

## Pyrolysis of rice straw to create biochar for Soil-amendment

### Pyrolysis Plants *designed for mobile use*

BHFTECH pyrolysis plants are intended for Pyrolysis of rice straw to create biochar for soil amendment appears to be a promising method to address concerns with regard to improving soil fertility, increasing Carbon storage and decreasing Green House Gas emissions.

Model No.	Plant Size
<b>BHFV1TPD</b>	<b>1 Ton</b>
<b>BHFV2TPD</b>	<b>2 Ton</b>
<b>BHFV4TPD</b>	<b>4 Ton</b>

The rice straw-derived biochars especially produced at 400 C had high alkalinity and cation exchange capacity, and high levels of available phosphorus and extractable cations. These properties indicate potential application of rice straw-derived biochar as a fertilizer and soil amendment

Formation of rice straw-derived (RSD) biochar appears to be a promising method to address the problem of reductions in soil nutrients and C storage, and increased Green House Gases (GHGs) emissions associated with rice straw application from rice paddies. Generally speaking, biochar is more stable relative to other soil organic matter forms

#### Benefits Of Biochar Application

Potentially include increased adsorption ability, reduced loss of nutrients via leaching and increased soil organic carbon; thus improving soil fertility . Overall, rice straw biochar produced at 400 C show the greatest potential for use as soil amendment to improve the fertility of highly weathered and infertile soil



Operational Cycle of Pyrolysis Plant	Time in Hours
1. Heating	1 to 2 Hours
2. Pyrolysis	4 Hours
3. Cooling	0.5 Hours
<b>Total</b>	<b>6 Hours</b>

Operational Cycle of Reactor	Time in Hrs
1. Loading of raw material and closing of lid	0.5
2. Placing retort in the module	0.25
3. Taking retort out the module	0.25
4. Cooling	0.5 to 1
5. Unloading of the retort	0.25