



## American Golf Course Turf Thatch Removal

**Thatch Treat (TT)** is a microbial thatch remover that delivers natural biological thatch control for professional turf systems seeking an alternative to verticutting and core aeration. This microbial and enzymatic formulation combines beneficial bacteria and fungi for thatch decomposition, producing cellulase, xylanase, and laccase enzymes that break down lignin, cellulose, and hemicellulose within the turf thatch layer. As the thatch softens, these microbes consume and convert organic residues into stable humic compounds, improving soil structure, infiltration, and nutrient flow. By biologically degrading fibrous organic matter throughout the profile, Thatch Treat delivers complete, uniform thatch reduction while enhancing firmness, infiltration, and turf resilience without the disruption, downtime, or labor of mechanical methods.

- **Accelerates Thatch Decomposition:** Harnesses beneficial microbes that secrete lignocellulose-degrading enzymes to convert thatch and mat into stable organic matter.
- **Improves Surface Firmness and Playability:** Reduces spongy turf and restores firm, smooth playing conditions across greens, tees, and fairways for consistent ball roll and traction.
- **Improves Water and Nutrient Flow:** Breaks up the dense thatch barrier, improving gas exchange, infiltration, and nutrient availability in the top 20 mm of the soil profile.
- **Enhances Soil Biology and Structure:** Supports a balanced turf microbiome that sustains ongoing organic matter reduction and soil health improvement.
- **Reduces Labor and Disruption:** Provides continuous biological thatch control between topdressings, reducing the need for frequent verticutting or coring while keeping turf surfaces playable.
- **Supports Sustainable Turf Management:** A natural, environmentally friendly thatch control solution compatible with IPM and BMP programs; safe for greens, fairways, sports fields, and lawns.

**Problem:** Overgrowing thatch layer in high-value golf course turf needs to be treated.

**Result:** Without the use of labor-intensive verticutting, after 40 days treatment, thatch layer was reduced from 3 inches to 0.5 inches. Golf course turf had noticeably greener color.



Before application (on 9/5/2012), the thatch layer is about 3 inches (7.5cm)



After 9 days (18/5/2012), thatch layer is reduced by 1 inch (2.5cm). Reduction rate is 33%



After 43 days (21/6/2012), thatch layer is reduced by 2.5 inches (6.3cm). Reduction rate is close to 85%