Multikraft® PROBIOTICS AUSTRALIA
'It pays to be sustainable'

AG PLUS CONSULTANCY

Report BACE20/1/Bar ***March 2020***

Multikraft Probiotics Australia for soil health and sustainable farming

Background: The trial was in mature macadamia trees.
An application rate of 25L/ha of Microlife per month for four months (Sept-Dec)
In February, a further 25L/ha was applied with the test done 7 days later.

Combined Foodweb Results

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Submission Number: 02-007363 Sample Received: 28/02/2020 Report Sent: Invoice Number: 0

Customer Reference	ID	Dry Weight	Active Bacteria	Total Bacteria	Active Fungi	Total Fungi	Hyphal Diameter	Flagellates	Protozoa Amoeba	Ciliates	Nematod	VAM	TF/TB	AF/TF	AB/TB	AF/AB	Nitrogen	Actino Bacteria
Soil																		
Treated	02-016255	0.730	3.53	271	0	66.1	3.5	19	8	6349	0.14	N/A	0.24	0	0.01	0	50-75	0.34
Treated	02-016256	0.860	1.98	185	0	48.7	3.5	1569	1198	321	0	N/A	0.26	0	0.01	0	50-75	0
Untreated	02-016257	0.880	2.52	125	0	30.0	3	48	4851	0	0	N/A	0.24	0	0.02	0	<25	0
Untreated	02-016258	0.860	1.78	114	0	25.6	3	966	328	0	0	N/A	0.22	0	0.02	0	<25	0

Results and comments:

- **A marked increase in microbial presence, activity and diversity.**
  Any increase in the activity and diversity of the soil microbiome has the potential to bring a wealth of benefits to plant growth and development, particularly during periods abiotic stress such as drought. A more active and diverse rhizosphere mobilises plant nutrients making them more readily available for developing roots. Also, and perhaps most importantly, plant diseases are far less likely to dominate in an active and multi-faceted complex environment.
  Note that independent laboratory tests have demonstrated effective suppression of a number of plant pathogens by individual components of Microlife.

- **A substantial increase in available nitrogen.**
  This could bring a potential saving in farm applied nitrogen; although a monitoring of the crop should show an increased yield over time with this plant available source.

- **Identified sufficient numbers of Actinobacteria in the top layers to be picked - up with commercial processing.**
  These play an important role in the decomposition of organic materials, such as cellulose and chitin and therefore contribute to the organic matter turnover and the carbon cycle.

The MPA program has clearly demonstrated a substantial contribution to the health of the soil microbiome, with the potential for important long-term benefits towards buffering future abiotic and biotic stresses such as drought and disease.

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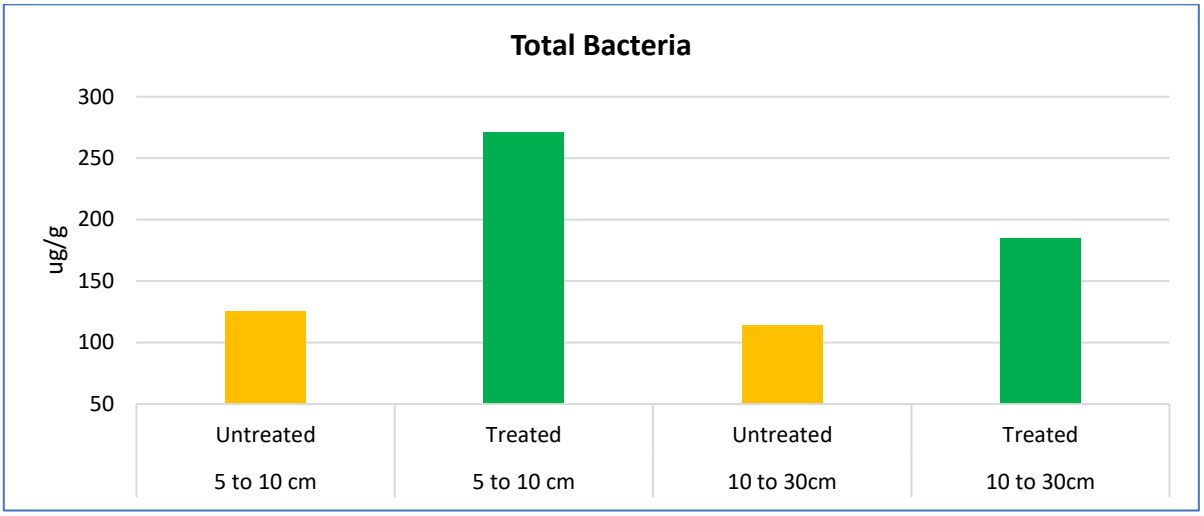

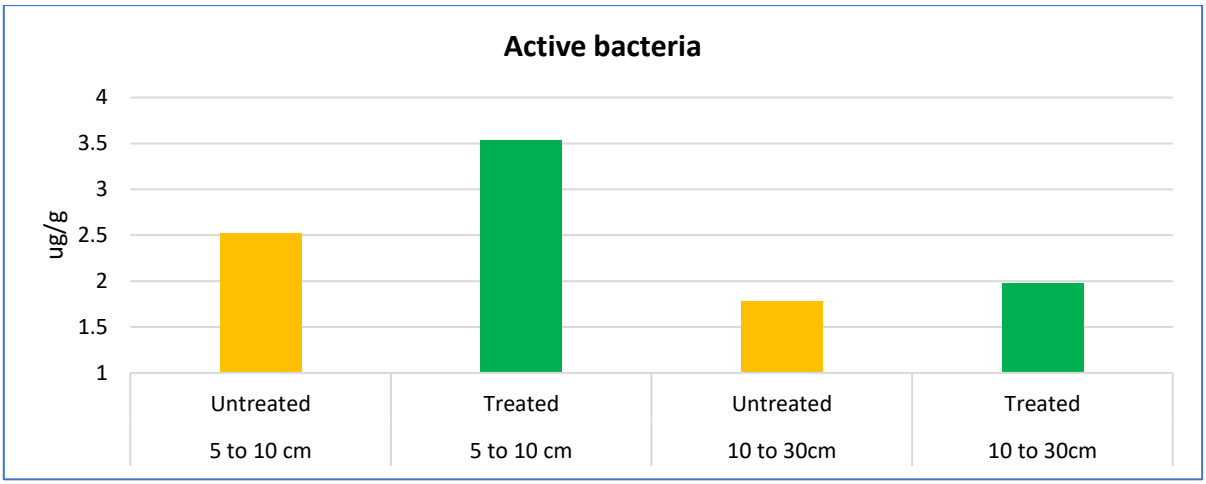

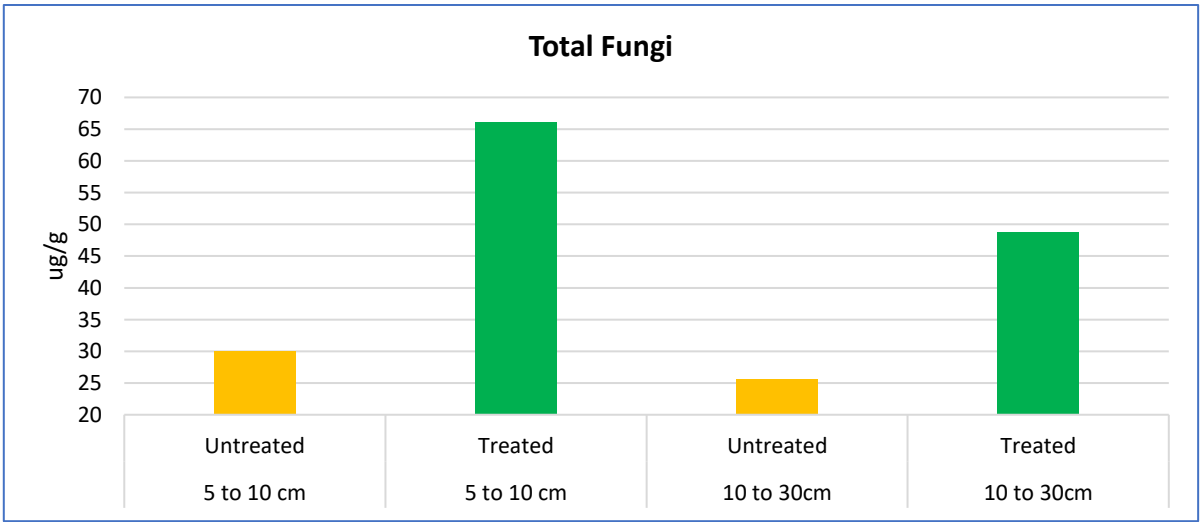

Barworth

Research for Sustainable Agriculture
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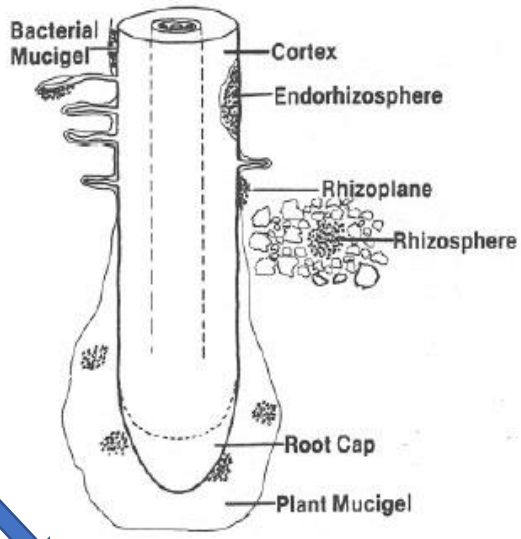

Increase microbial activity

Increase microbial diversity

Increase disease suppression
Increase nutrient availability