

### Help your soil breathe, retain moisture, and thrive – naturally

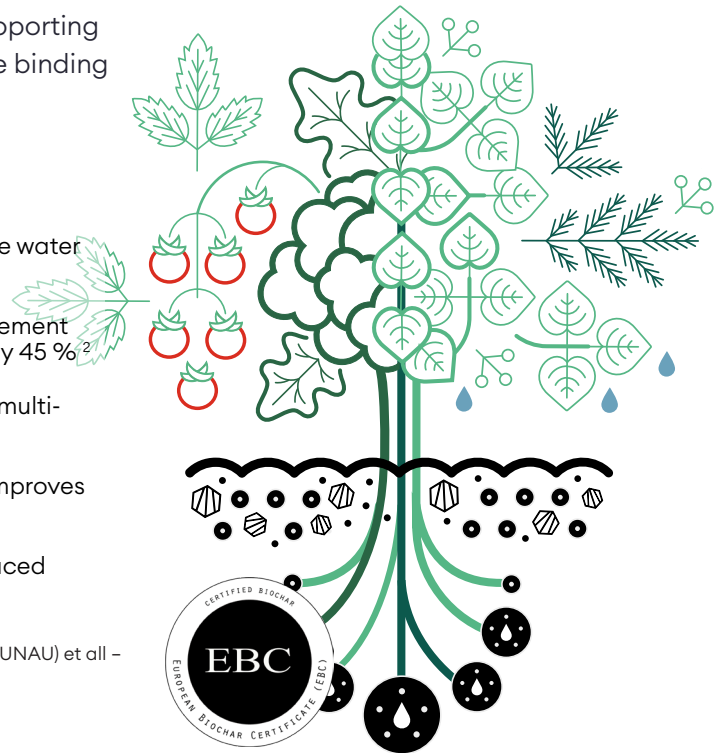
WoodChar Classic is a high-performance biochar made from upcycled wood residues and designed to improve water retention, soil porosity, and microbial life in compacted substrate systems.

It is a sustainable alternative to vermiculite and perlite, supporting healthier root zones and more resilient plant growth – while binding up to 2.3 t of CO<sub>2</sub> per ton biochar.

#### Your benefits:

- ✓ **Higher water storage capacity:** 5 % of biochar can improve water availability in sandy agricultural soils by up to 170 %<sup>1</sup>
- ✓ **More resilient plants and better growth:** significant improvement of height by 30 %, fresh weight of shoot by 35 % and root by 45 %<sup>2</sup>
- ✓ **Increase in microbial activity and biodiversity:** Ecosystem multifunctionality is significantly increased by 18.7 %–30.1 %<sup>3</sup>
- ✓ **Less usage of fertilizer:** combining biochar with compost improves soil fertility and reduces chemical fertilizers<sup>4</sup>
- ✓ **Reduction of nitrate leaching:** 10-20 % biochar in soils reduced NO<sub>3</sub> concentration and lower nitrogen leaching to 50 %<sup>5</sup>

<sup>1</sup> Khan N. (JICA) et al – 2022; <sup>2</sup> Murtaza G. (IUB) et al – 2024; <sup>3</sup> Ndede O.E. (HUNAU) et al – 2023; <sup>4</sup> Wang Hu (WUR) et al – 2023; <sup>5</sup> Dorais M. (LAVAL) et al – 2014



#### WoodChar Classic's specifications compared to other soil additives

Soil Additive	WoodChar Classic	Vermiculite	Perlite	Pumice
Particle Size	< 40 mm	0 - 8 mm	0 - 6mm	0 - 20 mm
WHC*	High	High	Medium	Medium
EC** (mS/cm)	1.1	< 0.2	0.007 < 0.001 (GGS)	0.096
CEC***	Increases continuously to very high	Very high	Low	Low
Bulk Density (g/cm <sup>3</sup> , db)	0.34	0.07 - 0.1	0.032 - 0.4	0.3 - 0.6
CO <sub>2</sub> Storage Potential	Yes	No	No	No

\*WHC = Water Holding Capacity; \*\*EC = Electricity Conductivity \*\*\*CEC = Cation Exchange Capacity

#### Success Case: Stockholm City Trees

The Street Department of Stockholm has rebuilt 2,000 planting beds for trees throughout the city. This project used a rock-based growing substrate with our biochar for the base, which is beneficial for both the resilience of the trees and stormwater management.

Any questions?  
We are happy to help!

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# Novocarbo

Biochar for healthy soils

## Ready-to-use substrate enhancement for aerated soils and higher nutrient efficiency

Our NutriChar Pellets support plant vitality, water retention, and long-term soil health.

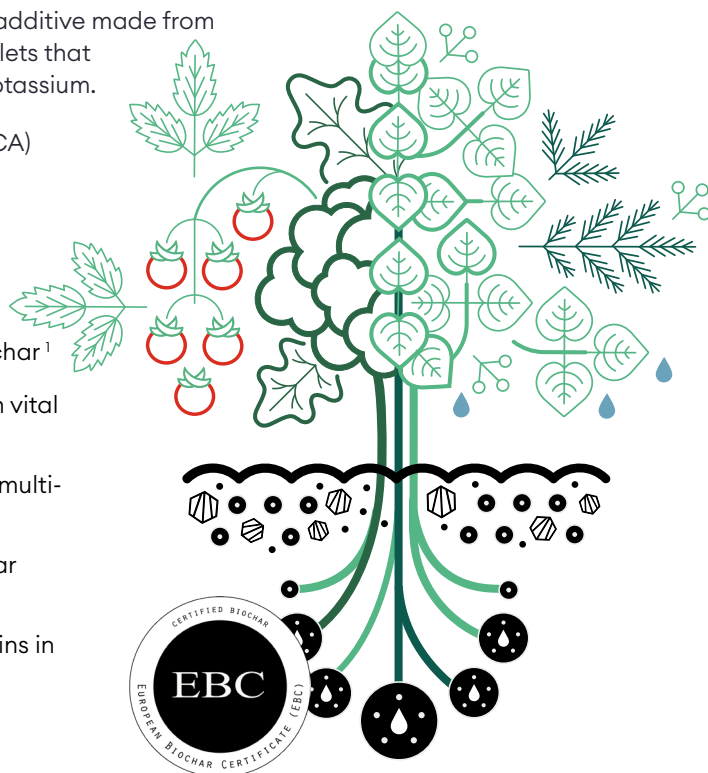
The nutrient-enriched biochar pellets are a high-performing soil additive made from biogas digestive through pyrolysis. Our innovation: NutriChar Pellets that are dust-reduced, easy to apply, and contain phosphorus and potassium.

Replace conventional additives such as light expanded clay (LECA) with a climate-positive, future-ready solution.

### Your benefits:

- ✓ **Higher water storage:** in sandy soil the water content was increased from approx. 14 % to 19 % when adding 4 % biochar <sup>1</sup>
- ✓ **Less usage of fertilizer:** our biochar is already charged with vital nutrients like potassium and phosphorus
- ✓ **Increase in microbial activity and biodiversity:** Ecosystem multifunctionality is significantly increased
- ✓ **Reduction of nitrate leaching:** thanks to its porosity, biochar pellets in soils lower nitrogen leaching <sup>1</sup>
- ✓ **Ensured durability:** 92 % of the carbon in the biochar remains in the soil for 100 years and longer <sup>2</sup>

<sup>1</sup> University of Copenhagen; <sup>2</sup> Schmidt et al., 2022



### NutriChar Pellets' specifications compared to other soil additives

Soil Additive	NutriChar Pellets	LECA	Pumice	Perlite
Particle Size	6 - 8 mm (diameter) 5 - 15 mm (length)	2 - 30 mm	0 - 20 mm	0 - 6mm
WHC*	Medium	Medium	Medium	Medium
EC** (mS/cm)	28	< 0.1	0.096	0.007, < 0.001 (GGS)
CEC***	Increases continuously to very high	Low	Low	Low
Bulk Density (g/cm <sup>3</sup> , db)	0.587	0.3 - 0.5	0.3 - 0.6	0.032 - 0.4
Nutrient Content	High in carbon, 1 % N, 1 % P, 3,5% K, minerals	Not significant	Not significant	Not significant
CO <sub>2</sub> Storage Potential	Yes	No	No	No

\*WHC = Water Holding Capacity; \*\*EC = Electricity Conductivity; \*\*\*CEC = Cation Exchange Capacity

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