FUNCTIONAL SOILS

Product Overview

Every plant is a world unto its own. Microscopic organisms inhabit each plant, helping them adapt to disturbance. If disturbed, simple to use microbial products can give plants the advantage; this is what we do at Functional Soils (FS). We are building biology in unnatural places, taking what we know is possible in science and bringing it into the world. After conducting rigorous field science, we find the correct microbes, and synthesize them into safe products for your use. This biotech made accessible. A data-driven scientific solution empowering you to improve plant and soil health.

This product contains several beneficial endophytes, isolated from natural environments, from a genus with no known pathogens. Endophytes are a type of fungus that live in the soil and in the spaces between plant cells, which can form symbiotic relationships with plants, residing in the roots, shoots, and leaves of plants with no apparent negative effects. FS microbes are an economical way to make your plants more adaptable, more resilient, and better supported when stressed.

What can this product do for your plants?

- **Enhance germination:** this product will help break down seed coats, increasing germination and initial plant growth
- **Increase Root Mass:** more complex root mass allows better use of nutrients and water
- **Nutrient Utilization:** our endophytes increase bioavailability of nutrients and micronutrients to the plant
- **Increase Stress Tolerance:** this product will assist with environmental stressors, such as drought or prolonged heat

Directions for Use

Golf Course: Greens

Purpose: Support root mass, thatch breakdown, and resilience to high traffic, low cutting heights, and environmental stress.

Timing: Use every 3-4 weeks throughout the growing season, the product is efficient in the shoulder months as well. Use 5-7 days after Fungicide applications to reestablish beneficial microbes. Can be tank mixed with most fertilizer and bio stimulant applications

Method: Standard spray application is appropriate. Drench rates apply. Product needs to soak into the rootzone profile with sufficient moisture.

Rate: Each pouch will provide an application for approximately 60,000 square feet (5575 sq.m). 2 x 200g pouches will be sufficient for a full set of greens (18 holes).

1. Empty the contents of both portions of the pouch into to 20 L of water.
2. The product will self-agitate but additional mixing may be required for the microbes to fully dissolve.
3. Add bucket to applicator tank with the amount of water normally applied/recommended to greens of your size.
4. Apply using a sprayer with an appropriate nozzle to the predetermined area. This is generally a drench nozzle with the rate being 2 g/1000 sq. ft.(8 litres/100 mt2) of total applied product. Additional moisture may be added via irrigation etc. after product application.

Golf Course: Fairways

Purpose: Decrease thatch. Enhance root mass, efficient nutrient use, Increase resiliency to stress and improve recovery from traffic.

Timing: Initiate program at spring green-up or start of active growth. Continue through the season, emphasizing times of stress (summer heat, transition, winter prep).

Method: Sprayer (boom or walk-behind) with appropriate nozzles to ensure uniform coverage.

Rate: Each pouch will provide a single application of 60,000 -120,000 square feet. Multiple applications are recommended. Mix as per greens instructions and vary the applied rate accordingly.

1. Empty the contents of both portions of the pouch into to 20 L of water.
2. Follow steps 2-4 as listed in ***Golf Course: Greens*** instructions.

Golf application tips:

- Try and avoid applying during midday heat).
- Apply after aerification/topdressing to help microbes colonize new pore spaces and organic matter.
- Apply approximately 5-7 days after Fungicides are used Use to enhance balanced fertility programs.
- After application light irrigation, and rainfall, will help move microbes into the root zone..

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Environmental, Storage & Handling Considerations

- Store in a cool (ideally 4–20 °C), dry location out of direct sunlight. Can be kept in freezer.
- Do not expose to temperatures above 35 °C for prolonged periods.
- Keep capsules in sample container when not in use.
- Heavy chemical inputs (especially broad-spectrum fungicides and some soil sterilants) can reduce microbial populations; allow an interval between such treatments and microbial applications whenever possible.
- For best performance, integrate with: Proper pH management, adequate organic matter, balanced fertilization and irrigation.

Safety & Precautions

- Keep out of reach of children and pets.
- Avoid contact with open wounds.
- Wear standard protective equipment: long sleeves, gloves, and eye protection when mixing and applying.
- Wash hands and exposed skin thoroughly after handling.
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice if irritation persists.

Disclaimer

Use only as directed. Performance may vary depending on soil conditions, climate, and management practices. The user assumes all risk from use, storage, or handling of this product when not used according to label directions.

Ready for the next step? Let's talk!

For all product and sales enquiries: info@functionalsoils.com | www.functionalsoils.com