THATCH CONVERSION TO SOIL FROM MICROBIAL ACTIVITY

COMAND provides the environment in turfgrass that encourages natural processes to decompact the rootzone.

COMAND Facilitates Thatch Reduction

Compaction, leading to poor infiltration rates, a build-up of thatch and anaerobic conditions, are inbuilt design flaws of most sand based golf greens and sports fields.

Verticutting and core aerification provide a physical solution, but these procedures are labor-intensive, disruptive, temporarily reduce playability, and can result in lost play and lost income.

Thatch is dead grass and roots that accumulate and form a layer at the top of the rootzone. This buildup of organics reduces percolation rates and prevents oxygen from permeating into the rootzone, which typically leads to Black Layer. Anaerobic bacteria produce hydrogen sulfide gas from the sulfates applied with most chemical fertilizers. Hydrogen sulfide can combine with iron and magnesium to form highly toxic compounds, which kill the root system and prevent new roots from penetrating to a desirable depth. A shallow root system leads to poor nutrient uptake and drought stresses during dry conditions.

So how is adding COMAND, which contains even more organic matter, going to alleviate the problems associated with thatch? The first misconception to knock on the head is that organic matter is bad. It is not.

The key to easy turf management is to get the natural processes required to degrade organics to work in the largely artificial environment of a sand-based rootzone were the necessary microbes are missing.

COMAND contains a vast array of microbes, which decompose organic matter, converting thatch into plant food, humus and organic acids, increasing CEC and retaining fertilizers and supporting natural processes that create free draining, friable rootzones.

An acre of grass with 1 inch of thatch has 138 cubic yards of organic matter available to convert to plant food and humus. Thatch is mostly lignin, which needs fungi and actinomycetes to digest it and break it down. COMAND is extremely rich in both. These bacteria and fungi produce polysaccharides to help them adhere to surfaces and to prevent them from drying out. The polysaccharides are sticky substances, which clump fine sand particles together, forming air space in between.

Fungal hyphae grow through the rootzone pushing sand particles apart allowing the transport of oxygen, nutrients and water through the rootzone.

The combination of good soil biology and ample levels of soil organic matter provides countless benefits to the turf manager. Virtually all natural processes in the soil are interlinked. When one element is missing, troubles start. In short, good soil organic matter is essential to healthy turfgrass, and can make the turf manager's job much easier.

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