

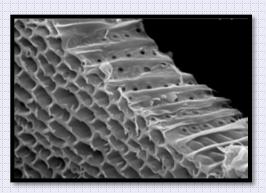


### What is Vital Char?

Vital Char (our brand name for biochar) is defined by the International Biochar Initiative as "The solid material obtained from the thermochemical conversion of biomass in an oxygen-limited environment".

#### Vital Char is:

- · "charcoal"
- composed of at least 60% carbon
- solid
- relatively inert
- persistent in soil for centuries
- · highly porous
- lightweight
- large in surface area.



### What is biochar made from?

Wood that otherwise would have been put into a landfill.



Trees affected by disease like the Ash and Pine trees.





Storm damage brush and branches from residential homes.

## How is biochar made?

Biochar is made by burning organic material from agricultural and forestry wastes (also called biomass) in a controlled process called pyrolysis. During pyrolysis organic materials, such as wood chips, leaf litter or dead plants, are burned in a container with very little oxygen. The temperature can be 600 - 2000 F.

Production equipment varies greatly.







# How does biochar help crops?

Carbon in soil should be at a certain percentage. Target is 5%.

Poorer or heavily exploited soil levels are likely to be less than 1% carbon.

Carbon is the "home" for microbial life that is so important to supplying what plants need.

Biochar holds water in the soil to supplement during a drought.

Biochar is a sponge for elements like nitrogen-rich ammonia and nitrate, potassium, phosphorus and calcium. It stores these elements and supplies them to the plants when needed. Biochar greatly reduces runoff and loss due to volatility.



# Carbon level in your soil—Long term carbon sequestration

We all hear about the severe increase of carbon in our atmosphere.

The production of biochar keeps the carbon "locked up" and thus when added to the soil, it reduces the carbon that can be added to the atmosphere.

# Good biological organisms.

For plants to live, they rely on biological organisms to provide them with the nutrients and water they need to grow. Biochar is the "home" that these biological organisms need to live in. Soils that are low in carbon will also have low levels of needed biological organisms, and thus will struggle to give the plants what they need to thrive



# **Companion Products**

### Minerals

Liquid Life Trace Minerals Liquid Life Humic

### Microbials

Liquid Life Microbial Soil Amendment Boost Organic Manure Management Solution

### Mixed with compost

Manure+Biochar+Boost





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