

Biochar

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Biochar Latest News

Studies have indicated that Biochar can improve crop productivity by 10% to 30% and water-holding capacity by 10% to 25%, particularly in soils low in nutrients.

About Biochar

- Biochar is made by **heating agricultural waste** in **low-oxygen conditions**.
- It offers a sustainable **alternative to manage waste and capture carbon**.
- It is granular material obtained by heating crop residue at 400°C to 600°C in a kiln-shaped structure in the absence of oxygen.
- **Advantage of Biochar:** It can **hold carbon in the soil for 100-1,000 years** due to its strong and stable characteristics, making it an effective long-term carbon sink.

Potential Applications of Biochar

- **Agriculture:** It can improve water retention, particularly in semi-dry and nutrient-depleted soils.

- Biochar is **highly porous** and contributes to aggregating soil particles, **holding water and creating a suitable environment for microorganisms.**
- **Industries:** In carbon capture applications, modified biochar can adsorb CO₂ from industrial exhaust gases. However, its carbon removal efficiency is currently lower than that of conventional methods.
- **Construction sector:** Biochar can be explored as a low-carbon alternative to building materials and makes building materials a stable carbon sink.
- **Wastewater Treatment:** Biochar offers a low-cost and effective option to reduce pollution.

Source: TH

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