ProGanics™ BIOTIC SOIL MEDIA™

ProGanics™ Biotic Soil Media™ is designed as an alternative to topsoil on challenging and difficult-to-access sites. ProGanics contains ingredients that will accelerate development of depleted soils/substrates with low organic matter, low nutrient levels and limited biological activity. This Engineered Soil Media™ (ESM™) provides a foundation for vegetation establishment and more effective erosion control.

Key Ingredients:

Renewable Thermally Refined® Bark and Wood Fibers —

Provides organic matter, high moisture retention for fast germination and phyto-sanitized fibers to provide maximum soil coverage without weed seeds and pathogens

Biochar —

Derived from pyrolysis of wood sources (heating under high temperatures) — to create stable, porous particles that demonstrate a high Cation Exchange Capacity and a high ability to hold water and nutrients, while providing prime habitat for beneficial bacteria and fungi

Cross-Linked Polysaccharide Biopolymers —

High-loading, fast mixing and excellent shoot-ability due to increased water-holding capacity, viscosity and bond strength of the media matrix

Proprietary Formulation of Fast-Acting and Sustained Release Soil Building Components Containing Seaweed Extract, Humic Acid and Endomycorrhizae —

Grows vegetation quickly and has been proven under demanding conditions in a wide variety of environments

Organic Matter	**90%**
Water-Holding Capacity	**800%**
pH	**6.0**
C:N Ratio	**100:1**
Vegetation	**850%**
Exotoxicity	**48-hr LC_{50} > 100%**

1. **Is ProGanics a Biotic Soil Amendment (BSA)?**
   No, ProGanics is a next generation **Biotic Soil Media (BSM)** containing recycled and renewable bark and wood fibers with biotic soil amendment ingredients and soil building components. ProGanics contributes to both immediate and sustained long-term germination and growth establishment while providing a more complementary matrix to bond with Profile HECPs for more effective erosion control.
2. **How do you determine how much ProGanics to apply?**
   Erosion control starts with a soil test. The percentage of organic matter will determine the ProGanics application rate. Soils with >3% organic matter may not require ProGanics.
3. **Does ProGanics replace the need for fertilizer or Profile Prescriptive Agronomic Formulation?**
   No, fertilizers and PAFs should be applied as usual based on soil testing results.
4. **Some BSA manufacturers tout a Carbon to Nitrogen (C:N) ratio around 30:1 to be ideal. ProGanics has a ratio of 100:1. What does that mean?**
   A C:N ratio of <30:1 is good for composting and more rapid degradation. However, ProGanics has been designed with components engineered for quick assimilation (< 30:1) as well as sustainable constituents for surface coverage, long-term establishment and soil building characteristics (>30:1). The result is a more harmonious and holistic technology to replace expensive and hard to find topsoil sources.
5. **When do you apply seed when using ProGanics?**
   Seed should be applied with ProGanics and PAFs and below the erosion control product.
6. **Can ProGanics be applied by itself?**
   Yes, but slope gradient will determine need for erosion control products to be applied on top of ProGanics using PS^3 analysis.
7. **Is there any curing or drying time required before applying a hydraulic erosion control product above ProGanics?**
   No, but allowing the ProGanics some time to dry will facilitate application on steep slopes where there may be a potential for slippage.
8. **Many BSA products have a tendency to separate in flight and de-water upon application. Does ProGanics maintain its structural integrity during application and go down without de-watering?**
   ProGanics contains thermally-refined bark and wood fibers that are stabilized with cross-linked polysaccharide biopolymers to insure water-holding capacity, viscosity and bond strength. This ensures the matrix mixes easily and shoots with no separation and de-watering.
9. **Compost and peat have been shown to cause shallow rooting issues. Does ProGanics have these issues?**
   No, our amendments are designed to open up the soil and encourage deeper root development and penetration. As with any project the soil should ideally be prepared/roughened to reduce compaction and facilitate deeper root growth.
10. **Should ProGanics be mixed with Flexterra or ProMatrix for a 1-step application?**
    No, erosion control effectiveness could be diluted or hindered as well as the timed release of he engineered components of ProGanics.