

Comparison of Physical Soil Improvers

TERRACOTEM – UNIVERSAL

Water absorbents	39.5%
Volcanic stones	49.75%
NPK fertilizer	9%
Trace elements	~1%
Unknown	~ 0.75%

SMARTGRO SOIL IMPROVER

Water absorbents	39%
Vermiculite	38%
NPK + TE	11%
Zeolite	10%
Bacterias	0.5%
Trichoderma	0.25%
Mycorrhizae	0.25%
Humates	1%



SmartGro Soil Improver

- Fine particle size, up to 1.5 mm, allowing easier integration into soil
- Evenly blended formulation, ready to use without pre-mixing
- Designed for consistent distribution through the root zone
- Water absorption performance comparable to leading products, based on internal testing
- Balanced fertiliser profile formulated to support plant growth without restricting hydrogel performance

Key Components & Functional Benefits

Vermiculite

- Dual-grade vermiculite selected for nutrient contribution
- Lightweight and highly absorbent
- Gradual release of potassium, phosphorus and magnesium
- Contributes additional trace elements and silicon
- Supports moisture retention without impacting hydrogel efficiency

Zeolite

- Agricultural-grade zeolite included for nutrient and moisture management
- Helps retain nutrients within the root zone
- Supports gradual release aligned with plant uptake

Beneficial Soil Microbiology

Each kg contains selected strains of beneficial bacteria:

- *Bacillus licheniformis*
- *Bacillus methylotrophicus*
- *Bacillus megaterium*

Included alongside plant-based bio-stimulant compounds to support early root development and soil activity.

Additional Functional Features

Mycorrhizae & Trichoderma

- Selected strains capable of co-existing within the root zone
- Commonly used in plant establishment and soil conditioning
- Applied directly where plant roots can access them

Humates

- Derived from lignosulfonates rich in humic compounds
- Support root initiation and nutrient uptake
- Contribute to improved soil biological activity

Nitrogen Source

- Slow-release nitrogen (urea-formaldehyde)
- Designed for gradual availability over extended periods
- Supports sustained plant development

Application Compatibility

SmartGro Soil Improver is designed for use across the same application areas as comparable soil conditioners, including:

- Tree and shrub planting
- Landscaping and amenity planting
- Turf and lawn establishment
- Container growing and nursery use

Application rates and methods follow standard industry practices.

Performance Notes

- Water retention and nutrient holding capacity are influenced by soil type, climate, and application method
- Performance comparisons are based on internal testing under controlled conditions

The photos below show the differences between Terracotem and SmartGro Soil Improver after watering the mixtures to their maximum water-holding capacity.

Our mixture has a dark green color due to the presence of additives – Mycorrhizae, Trichoderma, bacteria, and humates.

TERRACOTEM – UNIVERSAL



SMARTGRO SOIL IMPROVER



Our soil improver is used in the same way as Terracotem – including the application area, recommended dosage, method of mixing into the soil, and other practical aspects of use.