



ADVANCED PROPRIETARY ORGANIC AMENDMENT

PRODUCT DESCRIPTION

COMAND is truly a one-of-a-kind, bio-engineered, yet completely natural organic amendment, which can be utilized to replace peat in sand-based rootzone mixes for golf course and sports field construction.

With its stabilized organic matter, excellent water holding capabilities, slow release nutrients, and vitally important microbiology, COMAND will accelerate turf establishment and encourage consistent healthy growth.



SPECIFICATIONS

EXCLUSIVE PRODUCTION PROCESS

COMAND is produced through the utilization of a **precise proprietary inoculum**, an exclusive composting process known as the **Modified Static Aerobic Pile (MSAP®)** method, and enhanced **curing and reinoculation techniques**.

PROPRIETARY INOCULUM

Contains a broad array of enzyme producing bacteria, brings about a **unique phenomenon**, which reverses the physics of the temperature generation within a compost pile. The microbes first populate the outside edges of the windrows and progress towards the center. Windrow decomposes from the outside in. Speeds up decomposition rates by a minimum 30% and coupled with significantly less turning, results in a **dramatic proliferation of microbes** and provides an end product with populations of **beneficial microbes** often times a 1000x high than traditional composts.

STRICTLY CONTROLLED PROCESS

COMAND is manufactured through the **controlled aerobic**, biological decomposition of biodegradable materials. The product undergoes mesophilic and thermophilic temperatures, which **eliminate pathogens and weed seeds**, and **stabilizes** the carbon such that it is beneficial to plant growth. Temperatures and moisture levels are monitored daily.

PRECISION SCREENING

COMAND is screened into its various grades utilizing **Doppstadt SM 726 trommel** units. These machines have completely **horizontal drums**, using an **auger** instead of gravity to move product through the drum. Because material isn't lifted and dropped, **spearing is practically eliminated**. Another important feature is a **patented load-sensing control** device, which makes sure that a consistent flow enters the rotating drum again preventing spearing. Doppstadt's have **four separate hydraulic drives**, allowing the speeds of conveyors and the drum to be changed independently. Consistent particle size provides **exact uniformity** in organic matter percentage, infiltration rates, and both water-filled and air-filled porosity in a rootzone mix.

CERTIFIED QUALITY

Analytical testing is carried out monthly and is conducted by a US Composting Council (USCC) Seal of Testing Assurance (STA) certified laboratory. Parameters include: pH, soluble salts, nutrient content (total N, P2O5, K2O, Ca, Mg) trace minerals, moisture content, organic matter content, bioassay (maturity), stability (respirometry), particle size, pathogens and trace metals.



QUALITY STANDARDS FOR COMAND

Parameter	Range	Testing Method
pH	6.0 – 7.5	TMECC 4.11-A
Moisture Content	35% to 50% (wet weight basis)	SMEWW 254DB
Organic Matter	30% to 50% (dry weight basis)	TMECC 5.07A
Soluble Salt Concentration	<5 ds/m (mmhos/cm)	TMECC 4.10-A
Maturity	Meet or exceed the minimum standard for mature or very mature compost	
C:N Ratio	<14.1	TMECC 05.02-A
Seedling Emergence (Germination)	100%	TMECC 05.05-A
Seedling Vigor (Growth Rate)	100%	TMECC 05.05-A
Maturity is the degree or level of completeness of composting. Maturity is in part, affected by the relative stability of the material but also describes the impact of other chemical properties on plant development. Some immature composts may contain high amounts of free ammonia, certain organic acids or other water-soluble compounds which can limit seed germination and root development. All uses of compost require a mature product free of these potentially phytotoxic components.		
Stability	Meet or exceed the minimum standard for stable or very stable compost	
CO ₂ OM Evolution	<2.5 (mgCO ₂ -C/g OM/day)	TMECC 05.08B
CO ₂ Solids Evolution	<1.0 (mgCO ₂ -C/g TS/day)	TMECC 05.08B
The stability of a compost is important in determining the potential impact of the material on nitrogen availability in soil or growth media. Most uses require a stable to very stable product that will prevent nutrient tie up and enhance oxygen availability in the rootzone.		
Nutrient Index (AgIndex)	>10	N/A
The nutrient index is obtained by dividing the total nutrients (NPK) by the amount of salts (Sodium and Chloride). If the AgIndex is above 10, nutrients optimal for plant growth will be available without concern of sodium and/or chloride toxicity. Composts with an AgIndex of above 10 are good for increasing nutrient levels for all soils.		

COMAND is a mature product that is carefully prepared to be highly beneficial to both plant growth and soil biology. With an extensive range of skills, our team of executives and specialists at Life Soils, offers the very best in technical assistance, as well as, a vast practical expertise spanning the fields of composting, microbiology, agronomy, horticulture and agriculture.

BENEFITS OF USING COMAND

- Supplies stabilized organic matter
- Improves soil structure and porosity, thus creating a better plant root environment
- Increased root density and length
- Increases moisture infiltration and permeability, thus helping to maintain percolation rates and relieve compaction
- Improved water holding in light soils, providing greater drought resistance and more efficient water utilization
- Unlike peat, COMAND will rehydrate fully, should it temporarily dry out
- Increases cation-exchange capacity (CEC), thus improving the soils ability to hold nutrients
- Supplies beneficial microorganisms
- Aids the proliferation of soil microbes, which assist in Thatch reduction
- Contains humus, assisting in soil aggregation and making nutrients more available to plants
- Buffers soil pH
- Improved wear tolerance, promotes faster turf establishment and recovery rates
- More even turf density and color, green-up without excessive top growth
- Complimentary to other management programs, provides for more efficient utilization of fertilizers and other inputs

APPLICATIONS

New Construction: COMAND can be utilized to replace peat as the organic component of a sand-based rootzone media for golf course and sports field construction. COMAND provides saturated hydraulic conductivity and total porosity that meets USGA recommendations. can also be incorporated into existing soils to greatly improve characteristics and accelerate turf establishment.

Maintenance: COMAND can be utilized for topdressing fairways, tees, greens, sports fields, lawns, and as a component of divot mixes. It will encourage consistent growth and regeneration of damaged turf, boost performance in weak areas, improve strength and rate of germination when overseeding, can accelerate transition from winter dormancy, and will hold moisture in potentially problematic dry areas, such as mound tops and bunker faces.



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