



## **Total Bacteria (TB)**

The optimal bacterial biomass in the soil varies according to crop. If the Total Bacteria (TB) is not in this range, bacterial inoculum or foods may be required. Bacterial Foods: Sugars, Molasses, Seaweeds and compost. Incorrect bacterial biomass may indicate a bacterial bloom ( very high numbers) or low nutrient cycling (numbers very low).

## **Total Fungi (TF)**

As with bacteria, the optimal range varies according the crop. If total fungal biomass is below range, fungal inoculum or foods may be required. Fungal foods: Humate products, whole fish products (fish hydrolysate) and compost. Low Total Fungi may indicate low diversity, low disease suppression and low nutrient cycling.

## **Active Bacteria (AB)**

Only that percentage of the bacteria that are currently, aerobically, metabolising organic and mineral compounds are directly nourishing plants; if this portion is too low bacterial foods may be required to stimulate the dormant populations. This percentage varies from season to season. le Numbers lower in summer and winter but higher in spring and autumn.

## **Active Fungi (AF)**

As with bacteria, only those fungi which are currently growing and metabolising are directly nourishing the plants; if this portion is too low, fungal foods may be required to stimulate the dormant populations. This percentage also varies from season to season. le Numbers lower in summer and winter but higher in spring and autumn.

## **Protozoa (Prots)**

These microscopic single-celled organisms feed upon bacteria and excrete nitrogen and other minerals in plant available forms, so are essential to healthy plant growth. Ciliates one of the species of this group are known to thrive in anaerobic conditions thus high numbers of ciliates may indicate compaction or overly wet conditions which impact on healthy plant production.

## **Mycorrhizal Colonisation (Ecto and Endo Mycorrhiza)**

Most plants in farming and horticulture are hosts to endo mycorrhiza. Over 90% of all terrestrial plants form symbiotic relationships with mycorrhizal fungi. These fungi increase the water and nutrient uptake capacity of the plant, boost its immune system and help protect it against pathogens.