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Assay Descriptions

Total Bacteria: (TB)

The optimal bacterial biomass in the soil varies according to crop, climate and season; if it is not within this range, bacterial inocula or foods may be required.

Total Fungi: (TF)

As with bacteria, the optimal range varies according to crop, climate and season, and may require amendment if outside this range.

Active Bacteria: (AB)

Only that percentage of the bacteria which are currently metabolizing organic compounds are directly nourishing the plants; if this portion is too low, bacterial foods may be required to stimulate the dormant population.

Active Fungi: (AF)

As with bacteria, only those fungi which are currently growing and metabolizing are directly nourishing the plants, so the dormant part of the population may need feeding if the activity is low.

Protozoa: (Prots)

These large single-celled organisms feed upon bacteria and excrete nitrogen in the plant available form of ammonium, so are essential to healthy plant growth. One morphological group, the Ciliates, feed preferentially on anaerobic bacteria, so a high ciliate population may indicate anaerobic conditions which need to be addressed.

Nematodes: (Nem)

A very large group of very small worms, these are everywhere on earth. Of the soil-dwelling species, some cause significant crop damage, some prey on other nematodes, and most graze on bacteria and fungi, cycling nitrogen in plant available form. We count the number in a given weight of soil, and identify them to genus and function.

Mycorrhizal Colonization: (VAM) – Not available until further notice

Over 90% of all plants on Earth form symbiotic relationships with mycorrhizal fungi. These fungi increase the nutrient uptake capacity of the plant and protect it against pathogens. We determine what percentage of your roots are colonized, and also look for signs of disease and other damage.

Qualitative Assessment: (QA)

This fast evaluation does not provide actual counts or biomasses of organisms, but based on a visual scan of populations tells you whether your bacteria, fungi, protozoa and nematodes are present in excellent, good, adequate, or poor numbers.

E. coli:

This common intestinal bacteria has some disease-causing strains, and is an indicator of the presence of other harmful bacteria. We evaluate the number of Colony Forming Units per gram of compost or milliliter of compost tea, to let you know if levels are within or above accepted limits for agricultural fertilizers.

Electrical Conductivity: (EC)

This test indicates the salinity of soils and composts, to let you know if salt levels are acceptable or potentially harmful.

pH:

Different crops have different requirements for soil acidity or alkalinity, and the pH is influenced both by the mineral content and the biology in the soil. This test allows us to advise you on how to supplement your soil to correct the pH for best growth of your crops.

Leaf Organism:

This test determines the effective coverage of organisms on the leaf surface, very useful for before and after comparisons of foliar applications of Compost Tea. Adequate coverage of leaf surfaces helps to reduce disease and pests.