



## **Total Bacteria: (TB)**

The optimal bacterial biomass in the soil varies according to crop, climate and season. If the Total Bacteria is not within this range, bacterial inocula or foods may be required. Bacterial foods: Sugars, molasses and seaweeds. . Incorrect bacterial biomass could also indicate a bacterial bloom (with very high numbers) or toxins present (with very low numbers.)

## **Total Fungi: (TF)**

As with bacteria, the optimal range varies according to the crop, climate and season. If the Total fungal biomass is below range, fungal inocular or foods may be required. Fungal foods: humate products, whole fish products and seaweeds. Low total fungi may also indicate low diversity, and lack of disease suppression.

## **Active Bacteria: (AB)**

Only that percentage of the bacteria which are currently aerobically metabolizing organic compounds are directly nourishing the plants; if this portion is too low, bacterial foods may be required to stimulate the dormant population. This percentage varies from season to season. The numbers tend to be lower in the winter and mid summer.

## **Active Fungi: (AF)**

As with bacteria, only those fungi which are currently growing and metabolizing are directly nourishing the plants, if this portion is too low, fungal foods may be required to stimulate the dormant population. This percentage also varies from season to season. The numbers tend to be lower in the winter and mid summer.

## **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.

## **Mycorrhizal Colonization: Ecto and Endo Mycorrhiza.**

Most plants in farming and horticulture tend towards Endo Mycorrhiza. Over 90% of all plants on Earth form symbiotic relationships with mycorrhizal fungi. These fungi increase the nutrient and water uptake capacity of the plant, boost its immune system and protect it against pathogens. We determine what percentage of your roots are colonized, and also look for signs of disease and other damage.