BIOCHAR

Suitable for all types of crops: horticultural, herbaceous, arboreal, shrub-like crops. For organic, integrated, conventional, industrial agriculture and hobby farming.

The production of 1 ton of biochar sequestrates more than 3 tons of CO2 fixing it as carbon for hundreds of years

Obtained from an innovative pyrogasification technology, Biodea Biochar is the product got from the partial combustion of biomass inside the reactor and it is mechanically collected from its bottom to be divided into different particle sizes at a later time. Time and temperature control during the reaction phase ensures optimal values that have a low ash content and a high organic carbon content. Gases extraction in a low pressure area from the reactor head, which never come into contact with Biochar, ensures the absence of contaminants released during combustion. The carbon contained in Biochar has a very high stability and it remains in the soil for hundreds of years, sequestering 3 tons of carbon dioxide for each ton produced. Nowadays, it is one of the most effective means available for combating climate change. ***Biodea Biochar is classified as a class I product, that according to Legislative Decree 75/2010, has a better quality thanks to its low ash and high carbon content***. ***Biochar is a soil improver able to improve the chemical, physical and microbiological structure of the soil*** by creating a stable and porous structure, thanks to which it is possible to reduce the frequency and amount of water needed for irrigation; moreover, its high specific surface, that is similar to clay, promotes the absorption and ion exchange of the nutrients.

Biochar as **soil improver**:

- promotes aeration, drainage and resistance to compaction;
- provides an optimal environment for the proliferation of microorganism communities, revitalizing and increasing the transformation of organic residues into humus;
- reduces the action of pollutants thanks to its high adsorbent and filtering capacity.

Biochar as ***plant improver:***

- increases the ion exchange capacity between the soil and the roots, increasing the availability and assimilation of the nutrients;
- increases available water content (AWC) by over 35%, reducing water requirements and water stress.

pH	7.5 - 9
Total carbon	67 - 75%
Total nitrogen (N)	0.2 0.4%
Total phosphorus (P)	0.03 - 0.04%
Total sodium (Na)	280 310 mg/kg
Total potassium (K)	2950 3200 mg/kg
Total calcium (Ca)	9900 10650 mg/kg
Total magnesium (Mg)	800 980 mg/kg
Phytotoxicity and growth test	qualified
Ash content	3 5%
Conductivity	1.10 mS/cm
Molar H/C ratio	0.2

BioDea offers 5 standard Biochar grain sizes and is able to package customized sieves for every need:
Black Silt (Powder): perfect for water purification due to its remarkable capacity to absorb pollutants.
Green Sand (<2 mm): particularly suitable for the regeneration of sports fields and turf.
White Onyx (3 – 7 mm): suitable as a growing medium in urban gardens, horticulture and nursery gardening
Gold Gravel (8 – 30 mm): suitable as a technical and drainage substrate and full field crops
Rainbow Mix (Tal Quale): without screening, it contains variable percentages of all grain sizes

Dosage and conditions of use:

HORTICULTURAL: 3 m3 / 1.000 mq In the preparation of soil, with basic fertilization, at the beginning of vegetative cycle of the vegetable. • 0.5 m3 / 1.000 mq at the end of the vegetative cycle of the vegetable, on the residues of the cultivation, first of surface plowing for resting between two successive cycles.
FRUIT FARMING: 10 m3 / ha in soil preparation, with pre-planting fertilization. • 1 m3 / ha In september-october when harvesting has just finished.
VINE: 13 m3 / ha in the preparation of soil with pre-planting fertilization • 1.5 m3 / ha n september-october when harvesting has just finished.
OLIVE TREE: 9 m3 / ha In the preparation of soil, with basic fertilization, at the beginning of vegetative cycle • 1.5 m3 / ha when vegetative recovery starts
ARABLE LAND: 3 m3 / ha In the preparation of soil, with basic fertilization, at the beginning of vegetative cycle 0.5 m3 / ha at the end of the vegetative cycle of the vegetable, on the residues of the cultivation, first of surface plowing for resting between two successive cycles.
NURSERY GARDENING: 2% 10% in volume in the formulation of seeding, transplantation and cultivation.

www.biodea.bio