## <u>Compost Topdressing & Sustainable Lawn</u> <u>Care</u>



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Topdressing by definition is the application of any product on the top of any surface, such as sand on a street, salt on a parking lot, fertilizer on a lawn and compost on a sports field.

Today, compost topdressing is unique as a landscape maintenance practice because it closes the loop in the ecological cycle of sustainability. Compost topdressing takes the product compost (once a waste stream) and applies it to the soil as an amendment to improve the entire soil structure. Compost topdressing also minimizes fertilizer and pesticide inputs and has a corrective affect on soil compaction. The natural soil system is an asset that if managed correctly by landscape contractors can reduce expenses and maximize profits.

## How it works

Though fertilizing is technically a topdressing, there are differences in the main objectives between topdressing and fertilizing. Fertilizing's main objective is to provide plant nutrients to produce plant growth. Topdressing's main objective is to improve the soil's structure. With that being said, it must be noted that both fertilization and topdressing can have an impact on the other in real life. For example, compost has nutritional benefits that also feed plants like a fertilizer, as well as amend the soil structure.

Looking at compost topdressing as an amendment practice to the soil structure can help contractors better understand how it can work to their benefit.

Soil structure is comprised of four basic materials, which are sand, silt, clay and organic matter (OM). So from a topdressing amendment point of view, our topdressing materials then are sand, silt, clay and OM (compost) or any blends of these.

Compost can be produced from any biodegradable organic matter. It pays to access compost from an experienced compost producer. PHOTOS: ECOLAWN

Sand topdressing is used in leveling surfaces, improving soil porosity, covering up the roots of warm-season grasses and supporting the grass blade stand. This application is performed on sports fields, golf greens and tees and warm-season lawns.

Silt and clay topdressings are often components of various blends in order to repair drainage issues or for specific purposes like clay used on baseball diamonds and pitching mounds.

Compost topdressing, on the other hand, is used for the management of OM in the soil in order to enhance soil health. This application is used in agriculture and horticulture, on crop fields, lawns, sports fields and golf courses.

The basic three components of sand, silt and clay make up the 12 soil classifications. And each soil classification has varying characteristics with inherent limitations. The unique OM component and its inherent adhesive holding property can make any soil type healthy and productive.

OM is better understood as the process of decomposition of biomass that ends in humus formation, an asset in all soil types. The OM percentage in a soil, in turn, heavily improves the soil pH and cation-exchange capacity (CEC), which make up the soil system's horsepower. And though the OM percentage in the soil structure analysis is small in comparison to the three other components, its benefits are quintessentially enormous. When the appropriate percentage of OM is preserved in a soil (5 percent to 10 percent), the soil is healthy and strong energy-wise, but at the same time very fragile when exposed to extreme weather conditions and human impacts, such as sporting activities along with routine cultural practices.

Periodic applications of compost topdressing add organic matter to lawns and enhance soil health and turfgrass vitality. PHOTO: ECOLAWN

It is imperative to understand that the OM level in the soil is the microbial habitat and sustenance, and therefore the soil's protective buffer against stress caused by weather, activities and routine horticultural practices. For example, the best mowing practice has established the one-third cut rule. But when normal circumstances cause that rule to be broken, the OM buffer in the soil can step up to the plate to provide food energy to the grass plant (via the microbe). Mowing always causes stress on the grass plant, from which it must recover, and reduces the photosynthesis leaf surface, the leaf's energy production chamber. Therefore the management of OM is like an insurance or

asset, balancing out normal routine cultural procedures and activities.

## Protecting your soil assets

Now compost topdressing is not a cure-all, but it is a valuable cultural tool for preserving and increasing the OM level in soil. However, it would be an enormous task to increase OM levels by compost topdressing alone. It would take something like 20 tons of good compost just to raise the level by 1 percent on a 1 acre field.

Compost topdressing should be a routine maintenance practice toward sustainable implementation. Studies have found that light monthly compost applications have far better results then fewer heavier applications.

The fastest way to increase soil OM is with new root growth, and compost is a great medium for germinating seed. New grass roots are also great aerators for compacted soils. This is nature's ecological way to produce and maintain OM in the soil. Every spring and every fall, nature goes to seed and then drops its leaves or lets the above part of a plant die off as a topdressing amendment. Routine overseeding combined with compost topdressing is the quintessential soil asset builder, just as it's seen in nature.

## Some of the benefits of proper OM levels in the soil include:

- Physically holds the soil together humus adhesive qualities
- Increases water and nutrient holding capacity
- Increases microbial population, which increases mineral nutrient availability
- Reduces the density of soil and minimizes problems
- Improves soil porosity, buffering soil vulnerability

Compost topdressing can greatly reduce input costs and maximize soil assets so they work for your clients. Compost topdressing can become the key that closes the cycle of sustainability. And compost topdressing as an amendment to the soil is an OM management cultural practice.