# THATCH·ZYME®

## Application

- Apply 0.4 ounces THATCH·ZYME per 1,000 sq. ft. in 2 gallons of water biweekly
- Apply 0.8 ounces THATCH·ZYME per 1,000 sq. ft. in 2 gallons of water monthly
- Water into the thatch layer after application
- *Note*: for convenience, pairs well with the timing of soil surfactant sprays

## Testing Site Recommendations

Select an area of interest and treat part of the area with THATCH·ZYME and leave an area for comparison as the untreated control. On golf courses, this is best performed by splitting a green or tee in half.

**Thatch degradation trials (3-6 months):**

Area selection criteria: Visibly thatchy, problem area

Tests: OM246 soil testing and pictures of soil profile (flat soil profiler with ruler next to profile)

- Prior to initiating the trial
- 3 months after initial application
- 6 months after initial application (if necessary)

**Thatch maintenance trials (>1 year):**

Area selection criteria: Well-maintained area, looking to increase performance/reduce disruptive practices.

Tests: OM246 soil testing

- Prior to initiating the trial
- Beginning and end of growing season

**Other factors to evaluate:** Increased water infiltration, reduced soil hydrophobicity, decreased disease pressure, improved firmness, increased root mass.

**Comments:** The enzyme is active as long as the ground is not frozen, but efficacy will increase with higher soil temperatures. In cool season grasses, thatch accumulation happens fastest in the spring and fall, with a natural decrease in organic matter during the summer months. In warm season grasses, thatch accumulation is fastest in the summer months. Organic matter soil testing needs to be performed relative to a control or over an annual basis to avoid misinterpretation due to season variation. Additionally,

organic matter soil testing measures the amount of organic material in the soil. Thatch, roots, and humus are all organic materials. There is no “good” percent OM and it varies depending on the system. Samples with similar percent organic matter can look completely different when looking at the soil profiles.

# OM246 Soil Sampling Instruction

OM246 measures the organic matter composition at depths of 0-2 cm, 2-4 cm, and 4-6 cm.

## Pulling the Soil Samples

We recommend taking 5 to 10 soil samples using a 3⁄4" to 2" diameter soil probe from two locations:

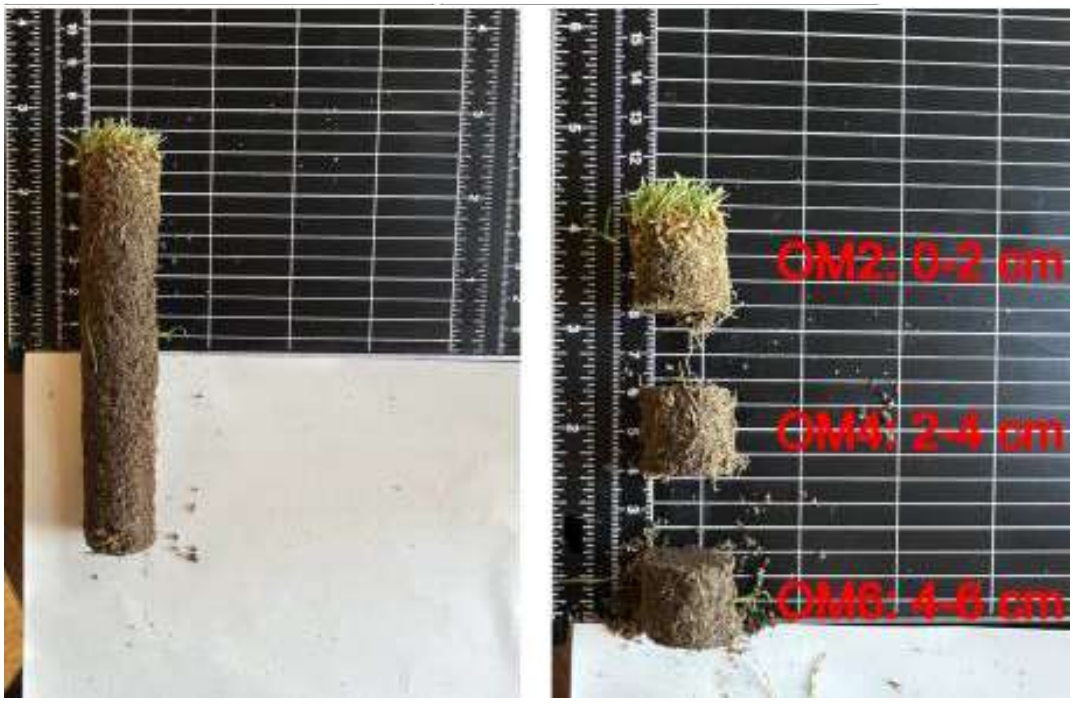
**(1) The area that receives treatments (Treated).**
**(2) A comparable area that does not receive treatment (Control).**

Samples should be taken randomly from each quadrant and the middle of each area. Be careful not to compress the cores.

*IMPORTANT: Keep the treated and control cores separate throughout processing.*

## Cutting the Soil Samples

For each sample use a sharp knife to cut the core at 2 cm below the soil surface, 4 cm below the soil surface, and 6 cm below the soil surface. The **soil surface** is the top of the soil and the point where the grass comes out of the ground. The 0 point is measured from the top of the soil, not as the top of the grass. Grass leaf tissue should be left intact on the 0-2 cm sample. See picture below.




## Bagging the Soil Samples

**Label six separate bags**: OM2 treated, OM4 treated, OM6 treated, OM2 control, OM4 control, and OM6 control. Additionally, label the course name and testing location (e.g. XYZ Golf Club Tee #1).

(1) Combine 0-2 cm treated slices and place in the OM2 treated bag (2) Combine 2-4 cm treated slices and place in the OM4 treated bag (3) Combine 4-6 cm treated slices and place in the OM6 treated bag (4) Combine 0-2 cm control slices and place in the OM2 treated bag (5) Combine 2-4 cm control slices and place in the OM4 treated bag (6) Combine 4-6 cm control slices and place in the OM6 treated bag

Ship the samples to soil testing laboratory for analysis. THATCH-ZYME can perform soil sample analysis in the United States.

For more information about sampling, see the following document:

https://www.asianturfgrass.com/project/om246/om246_sampling_instructions.pdf

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