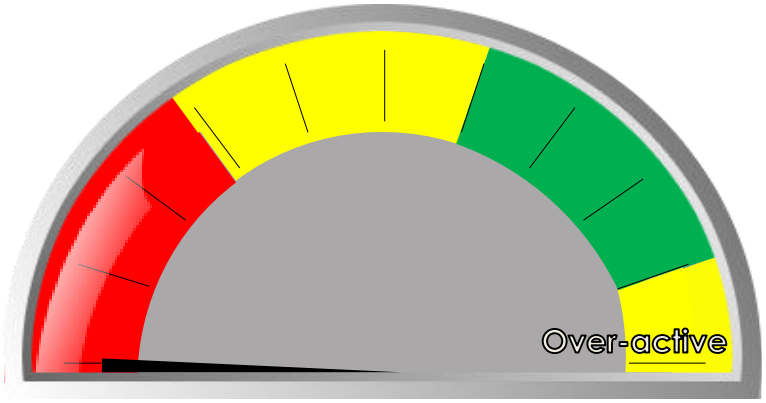
MICROBE ACTIVITY WISE

Customer	0	Agent	0
Sample name	0	Crop	0
Lab no.	0	Date	00-Jan-00

Microbial Activity Indicator



Data

	Yours	Guide
Microbial activity indicator	0.0	80.0

Key

Poor Fair Good

		Yours	Guide
Soil Basal Respiration (7-28 day)	mg C/kg soil	0.0	1520.0
	mg CO_2/kg soil	0.0	5569.6
Soil Microbial Biomass C	mg C/kg soil	0.0	463.6

Comments

The microbial activity in your sample is poor. This could occur if the soil was very dry when sampled or if microbial activity in your soil has been depleted due to farming practices. It could be increased by adopting management practices that favour microbial activity, for example, those that increase soil carbon. The test is a measurement of total microbial activity which includes both fungus and bacteria levels. As the soil nutrition increases then the level of bacteria increases, examination of the soil analysis can indicate benefits or potential problems.

Explanations

The Microbe Activity Wise test measures activity of soil microbes directly from your sample. It measures the amount of carbon dioxide (CO_2) emitted by microbes over time to calculate Microbial Activity, Soil Basal Respiration (SBR) and Soil Microbial Biomass Carbon (C) (SMBC). Most soil microbes under aerobic conditions (the state your soil should be in) convert carbohydrates into energy and CO_2, which they emit as a waste product, just like animals, plants and humans. This is used to calculate the Microbial Activity Indicator (0 to 100) based on known values for soils. Correlations published in scientific journals are also used to calculate soil basal respiration (SBR, 7-28 day) and soil microbial biomass C (SMBC). Soil Basal Respiration is the normal, steady rate of respiration in a soil. Soil Microbial Biomass C is the amount of C held in the microbial biomass. All three values reflect the quantity and quality of soil carbon, and other microbially assistive nutrients in the soil. CO_2 concentration in the atmosphere surrounding many crops is often a limiting factor to (it is not high enough for) maximal plant production during peak growth. Stomata, the pores plants use to take in CO_2, are located on both sides of the leaf (dicotyledons tend to have more on the underside), which allows plants to use the CO_2 emitted by soil microbes as it rises from the soil. Having a good level of microbial activity in your soil not only helps soil processes, but can also help to improve crop growth. Always compare your results with a control sample. Guide values are included as a help, but because a large number of factors affect microbiology the guide levels may not be optimal for your specific conditions. Visit **www.microbelabs.com.au** for more information.

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