

— Building the — Soil Environment for —



To produce high value compost, you need to know what makes compost valuable. The real value of compost comes after organic matter breakdown — the polymerization or build-up of humic substances that provide an environment in which a diverse population of beneficial microbes, supplemented by inoculation, can thrive.

Humus Chemistry

At the heart of the MBS Sustainable Balanced Soil Fertility System is high quality humified compost. We use compost as the medium to deliver the chemical nutrients called for by the Baseline analysis. The humic substances in the compost react with the chemical nutrients. This keeps the individual nutrients from reacting with one another or becoming tied up. This method of nutrient delivery expedites bringing Base Saturation Levels into balance, which, in turn, positively impacts the physical structure of the soil. Humic substances also exert magnetic forces that expand clay colloids, increasing soil porosity.

Microbial Environment

The microbiological profile of the soil is influenced by the microbial environment. We need to manipulate the microbial environment so it favors the microbe species that are beneficial to plant growth, yield, and quality and unfavorable for plant pathogens. Managing air and water in the soil, eliminating the use of materials that are harmful to beneficial microbes, and continuously growing either a cash or cover crop improve the microbial environment. Humus compost produced using the ACS process will add a large and diverse population of beneficial microbes to soil, but more importantly, high quality humus compost builds a microbial environment in which microbes thrive and multiply. For example, to achieve an optimal microbial enumeration, the microbial population in five tons per acre of the finest compost must double a minimum of 15 times to get to the population size recommended for maximum fertility. Compost value has much to do with its microbial profile and everything to do with its ability to build a thriving microbial environment.

Compost Tea

Compost tea, or compost extract, is an economical way to deliver many of the benefits of high quality humus compost efficiently and effectively. Compost tea made with our tea extraction systems is a water-based extraction of the soluble minerals, humic substances, and microbes from humus compost. Microbial food sources are also added to the compost tea to stimulate microbial activity and reproduction. Humus compost tea is a source of diverse beneficial microbes which, along with microbial food sources, multiply numerous times on crop leaves and in the crop's root zone.

Incredible capabilities!

- Holds up to four times its own weight in water.
- Loosens tight soils.
- Solubilizes soil nutrients.
- Holds nutrients in the soil for plant use.
- Increases root mass.
- Brings soil into balance.
- Reduces Weed Pressure.



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