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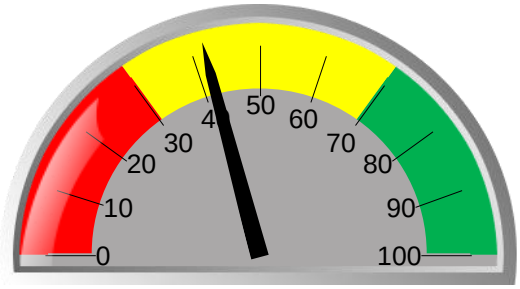
MICROBE WISE

Name: UCQ (Sandrine Makiela) Smple: **22** Analysis no.: **343-22** Date:

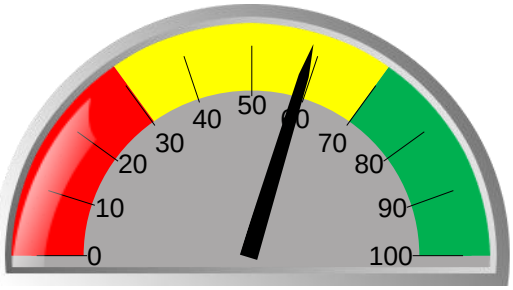
Customer name	UCQ (Sandrine Makiela)	**Sample date**	
Client or treatment name		**Received date**	17/03/2012
Sample or replicate name	22	**Agent**	
Crop or type		**Authorised by**	Dr Maria Manjarrez
Weeks after emergence		**Analysis no.**	343-22

Soil Indicators

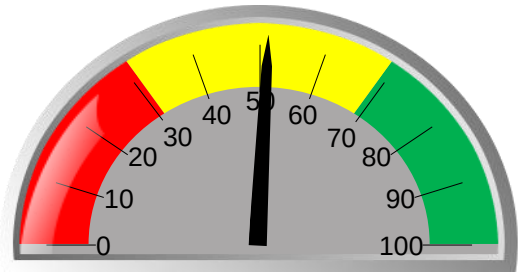
Nutrient solubilisation rate



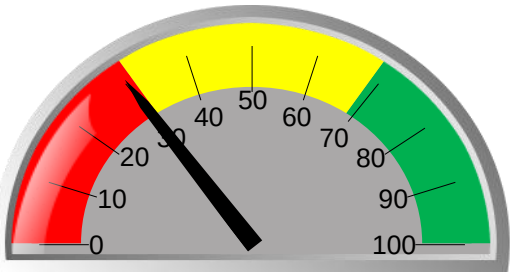
Nutrient cycling rate



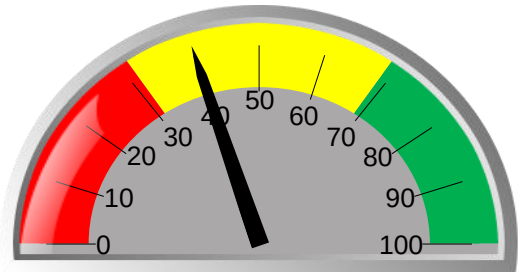
Disease resistance



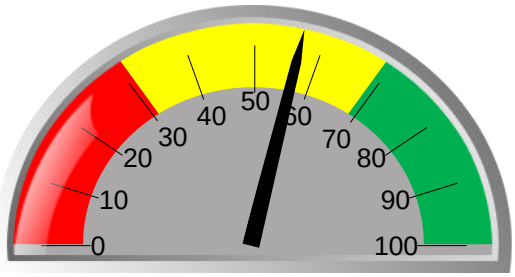
Drought resistance



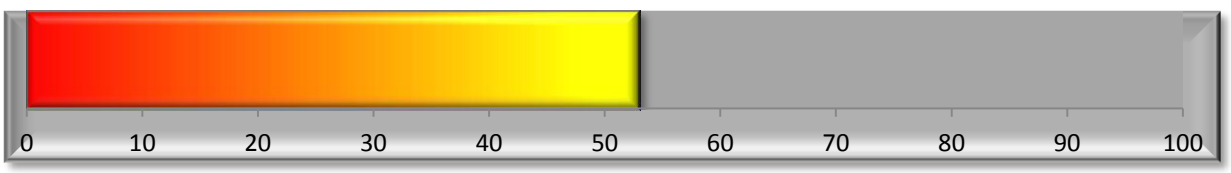
Nutrient accessibility (VAM)



Residue breakdown rate



Overall microbial health



For more information about these indicators visit **www.microbelabs.com.au**

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Key Microbe Groups

Group	Biomass (mg/kg) Yours	Guide
Total microorganisms	**19.1**	50.0
Total bacteria	**3.4**	15.0
Total fungi	**14.6**	33.8
Bacteria		
Pseudomonas	**0.439**	1.000
Actinomycetes	**0.721**	1.000
Gram positive	**2.108**	11.250
Gram negative	**1.259**	3.750
True anaerobes	**BDL***	0.005
Eukaryotes		
Protozoa	**1.116**	1.250
Mycorrhizal fungi (including VAM)	**3.937**	10.000

Useful indicators	Yours	Guide
Fungi : Bacteria	**4.3**	2.3
Total : Anaerobic bacteria	**N/A**	3000
Microbial diversity	**66.1**	80.0

Nutrients held in microbes	Concentration (mg/kg) Yours	Guide
Nitrogen (N)	**1.057**	3.450
Phosphorus (P)	**0.574**	1.500
Potassium (K)	**0.191**	0.500
Sulphur (S)	**0.191**	0.500
Calcium (Ca)	**0.096**	0.250
Magnesium (Mg)	**0.096**	0.250
Carbon (C)	**8.273**	22.688

*BDL = Below Detectable Limit (0.001 mg/kg)

Key

Poor **Fair** **Good**

Comments (Detailed Custom Report available - see Order Form)

The total mass of microbes in your sample was fair to poor. Biomasses of other key desirable microbe groups ranged from poor to fair (Bacteria), to good (Actinomycetes, Protozoa). Actinomycetes help in nutrient cycling and residue breakdown and Protozoa is a good indicator of soil health . The Fungi to Bacteria Ratio was elevated probably due to higher number of fungi compared to bacteria and high organic residues in the soil. Microbial diversity was good, but could be improved. These results suggest that management practices should initially focus on improving general microbial biomass, with emphasis on bacteria. Re-test periodically, and once biomass has improved concentrate on building microbial diversity and biomasses of any other key desirable groups that remain low.

Explanations

The Microbe Wise test measures the biomasses of key microbial groups directly from your sample. It uses molecular ('DNA type') technology to analyse the unique cell membrane 'fingerprint' of each microbe type to identify and quantify key groups important to soil processes. This method is more accurate and precise than other methods, such as direct microscopy or plate culture, because it uses chemical extraction to remove the maximum amount of microbial material from the sample and is repeatable to 0.01% between replicate analyses. It measures organisms that are alive or recently dead (within a few days). 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.