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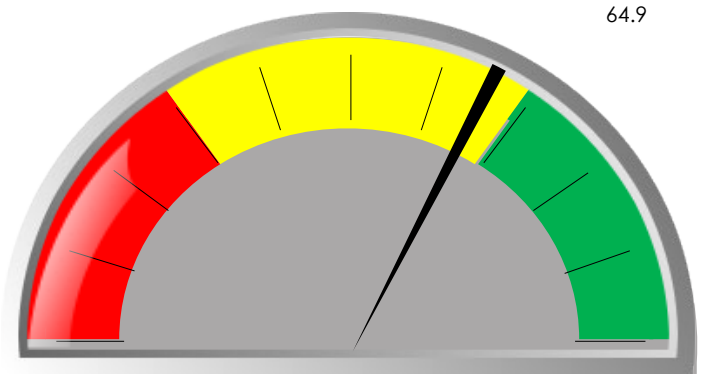
MICROBE WISE FOR COMPOST

Name: **MMAPS** Sample: **Bryant Ussher Eastwell Forest** Analysis no.: **2550-2-MWSC** Date: **17/06/2020**

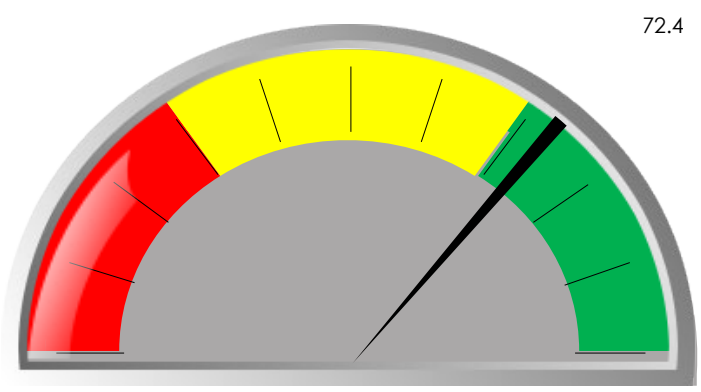
Customer name	MMAPS	**Date received**	17/06/2020
Client name	Bryant Ussher	**Agent**	Microbiology Laboratories A
Sample name	Bryant Ussher Eastwell Forest	**Advisor**	
Type	Soil	**Authorised by**	Dr Maria Manjarrez
Date sampled	15/06/2020	**Analysis no.**	2550-2-MWSC

Compost Indicators

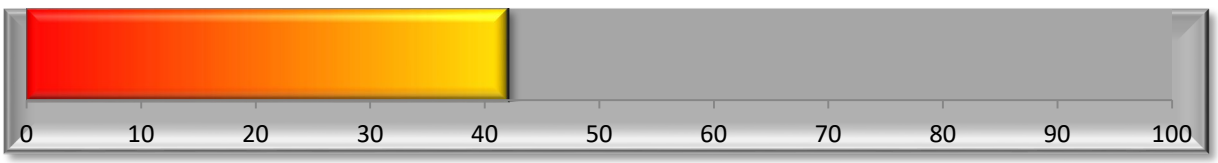
Compost Maturity



Disease Suppression



Overall Microbial Balance



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Name: **MMAPS** Sample: **Bryant Ussher Eastwell Forest** Analysis no.: **2550-2-MWSC** Date: **17/06/2020**

Key Microbe Groups

Group	Biomass (mg/kg) Yours	Guide
Total microorganisms	**23.2**	50.0
Total bacteria	**3.4**	15.0
Total fungi	**19.1**	33.8
Bacteria		
Pseudomonas	**1.146**	1.000
Actinomycetes	**0.708**	1.000
Gram positive	**1.324**	4.000
Gram negative	**2.048**	11.000
Methane oxidisers	**0.000**	0.500
Sulphur reducers	**0.051**	< 0.005
True anaerobes	**0.056**	< 0.005
Eukaryotes		
Protozoa	**0.683**	1.300
Mycorrhizal fungi (including VAM)	**0.000**	10.000

Useful indicators	Yours	Guide
Microbial diversity	**18.6**	80.0
Fungi : Bacteria	**5.7**	2.3
Bacterial stress	**0.4**	< 0.5
Microbial maturity	**64.9**	< 80.0
Disease suppression	**72.4**	< 80.0

Nutrients held in microbes	Concentration (mg/kg) Yours	Guide
Nitrogen (N)	**1.333**	3.450
Phosphorus (P)	**0.696**	1.500
Potassium (K)	**0.232**	0.500
Sulphur (S)	**0.232**	0.500
Calcium (Ca)	**0.232**	0.250
Magnesium (Mg)	**0.232**	0.250
Carbon (C)	**10.640**	22.688

Poor **Fair** **Good**

Key

Comments

Total microbial biomass was fair. Biomasses of other key desirable microbial groups ranged from good, to poor for bacteria in general. Except for Mycorrhizal fungi (VAM), which were not detected. VAM fungi require a living plant host to survive, so their absence is expected in commercial compost. Protozoa often appear after composts have aged for some time, and their presence here may be indicative of maturity. True anaerobes were elevated, which may indicate lack of aeration or waterlogging. The Fungi to Bacteria ratio was highly elevated when compared to the guide, but this may be advantageous if the aim was to produce a fungi-dominated compost. Microbial diversity was poor and needs to be improved. These results indicate that this compost would be a useful amendment, if microbial diversity is improved. This compost may also be helpful to soils with low fungi.

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 and compost 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.

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