



SOIL FOOD

A soil food is a product which is added to the soil with the objective of feeding the community of soil microbes including the bacteria, the mycorrhizal fungi and the larger animals of the soil such as earth worms. Soil Food needs to be composed of nutritional calories of protein (not empty calories such as sugar) in order to provide the building blocks of all life which are the amino acids.

NUTRITIONAL CALORIES FOR THE SOIL MICROBES

PROTEIN CRUMBLIES

The building blocks of all life including the biota and fungi (mycorrhizae) of soil are amino acids, so in order to provide this nutritional caloric food we use protein from plants.

Amino acids are also part of the nitrogen budget of plants when the mycorrhizal fungi digest protein from other dead biota, insect exoskeletons, etc., and transport the now liquid free amino acids into the host plant.

This product is called Protein Crumbles.

Protein Crumbles is a vegetable source of protein built out of Amino Acids. Amino Acids are the building blocks of all Proteins and all life, essential for the construction of all life on Earth. Protein contains calories used by living creatures as energy, where every gram of protein contains 4 calories of energy.

Within the molecular structure of Protein are the structures called Amino Acids and within the Amino Acid Structure is the part called the Amino which contains Nitrogen. We eat protein because we need Nitrogen just like plants need Nitrogen and the microbes of soil need Protein not only for the Nitrogen, but for the caloric energy.

Protein Crumbles provides the following benefits:

- *Supports Soil Ecology by providing protein needed for the Soil Food Web.*
- *Builds microbial biomassIncreases crop yields*
- *Improves drought tolerance*
- *Improves Carbon Sequestering of the Soil by growing root and microbe biomass.*
- *Improves food nutrient density*
- *Provides Amino Acids which can be used by plants for Nitrogen uptake.*
- *Unlike Nitrogen fertilizers, Vegetable Protein does not have a salt index.*
- *Can replace Salt Index based Nitrogen fertilizer and meets the USDA NOP*
- *Improves the crop/vegetation's tolerance of environmental stress*



SOIL FOOD

A high quality compost containing a minimum of dirt particles, maximizing the organic matter percentage. Provides a significant amount of plant nutrients such as nitrogen, phosphorus, potassium and many trace minerals. Can be used as an organic alternative to feeding a lawn or garden in place of bagged fertilizers.

TTP Supreme Compost

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Compost provides elements of nutrition for plants such as nitrogen, calcium, phosphorous, etc.

However a guaranteed analysis is difficult to do with compost as the receipt of ingredients is impossible to keep exact. Therefore compost is more easily recognized as a Soil Amendment.

Our compost called TTP Supreme is screened to a minimum particle size so it can be used in a hydroseeder, while minimizing plug up problems. The screening process also concentrates the mineral nutrient value by increasing the bulk density of the compost, therefore more compost per cubic foot of product.

All compost contains mineral nutrients and nitrogen so the greater the bulk density the more compost per cubic foot and the higher the nutrient concentration per cubic foot.

Also contains microbial saprophytes that will fortify a sterile soil with microbes for the objective of breaking down organic matter.

Remember, these are not the same microbes that we can provide in our Consortium BioPack product.

Saprophytes are more generally plants, fungi, or micro-organisms more accurately called myco-heterotrophs because they actually parasitize fungi, rather than dead organic matter directly. They live on dead or decomposing matter.