





## Biochar for Trees & Shrubs

Biochar is a carbon-rich material produced through pyrolysis, a process that thermally decomposes organic matter. Characterised by its high porosity and surface area, biochar is effective in improving soil health by enhancing water retention, nutrient preservation, and microbial activity. Biochar can be used as soil amendment for a range of plants, including established trees and shrubs, flowering and vegetable plants, seedlings and so on. This factsheet will go into detail about how biochar is an excellent soil amendment for trees and shrubs, providing numerous benefits for their growth and overall health.

Parameter	Unit	Green-waste Derived Biochar
pH	-	8.00±0.04
CEC	cmol/kg	29±0.13
BET Surface Area	m <sup>2</sup> /g	5.00±0.07
Pore volume	cc/g	0.003

### Properties and Benefits for Trees and Shrubs

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**Supports Microbial Life:** Biochar creates a conducive environment for soil microbes, enhancing nutrient cycling and uptake.
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**Improved Soil Water Retention:** Biochar's porous structure retains water, reducing the need for frequent watering and ensuring adequate hydration, especially during dry spells.
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**Improves Soil Structure:** Biochar improves soil aeration and prevents compaction, facilitating deeper and easier root growth and better oxygen supply.
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**Increases Nutrient Retention:** It binds nutrients in the soil, prolonging their availability and preventing leaching, which is particularly beneficial for nutrient-poor soils.

### Glossary

**Soil Structure:** Refers to the arrangement of soil particles and the pore spaces between them. Good soil structure is important for root growth, water movement, and air circulation within the soil.

**Nutrient Retention:**

The ability of soil to retain nutrients and prevent them from leaching away with water. Higher nutrient retention means that plants have more prolonged access to essential nutrients.

**Microbial Life:**

Microorganisms living in the soil, including bacteria, fungi, and protozoa. These organisms are key to nutrient cycling, breaking down organic matter, and improving soil health and fertility.

**Aeration:** The process of introducing air into the soil, which is crucial for healthy root growth. Aeration improves the soil's oxygen supply, necessary for root respiration and overall plant health.

## Our Products

Onnu presents a specialised range of biochar soil amendments, meticulously designed to enhance the growth and health of trees and shrubs. Our products, rich in nutrients and carbon, are tailored for robust and sustainable plant growth. **These include:**

<b>Soil Improver for Trees</b> 95% Biochar, Seaweed Extract, Wormcast and Mycorrhizal Fungi for micronutrients and improved soil structure	<b>Fertiliser Mix for Trees</b> Biochar and NPK (16-12-12) Fertiliser Blend for added nutrients and improved resistance to environmental stressors	<b>Soil Mix for Trees</b> Soil (80%), Biochar (10%) and Compost (10%) Blend. Ideal for root-balled or air pot trees	<b>Compost Mix for Trees</b> Biochar and Compost Blend for added organic nutrients and improved soil conditioning
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## Application Rates

Application rates for our biochar soil amendments vary based on factors like the environment, soil conditions, and plant type. For precise application guidelines tailored to your specific needs, please visit our website at [www.onnubiochar.com](http://www.onnubiochar.com) and refer to the detailed information on each product.

## Frequency of Application

Biochar is stable and persists in the soil for several years. Its benefits accrue over time, so frequent reapplication is not necessary. In general, apply every 2 years for optimum results, followed by a soil assessment for more tailored application rates.

## References:



[Elad et al, 2011](#)



[Palviainen et al, 2020](#)



[Scharenbroch et al, 2013](#)



[Royal Horticultural Society](#)

**Find more at:**

[www.onnubiochar.com](http://www.onnubiochar.com)