawn to its most vibrant, healthy state! Alternatively, let us show you how to transform your lawn into a beautiful, drought-tolerant landscape.