

# **Products of Soil Secrets LLC**

**Organic Designation and Standards** The products of Soil Secrets LLC meet the benchmark of the USDA's NOP (National Organic Program) and have been approved by USDA NOP Certifying Agents for use on Certified Farms. If not already done, your certifier will need to contact Soil Secrets LLC to perform their due diligences process, so that you can use our products as inputs on your farm.

## **Mycorrhizal Products**

Mycorrhizal fungi that associate with plants provide a beneficial relationship for both the plant and the fungus. Mycorrhizal fungi have a network of mycelium that grow far and wide into the soil, reaching nutrients and water that the plant cannot reach on its own. They are known to help plants uptake nutrients, nitrogenous compounds and essential elements (phosphorus, iron, zinc, copper, etc.) that are out of reach or chemically tied up. This fungi-plant alliance stimulates plant growth and development and increases tolerance to stresses such as heat, cold, wind, drought, soil disease and parasitic nematodes. In return the plant provides carbohydrates and a place to live for the fungi. The Mycorrhizal fungi use the carbohydrates for their growth and to make a molecular substance called glomalin, a sticky glycoprotein that contributes to improved structure of soil. The longer this association continues the better the soil structure becomes with increasing levels of both 'Active Carbon' and Humic carbon in the form of Humic substances. However, in soil that has been disturbed by human activity, the quantity of mycorrhizae decreases drastically so that there are not enough of them to produce a significant benefit on plant growth and health, hence the importance to compensate by inoculating them back into the landscape. The two mycorrhizal products provided by Soil Secrets are non-pathogenic to plants, humans, livestock or poultry and contain no animal manures or ingredients derived from GMO plants.

**Application:** Inoculation is best achieved by placing the spores in direct contact with the seed or roots of the potential host plant. Dusting spores onto the seed or bare roots of transplants is effective and can be done dry. Can also be mixed into a hydro-mulch slurry for hydroseeding.

EndoMaxima<sup>®</sup> Mycorrhizal Concentrate Designed for agriculture, landscape construction, sports-field construction, mine reclamation or erosion control projects. EndoMaxima is a concentrate of spores representing a generalist Glomus species that is global and which will always work with plants that can associate with a Endo (VAM) type mycorrhiza Guaranteed to contain at minimum 1,450,000 viable spores of *Glomus intraradices* per pound! Every attempt is made to screen EndoMaxima of all root tissues, dead fungal tissues, soil, and other impurities, all of which can contribute to loss of spore viability. It is not recommended that this product be dispersed via a drip irrigation system, as the spores are large and could plug up the system. Best method of use is to apply directly onto the seed before sowing.

### Soil Secrets LLC.

Office Address: 9 Gilcrease Road, Los Lunas, New Mexico 87031 Plant Address: 3084 Highway 47, Los Lunas, New Mexico 87031 505 550-3246, Email: <u>soilsecrets@aol.com</u> Web: <u>www.soilsecrets.com</u> **MycoMaxima Professional**<sup>®</sup> Designed for professionals, this product is easy for contractors to apply during the construction of the landscape. **MycoMaxima** is a concentrate blend of Endo (VAM) and Ecto species of Mycorrhizal spores capable of inoculating seed or the roots of the majority of hardwood, softwood, perennial, turf and annual plants used in landscaping.

**MycoMaxima Gardening**<sup>®</sup> Most of us now appreciate the value of food grown in healthy soil managed with good wholesome materials, producing healthy plants because the soil is healthy. This product is designed for the homeowner who desires the best garden on the block with the healthiest soil. Using the same powerful microbes the pros use, but formulated for maximum results in your yard.

#### **Soil Amendments**

Soil Secrets manufactures three grades of a Humic acid product. Commercial TerraPro<sup>®</sup> and Agriculture Grade TerraPro<sup>®</sup> and SupraH Complex<sup>®</sup> a liquid product also known as Earth Ambrosia<sup>®</sup>. For many decades, Humic Acid products have been provided to agriculture, but until Soil Secrets did the research, nobody has been able to purify the substance and describe the species characteristics on a molecular level; required information to gauge what the true potential and value might be. In fact, the molecule had never been described because university and commercial soil labs are unable to perform a true chemical analysis on a Humic Acid. If you can't measure and see what you've made, it's difficult to know that you have successfully made something of merit! Michael Martin Meléndrez, founder and Managing Member of Soil Secrets, felt that he needed to prove that Humic Acids were truly a powerful molecular substance. So, he hired scientists and recruited a DOE National Lab to help him conduct experimental tests to prove that Humic Acids are indeed real and that the Humic Acid formulations of Soil Secrets are exceptional and really work. To learn more about Humic Acids, see Michael's 3-D Geospatial presentation on Humic Acids when he's lecturing in a community near you.

More Benefits of Humic Acid:

- 1. Solubilize occluded (tied up) minerals from the soil, making those minerals more accessible to your crop. Minerals solubilize into solution are chelated onto the Humic Acid molecule and held in a plant available form until needed.
- 2. Have a huge Cation Exchange Capacity, helping to increase the availability of plant nutrients.
- 3. Have a detergent quality and can help remove heavy metals and xenobiotics from water and soil.
- 4. Can help microorganisms survive and perform in normally anaerobic (without air) environments by acting as electron acceptors for microbial respiration.
- 5. Help arid zone soils retain water.

**Agriculture Grade TerraPro**<sup>®</sup> Made for agriculture and other large industrial uses, the active ingredient of this product is the high concentration of Humic Acids that can function as a powerful biologic chemical of the soil, involved with hundreds if not thousands of bio-geo-chemical processes. Humic acids are super molecules of soil that are essential for a healthy and productive soil and this product, formulated by Soil Secrets is guaranteed to have the highest biologic value of any Humic Acid product in the industry! Developed using Femto joule chemistry down to the subatomic structure of the molecule, by a research team of Professional Chemists, Theoretical Physicists and the Technology Transfer Program of a National Lab. The objective of this product is to make it economically feasible to fortify the soil with Humic Acids that work.

**Commercial grade TerraPro**<sup>®</sup> (known as Earth Magic<sup>®</sup> in New Mexico retail nursery stores) is our flagship product. TerraPro is a unique concentrated humus product that contains a broad spectrum of beneficial mycorrhizae fungi and soil enzymes along with a high percentage of Humic Acids. The formulation of Humic Acids in this product are guaranteed to have unique biological and chemical characteristics that will provide exceptional benefits to any soil. The objective of this product is to fortify the soil with the best Humic Acid product possible at the highest concentration possible; because they are powerful biologics that can jump start the life of your soil. In addition, a full blend of both Endo (VAM) and Ecto type mycorrhizal spores are included in Commercial Grade TerraPro at a spore count of 50,000 spores per 1000 sq. ft. if used at label rate. The science is clear that most plants and most landscapes including desert plants need a significant level of Humic Acids in the soil as it's this substance that defines a top soil. Top soil is a horizon of soil that is rich in Humic Substances and according to research, "Humic Acids are essential for a healthy and productive soil" - Journal of Chemical Education December 2001, Soils Sustain Life! А current analysis by a certified lab can be provided that can verify the percentage of Humic Acids as well as all other related data. Research has proven that Mycorrhizal products can make any landscape dramatically more drought tolerant and the plants healthier, as it's the mycorrhizae that do most of the hard work of finding water and minerals in the soil. Many research abstracts can also be provided to support these benefits. Mycorrhizae help your landscape plants endure the stresses of the environment such as heat, drought, dehydration and poor soils and they are also critical and essential for the long term soil building process to occur. For a more concentrated Mycorrhizal formulation appropriate for direct inoculation into the planting site of any plant, see our new product MycoMaxima®

\* Almost without exception both Humus and Mycorrhizae are either missing or are weak in most manmade landscapes including farms. Together they are excellent partners in helping to restore soil productivity.

All the products of Soil Secrets are designed to support and complement the '*Biological Management of Soils*' without contraindicating how Humic Acids or Mycorrhizal fungi benefit the site. All our products will help develop and sustain a healthy 'Soil Food Web.'

#### Here are some more products of Soil Secrets LLC.

**Protein Crumblies**<sup>®</sup> Nature's best source of nutritional calories for feeding the soil is protein. Derived from selected vegetable proteins, Soil Secrets has selected this product for the best ratios of amino acids that can provide the highest protein efficiency value possible. Soil Microorganisms are part of the Soil Food Web and Protein Crumblies can provide these microorganisms a high quality protein with the highest % Nitrogen per unit of Protein. This product has a crude protein content providing a source of slow release organic Nitrogen. The N can become part of the 'Soil Food Web' once totally liberated by the action of the primary, secondary and tertiary decomposers (soil microorganisms), and many plants can uptake the amino acids derived from this protein as part of their nitrogen budget.

**TTP Supreme Compost**<sup>®</sup> **100% wholesome ingredients.** If made with quality ingredients and tight quality controls, compost can be an excellent source of organic nutrients. Never use a compost product without first examining the analysis of the product to see if it meets your needs. TTP Supreme Compost is a nutrient dense product that's been triple screened, providing a clean and fine

particle size product, that's also clean enough to be used in hydroseeding equipment. City bio-solids (human waste) are not allowed in this product, which helps us guarantee you that disease contamination is minimized. This product has been tested by Western Labs for soil disease and has consistently tested clean and free of those risks. This product is nutrient dense and needs to be used sparingly, as a little goes a long way! A full assay of tests showing maturity, stability, Humic acids, organic matter, nitrogen, major and minor nutrients, and carbon to nitrogen ratio is available upon request by emailing us at soilsecrets@aol.com

**SUPRAPLEX®** An Organic Compost Broth Concentrate. Unlike a Compost Tea, the objective of this product is to have a <u>high concentration</u> of 'Organic Source Nutrients' that can be injected with typical drip irrigation equipment, or sprayed onto foliage using orchard sprayers. A nutrient analysis is provided on the label for this product. The product is not advertised or promoted in any way as a microbial inoculant. A full soil disease report is available that consistently shows zero detectible levels of the targeted pathogens. Product is made from our TTP Supreme Compost with the only added ingredient being water. All nutrients in this product are indigenous to the compost used. SUPRAPLEX can also be used as a carrier foliar spray for other nutrients such as zinc and iron.

SupraH Complex<sup>®</sup> (retail name is Earth Ambrosia<sup>®</sup>) a liquid Humic Acid and colloidal organic nutrient solution. Organic colloids are decomposed organic substances broken down to their smallest particle size. Organic colloids will coat soil particles, provide a Cation Exchange Capacity and help prevent the nutrients of fertilizers from leaching. Humic Acids and Organic Colloidal substances will also prevent the nutrients from compost and green manures from leaching. Liquids of Humic and Organic Colloidal substances move into the soil faster than a dry material, which is why we provide humus in this form. It is designed to be used as a spot treatment when faster results are needed, but for optimum amounts of Humic Acid the dry humus products of Earth Magic and TerraPro can contribute more technical material per dollar spent and therefore are the products of choice for larger areas.

**Earth Nectar®** A super drink for the soil! There's no question about it, microbes rule. They run all the major chemical cycles on earth by making the enzymes that serve as catalysts to many of the important chemical reactions in the soil. **Earth Nectar** is a broad spectrum of soil based enzymes made by microbes. This product also contains TTP Supreme Compost, whole kelp, humus, and plant extracts, each dissolved into a rich nectar for the soil. Earth Nectar and Earth Ambrosia can be blended together in equal amounts, diluted with water and sprayed onto the soil as a drench. Do not use more than 1 gallon of either product per 1000 sq. ft. of application.

**Earth Worm Castings Nature's soil elixir that enormously benefits plant and soil life!** A natural source of soil wealth including many indigenous microorganisms, enzymes and much more. You can never use too much Worm Castings to build a better garden. If you're dealing with a sick plant, or a precious plant that you want to be extra careful about fertilizing, worm castings are your answer. With low nutrient levels and a low salt index, it's almost impossible to hurt a plant by over using worm castings!

#### For more information and a source of purchase:

Soil Secrets LLC, 505 550-3246, email: soilsecrets@aol.com