



Biomass conversion to activated carbon

Domain: Agri-technology & Agri-inputs

A small scale, low cost equipment that can upgrade waste agricultural and forest residues into a carbon rich feedstock, suitable for the production of activated carbon. Thus, addressing the problem of open burning of farm waste, reducing air pollution by eliminating 95% of particulate matter, CO and volatile matter emissions and increasing farmer income up to 30% through sale of their farm waste for activated carbon production.

Value Proposition:

- Low cost, small scale portable system
- Used as a standalone unit or can be attached to tractors and trailers
- Does not require external fuel to run
- One system for diverse biomass usage

Applications: Can be used to convert biomass to activated carbon. Tested using coconut shell, walnut shell, rice husk.

- Renewable energy production
- Chemicals synthesis
- Fertilizer

Technology Status: Functional prototype deployed.

IP Status: Patent pending.

Market Potential:

The global activated carbon market is projected to grow from USD 5.7 billion in 2021 to USD 8.9 billion by 2025 (CAGR of 9.3%).



Pre-commercial prototype.



Equipment latched onto a tractor.

Requirements: Seeking industry partner for pilot study, deployment & licensing