M.D. BIOCHAR

Biochar is a heterogeneous substance rich in aromatic carbon and minerals. It is produced by carbonization and or pyrolysis of sustainably obtained biomass under controlled conditions with clean technology and is used for any purpose that does not involve its rapid mineralisation to CO2 and may eventually become a soil amendment.

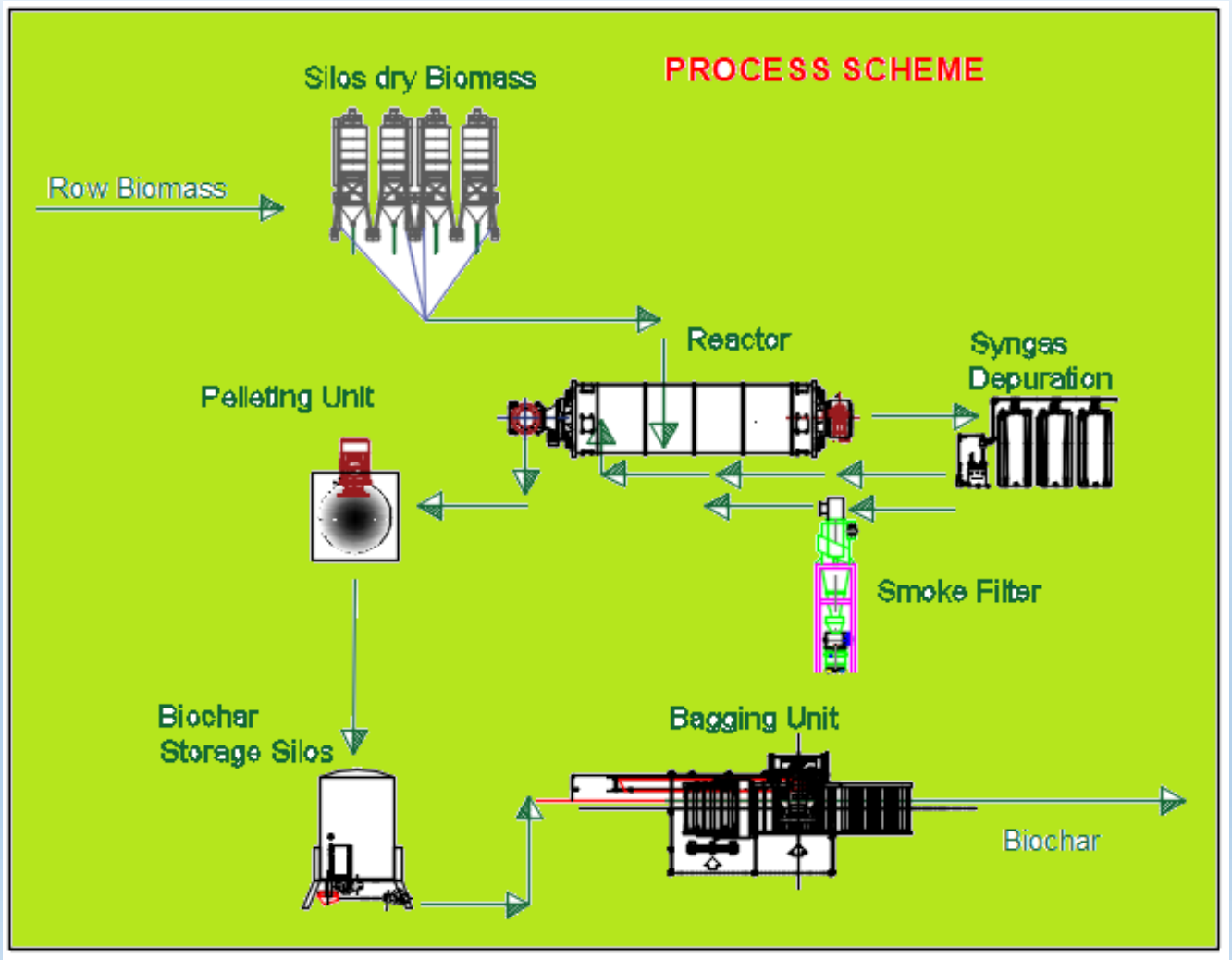
BIOCHAR AND CLIMATE CHANGE

Typically, biomass contains approximately 45 – 60% of carbon and about 35 to 40% of oxygen. The remaining elements are hydrogen, nitrogen and smaller amounts of minerals. When biomass is deteriorating or burned, a significant quantity of carbon dioxide is released into the atmosphere and contributes to the negative climate impacts, that could be avoided when producing biochar instead.

M.D. BIOCHAR

PROCESS

The high temperature anaerobic carbonization furnace (450 - 650 ° C) is a rotary drum with continuous loading for dry biomass containing a high carbon value.
The advanced technology of this procedure makes it possible to recover all the end-of-process energies such as Syngas which is purified and used to maintain the carbonization temperature.
Emissions are extremely low, far below any environmental legislation.
The whole system is controlled and managed by a computerized program.
The system can be supplied in the totally manual, semi-manual or fully automated version.



M.D. BIOCHAR

ITS AGRICULTURAL VIRTUES

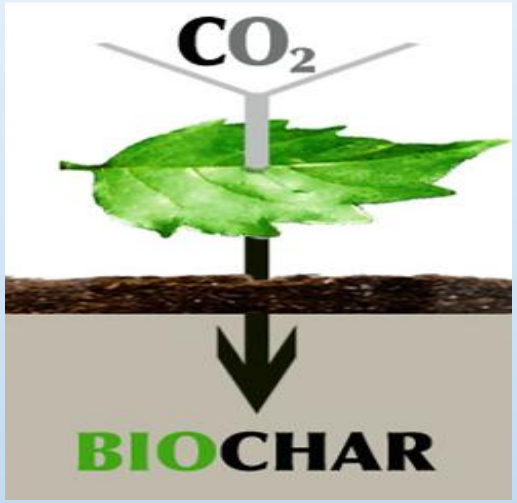
Ploughing in the soil 300 gr to 1 kg of biochar per m2 increases crop productivity to levels that range from 50 to 200%. Just one application provides and maintains long-lasting soil fertility benefits that enhance carbon sequestration in the soil, thus fighting climate change.

Today, biochar research shows measurable, replicable improvements in soil productivity:

1. Enhances soil biology (40% increase in mycorrhizal fungi)
2. Improves nutrient retention in soils (50% increase in Cation Exchange Capacity)
3. Improves the water retention capacity of soils (up to 18% increase)
4. Increases the pH of acidic soils (1 point pH increase)
5. Increases soil organic matter

Biochar could also be useful for breeding, by its capacity to make animals healthier and to increase the productivity, for decontaminating soils or even for filtering wastewaters.

M.D. BIOCHAR



Biochar is a powerful mean to mitigate climate change

As plants grow, they draw down atmospheric carbon dioxide (CO2) to produce biomass that contains carbon. Rather than allowing plant matter to decompose and emit CO2, pyrolysis transforms around half of the carbon stored in plant tissue into a stable and inactive form of carbon.

Biochar is also achieving the following:

1. Delays oxidation of soil organic matter
2. Reduces emissions of nitrous oxide (N2O) and methane (CH4)
3. Increases soil organic matter sequestering carbon
4. Increases plant growth
5. Economises water
6. Provides an option to produce renewable electricity by cogeneration

A recent study has estimated that 12% of current annual anthropogenic impact.

Contact Us

GREEN TECHNOLOGY SRL
Annibale Temponi
Tel: +39 039 6200875 – Mobile: +39 348 7493821
Sede Legale: Via X Giornate, 8 - 25080 Mazzano (BS)
Sede Operativa: Via Bergamo, 80 - 20882 Bellusco (MB)

info@greentechnologysrl.it

www.greentechnologysrl.it