



# MACCY BIOCHAR MEMBER BULLETIN

No. 65 – 4 March 2025

Maccy Biochar is a Task Group of the Macclesfield Community Association Inc.

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**75,426 litres biochar made; 36.28 tonnes of CO<sub>2</sub> removed from the atmosphere.**

**Welcome to our 65th Member Bulletin.** In this Bulletin please find our latest news items from here and further afield.

## LOCAL NEWS:

### New Season's Orders:

We are taking Orders now for biochar to be made in the opening months of the new season normally starting in May.

### Renmark Workshop – May 2025:

Details to be advised.

### Facebook & Instagram assistance:

We need to appoint a new social media manager to take over our Facebook page and open an Instagram account. The person obviously needs to be proficient in Facebook and Instagram matters but we also think that a good working knowledge of biochar and Maccy Biochar in particular is necessary. So would you like to put up your hand? Preferably on a volunteer basis but we are prepared to consider other suggestions.

## Grassroots Grants funding to support local communities:



Grassroots Grants funding, supporting local communities to protect, restore and rejuvenate the local environment. The Hills and Fleurieu Landscape Board is pleased to announce the 2025 Grassroots Grants program.

Whether you're working independently or as part of a group, if you're making a positive impact on land, water, and nature, this could be your opportunity to secure essential funding.

**Applications open on 4 March at 10AM and close on 15 April 2025 at midday.**

There are two tiers of grants available - small grants up to \$4,000, and larger grants for projects up to \$20,000.

For everything you need to know about the application process, including guidelines, FAQs and application forms, visit our [website](#).

**Ed. This could be the opportunity for a new community biochar group to obtain start-up funding.**

## FROM USA

### Biochar & compost:

#### From Gordon West -

"We have been working for a number of years now with Dr. David Johnson, a major promoter of compost materials that are fungal dominant, for the purpose of restoring healthy microbiology to depleted soils.

When I first attended a presentation by David, I had just begun my adventures with biochar, and when he explained how fungi worked to store carbon in the soil, and to make soil more productive, without artificial "fertilizers", insecticides, or herbicides, I was blown away. But the next thought was, "what are we wasting time making biochar to add to the soil when biology can do a far better job at less cost?" The next day it occurred to me that the priority value in biochar was in its ability to transport and shelter the biology while it does its amazing work at community building in the soil.

We have incubated a collaborative partner, named New Earth Project, which has taken on the task of creating J-Su compost at a significant scale, in a local circular economy model that includes "liability biomass" acquisition, processing (into mulches,



MOUNT BARKER DISTRICT COUNCIL

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composts, biochar, and energy), food waste utilization, distribution, and education.

Gordon West

“You never change things by fighting the existing reality. To change something, build a new model that makes the old model obsolete.”

– R. Buckminster Fuller

**Ed: This approach could be of interest to our regional waste management authorities.**

## FROM AUSTRALIA

### Biochar-based amendments:

Here is an abstract from an open access Australian research paper co-authored by Stephen Joseph and published by Wiley BCB Bioenergy entitled:

### **Combination of Biochar-Based Fertilisers and Reactive Barriers Improved Soil Carbon Storage, Soil Moisture Retention, and Crop Yield in Short Term.**

Climate change threatens long-term soil health because of increased severity and frequency of drought periods. Applying biochar to soils before a drought can increase non-biochar soil carbon (C) and water storage over the long term and sustain crop yield.

However, the on-farm benefit of buried solid biochar and applied liquid biochar at low rates remains uncertain. This study examined the effects of two novel biochar-based soil amendments on soil C, water storage and crop yield. The biochar-based amendments included a biochar reactive barrier (RB) made by layering wood-based biochar, straw mulch and cow manure into a series of open surface trenches, and a liquid biochar mineral complex (BMC) applied twice, at low rate (200kg/ha) to one side of RB (fertilised area), while the other side of RB received no treatments (non-fertilised area).

Moisture concentration within the RB ranged from 6.76% up to 56.68% after large rainfall, more than double the surrounding soils and gradually started migrating from the RB outwards. Soil within 50cm distance of the RB showed a 24.5% increase in non-biochar soil C compared with soil at 600 cm distance of the RB, (i.e. 2.54% versus 2.04% respectively), in the non-fertilised area, which was supported with lowering soil microbial activity.

Pasture yield increase was associated with liquid BMC fertiliser rather than proximity to the RB. Pasture yield was 44% higher in the fertilised area compared with the non-fertilised area (i.e. 27.89 t/ha versus 19.31 t/ha).

Approximately 158kgCO<sub>2</sub>e was removed from the atmosphere for each cubic meter of RB and an annual removal of 150kg CO<sub>2</sub>e/ha was estimated for liquid BMC application.

Income earned by increased yield was still profitable even though applied liquid BMC could cost between USD 400–520/ha including shipping costs.

Overall, our study suggested biochar-based RB and BMC fertilisers can effectively increase soil moisture retention while building non-biochar soil C storage in the surrounding soil. The adoption of biochar-based techniques has the potential to improve drought resilience while increasing soil C in a wide range of non-irrigated cropping systems.

**Ed: I have a copy of the complete article if you would like it. I can email it to you.**

### COMMITTEE MEETINGS

Committee meetings are normally held on the 3<sup>rd</sup> Monday of the month (public holidays excepted) from 7:30 pm. in the Macclesfield Institute Supper Room. You are invited to come along if you have a biochar matter you would like to discuss or simply to meet us.

Our next meeting will be on **Monday 17 March 2025.**

### ENQUIRIES:

**Secretary: Brian Lewis. Mob: 041 148 0935**

**Production: Kelvin. Mob: 0423 198 345.**

**Wood Collection: Geoff. Mob: 0418 800 691.**

**Membership: Fiona. Email: [fmwil62@gmail.com](mailto:fmwil62@gmail.com)**

**Brian Lewis – Editor**