

# Purity of Biochar Created in an Innovative Kiln

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## Overview

Biochar is a charcoal-like substance created from woody plant waste through a process called pyrolysis. This process involves superheating the plant waste at temperatures upwards of 700 degrees in the absence of oxygen. This burns away all extra constituents while leaving the carbon structure intact. The purity of the product (%w carbon remaining) varies with factors such as temperature, feedstock type, oxygen content, and more.

## Purpose

The purpose of this study is to understand the purity of the biochar produced by the kiln in use. This will allow us to provide a valid quantification of the amount of carbon we are sequestering. It will allow us to assure clients that our product is clean and beneficial to their micro-ecosystem.

## Goals

1. **Define the purity of the biochar produced:** To correctly evaluate the amount of carbon we are sequestering, we need to know how much carbon by weight is in our product.
2. **Assess what other constituents are present:** To ensure we are providing a beneficial product we must identify any possible constituents remaining in the product.
3. **Correlate constituents with feedstock:** If constituents are found, we need to know where they come from and why they may be present.