

**THE WORLD'S MOST ADVANCED
ENGINEERED SOIL MEDIA™**



ProGanics™
BIOTIC SOIL MEDIA™

THE MOST ADVANCED — ENGINEERED SOIL MEDIA™ —

Designed as a topsoil alternative that brings depleted soils back to life!

Profile Products, the world leader in soil modification, erosion control and vegetation establishment has engineered a revolutionary product that is a soil growing media providing a proprietary combination of key soil building components.

ProGanics™ Biotic Soil Media™ (BSM™)

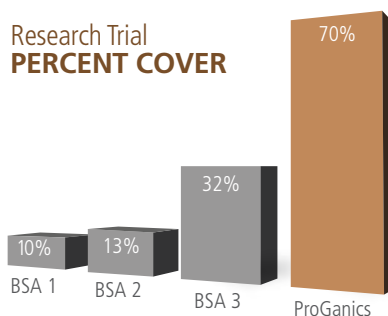
is designed as an alternative to topsoil on challenging and difficult-to-access sites. ProGanics will accelerate development of depleted soils/substrates with low organic matter, low nutrient levels and limited biological activity. This Engineered Soil Media™ (ESM™) helps build soils to their fullest potential for vegetative establishment and more effective erosion control.



PATENT PENDING. ProGanics Biotic Soil Media is a combination of recycled Thermally Refined® bark and wood fibers with a proprietary blend of biopolymers, biochar, seaweed extract, humic acid, endomycorrhizae and other beneficial constituents. These components work synergistically to create a holistic solution to improve the agronomic potential in the rhizosphere. Unlike peat harvested from fragile wetlands, all components of the ProGanics Biotic Soil Media blend are naturally derived and renewable, and engineered to optimize moisture retention, growth and establishment of vegetation.

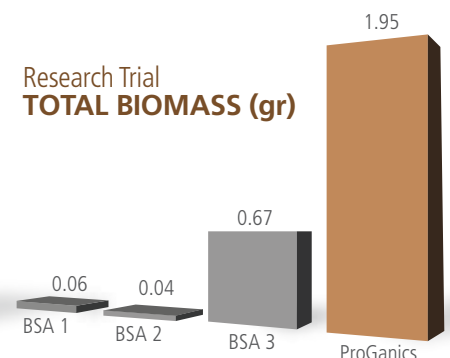
ProGanics outperformed leading Biotic Soil Amendment (BSA) products in replicated random block design greenhouse trials for Total Percent Cover and Total Biomass. No BSA performs like ProGanics BSM when it comes to establishing sustainable vegetation. Please contact Profile Technical Services for additional information on this study.

Research Trial
PERCENT COVER



The ProGanics plots achieved twice the cover of the next best BSA.

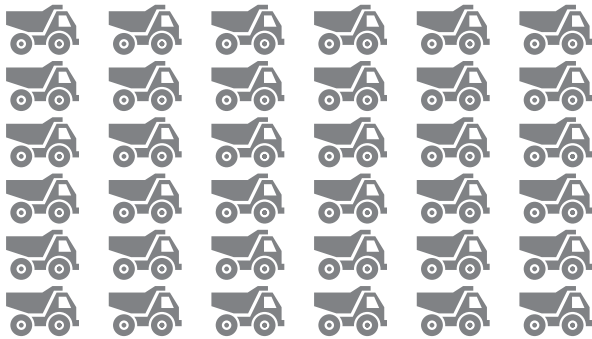
Research Trial
TOTAL BIOMASS (gr)



Biomass was three times greater in the ProGanics plots.

— GAME-CHANGING ADVANTAGES —

Many construction sites have depleted soils with low organic matter that require more than just fertilizer and other amendments to establish sustainable vegetation. Placing costly imported topsoil over depleted soils has historically been the preferred option to establish vegetation. Using ProGanics Biotic Soil Media in place of topsoil on challenging and difficult-to-access sites will not only save money and time, but will also provide a growing medium that helps establish vegetation.



36
TRUCKS
— OF —
TOPSOIL*

= 2
TANKLOADS
— OF —
PROGANICS*

*Amount needed to cover 1 acre (0.4 ha) with 4 in (10 cm) of topsoil; based on a 15 cubic yard capacity dump truck.

5,000 pounds of ProGanics provides the same amount of organic and soil building components per acre as 36 loads of rich topsoil. *Separation layer will be required on highly deficient soils.*

3,500–5,000 lb/ac · 3,900–5,600 kg/ha
*3,000-gallon capacity hydroseeder equipped with gear or positive displacement pump.

FREE SOIL TEST

Effective erosion control starts with soil testing to determine deficiencies and excesses which can result in diminished vegetation establishment. Regrettably, the majority of erosion control project designs fail to require soil testing. Fortunately, you can log on to www.ProfilePS3.com to access FREE soil tests and recommendations to improve soils, pick the right plant materials, select the right erosion control techniques, and calculate the amount and cost of material needed. There is also informative assistance on proper installation, inspection and maintenance of your site.



MILD TERRAIN



On flat to gentle terrain where erosion potential is lower, ProGanics can be applied with seed, fertilizer and soil amendments covered with a basic Profile® hydraulic mulch or erosion control blankets as recommended from your PS³ soil test and design analysis.

CHALLENGING SITES



For steeper slopes or where erosion potential is greater, an application of ProMatrix™ EFM™ or Flexterra® HP-FGM™ over ProGanics will provide near perfect erosion control with increased functional longevity and growth establishment.



Quick and Easy Loading



Consistent Slurry



Smooth Shooting

ProGanics mixes quickly into a viscous, dark-brown slurry that is easy to apply and meter. The high-loading rate of 100 pounds per 100 gallons of water (45 kg / 379 L) on hydraulic equipment with gear or positive displacement pumps and 75 pounds per 100 gallons (34 kg / 379 L) on centrifugal pumps means fewer tank loads per acre (hectare). And unlike many high load, low yield Biotic Soil Amendment products, ProGanics is designed to retain water for slurries that go down evenly and resist dewatering.





ProGanics™ Biotic Soil Media™ (BSM™) is engineered to provide a balanced formulation of soil-building media that contributes to both rapid and sustained vegetation establishment while complementing performance of hydraulic and rolled erosion control products. Testing at the Utah Water Research Laboratory (UWRL) has shown that ProMatrix™ Engineered Fiber Matrix™ (EFM™) applied over ProGanics resulted in 99% erosion control effectiveness with greater germination and growth versus a leading Biotic Soil Amendment applied and tested under the same conditions.

The ProGanics patent-pending, non-toxic formulation has been innovated using time-proven components from the horticultural and erosion control industries. Key ingredients include:

- **Renewable Thermally Refined® Bark and Wood Fibers**—to provide organic matter, high moisture retention and maximum coverage; phyto-sanitized to eliminate weed seeds and pathogens
- **Biochar**—derived from pyrolysis of renewable 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**—to increase 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**—have been proven under demanding conditions in a wide variety of environments

RECOMMENDED APPLICATIONS

- Replacement of Costly or Difficult to Obtain Topsoil
- Replacement of Compost, Peat, Manure and Other Sources of Organic Material
- Development of Soils with Low Organic Matter (< 5%)
- Rapid Establishment and Sustained Growth of Vegetation
- Typically Installed Beneath HECs and RECs as Growing Media

Typical Application Rates:

% Organic Matter	lb/ac	kg/ha
< 0.75	5,000	5,600
≥ 0.75 & < 1.5	4,500	5,040
≥ 1.5 & < 2.0	4,000	4,480
≥ 2.0 & < 5.0	3,500	3,920

Always conduct a soil test to determine agronomic needs. Soils with organic matter >5% typically do not require ProGanics. Depending on the test results, it is typically advisable to apply fertilizer, pH neutralizers and/or biostimulants with ProGanics.



**GREEN DESIGN
ENGINEERING™**
EARTH-FRIENDLY SOLUTIONS
FOR SUSTAINABLE RESULTS™

Green Design Engineering™ is a holistic approach, combining environmentally beneficial design and ecologically sound products with agronomic and erosion control expertise, to provide the most effective, customized and cost-efficient solutions for erosion control and vegetative establishment.



Put Green Design Engineering into action. PS³ is the industry's first and only web-based design and selection tool that integrates erosion and sediment control engineering with agronomic excellence. Log on to www.ProfilePS3.com to find the right solution for your site.



Solutions for your Environment™

For technical information or distribution, please call 800-508-8681. For customer service, call 800-366-1180.

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PATENT PENDING



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