



International Biochar Initiative



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IBI is a non-profit organization supporting researchers, commercial entities, policy makers, farmers & gardeners, development agents and others committed to sustainable biochar production and use. [Find Out More](#) ▶

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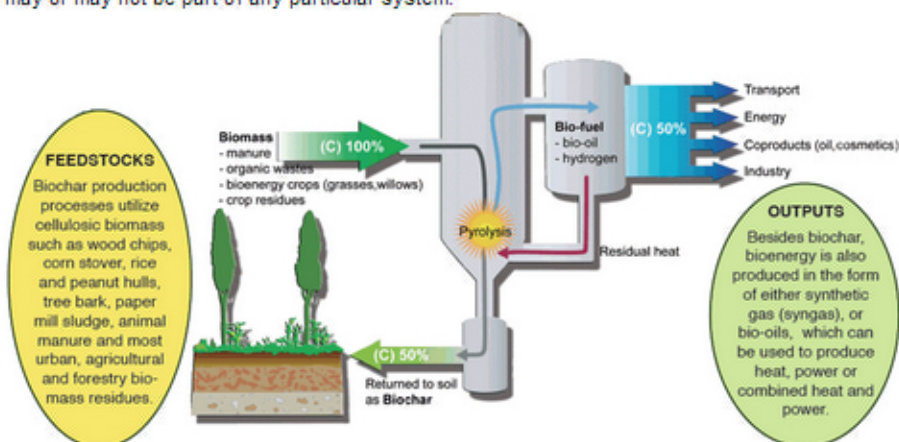
Resources

BIOCHAR TECHNOLOGY

- [Biochar Feedstocks](#)
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There are many different ways to make biochar, but all of them involve heating biomass with little or no oxygen to drive off volatile gasses, leaving carbon behind. This simple process is called thermal decomposition usually from pyrolysis or gasification. These methods can produce clean energy in the form of gas or oil along with the biochar. This energy may be recoverable for another use, or it may simply be burned and released as heat. It's one of the few technologies that is relatively inexpensive, widely applicable and quickly scalable.

But biochar technology is more than just the equipment needed to produce biochar. Biochar technology necessarily includes entire integrated systems that can contain various components that may or may not be part of any particular system.



In general, however, biochar systems should include the following elements:

- Collection, transport and processing of [biomass feedstocks](#)
- [Characterization and testing](#) of biochar
- [Production](#) and utilization of energy co-products: gas, oil or heat
- Biochar transport and handling for [soil application](#)
- Monitoring of biochar applications for [carbon accounting](#)
- Life Cycle Assessment and full system monitoring for [sustainability](#) assessment

Biochar production diagram courtesy of Johannes Lehmann

[A new list of Biochar Companies \(compiled by Erich Knight, September 2012\)](#)



One of the most exciting new strategies for restoring carbon to depleted soils, and sequestering significant amounts of CO₂ for 1,000 years and more, is the use of biochar." "The principle barrier to the use of this strategy is the lack of a price on carbon that would drive the economy toward the most effective ways to sequester it. There is presently no formalized network of biochar distribution channels or commercial scale production facilities. But a stable price on carbon would cause them to quickly emerge – because biochar holds such promise as an inexpensive and highly effective way to sequester carbon in soil."

Al Gore, 45th Vice President of the United States <http://www.biochar-international.org/biochar/soils> and 2007 Nobel Peace Prize Co-recipient
Photo: Paramount Vantage