

Jeffries Biochar - Australia

Price 140 € / CORC



ITEM

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DEALER

Jeffries Group

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Location: Australia

DESCRIPTION

Jeffries Biochar Operations

In 2021, we commissioned one of the largest biochar plants in Southern Hemisphere. Fuelled by recycled woody green organics, this plant not only creates high quality biochar but generates enough energy from the syngas to power our state-of-the-art ROSS compost and mulch screening plant.

Our biochar plant is designed to run 24x6 and is designed to produce around 1500 dry tons of Biochar and about 230 MWh of power a year, while meeting stringent emissions requirements set by local regulatory authorities.

Jeffries – Background

At Jeffries we have had our hands in South Australian soil for generations, growing strong since 1842. Driven by wholesome family values and innovation, we have developed world-leading organic recycling technologies and collection partnerships. We compost over 150,000tn of organic material every year through our facilities in Northern Adelaide.

A distinctive element of our organisation is the ability to be part of a strong circular economy. Our products are made from composted material that return carbon and nutrients to the soil to grow produce and plants that have waste products which become compost when returned to us. Essentially, your food scraps can help to grow your food. Our processes and technologies are unique to us, not only in Australia, but worldwide.

Combining our passion and process, the team at Jeffries deliver premium compost, soil, mulch, biochar and organic fertilisers for farmers, viticulturists, landscapers and home gardeners. Together, we are securing the future of healthy soil for generations to come.

CARBON REMOVAL INFORMATION

Carbon removal method :	Biochar
Capture of CO2:	Photosynthesis
Stabilization of CO2:	Pyrolysis
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Permanence:	Over 100 years

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Status of production: Audited

Unit of product volume: m3

Embodied carbon in product: 2.07

Year of first issuance: 2022

Minimum amount to negotiate: 50

Examples of usage:

- Our biochar is used as a key ingredient in Jeffries CulChar, our first certified organic pelletised fertiliser product
- Advanced phase of R&D work is currently underway involving our biochar based blended soil amendment products targeting key soil health benefits such as better water and nutrient holding capacities, improved soil organic carbon levels, healthier and more diverse soil biology, etc.
- We are currently trialing co-composting of biochar with our traditional green organics feedstock to both improve the actual composting process and end products from it
- More in-house and external research work are in the pipeline to develop new biochar-based products and market opportunities

Co-benefits:

- Landfill avoidance – all our biochar is made from recycled green organic wastes, which were destined for landfills in the absence of well-established composting operations like ours
- Electricity generation – 100% of syngas produced from our biochar plant is used in specialised oxidisers to produce waste heat to run Organic Rankine Cycle (ORC) turbines and supply more than enough power to run our state-of-the-art ROSS compost screening plant. Any unused power is exported to the grid
- Water use efficiency - most of our customers are growing high-value crops in an arid climate and paying high prices to purchase water. Biochar application to soils helps improve water-use efficiency resulting in less pressure on a valuable resource and economic savings to growers
- High cation exchange capacity of biochar helps improve nutrient use efficiency (NUE), thereby reducing growers' reliance on expensive fertilizers, lot of which are derived from fossil fuels and/or mined from non-renewable sources
- Carbon sequestration catalyst - biochar is well-known as one of the most stable forms of carbon. When applied to soils, it works as a catalyst to attract more carbon into the soil depending on the type of soil management practices, thereby aiding sequestration of lot more carbon than what was originally applied as biochar

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**Economic acceleration
impact:**

Additional revenue from sale of our CORCs will help us

- Accelerate our R&D work to develop new biochar-based products and applications ensuring ongoing demand for them
- Accelerate our marketing efforts to reach new markets and geographies
- Upgrade and expand our production capabilities
- Target new sources of feedstock to meet future demand

AUDIT INFORMATION

Facility ID:

643002406801000176

Independently verified by:

Energy Link Services