

# Featured Tool for Stormwater Management: Biochar as a Soil Amendment

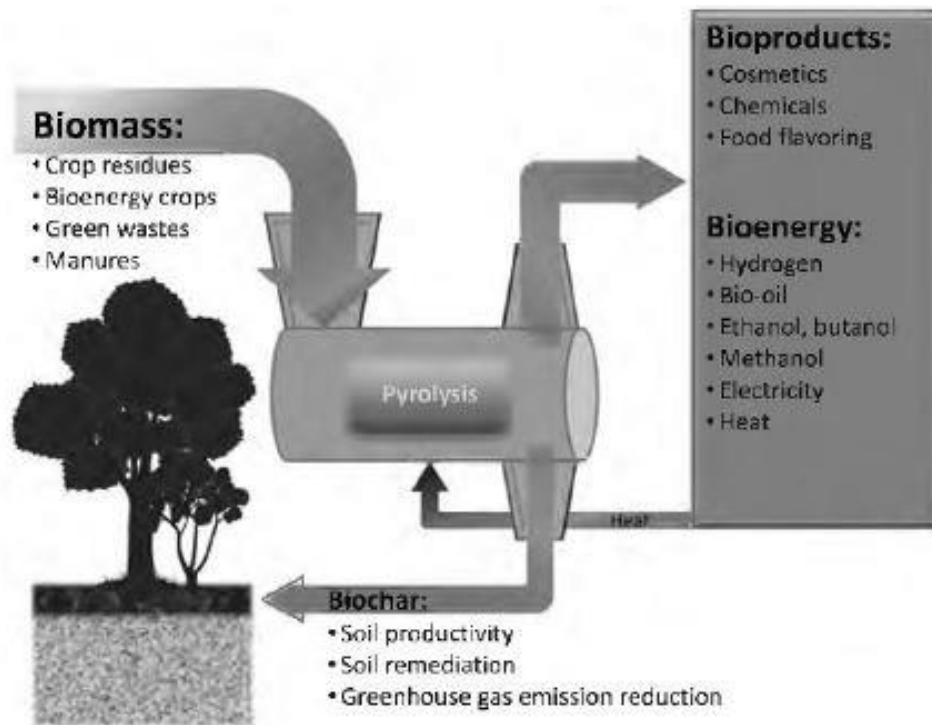
Regional Environmental Committee

November 7, 2019

Jill Sunderland



# Biochar Basics



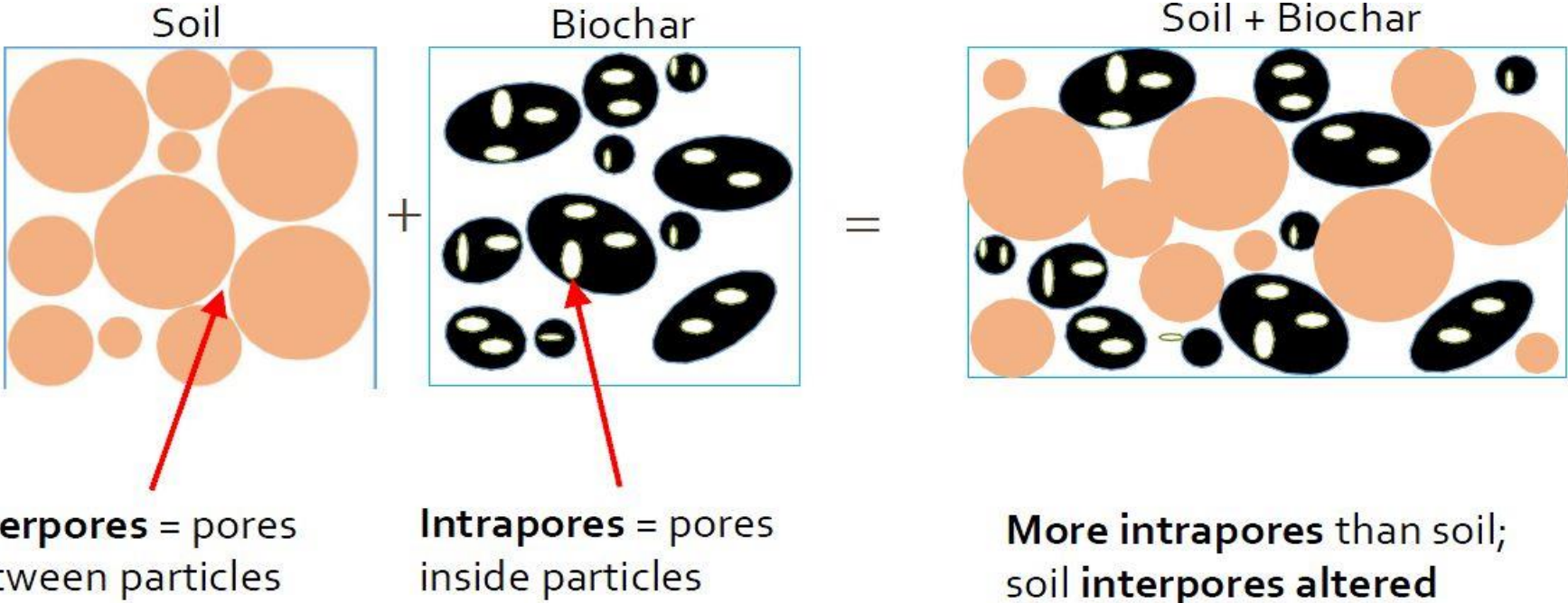
**Pyrolysis** – limited oxygen, and high temperature (250-800C)

# Biochar Basics

Sourced from poultry litter



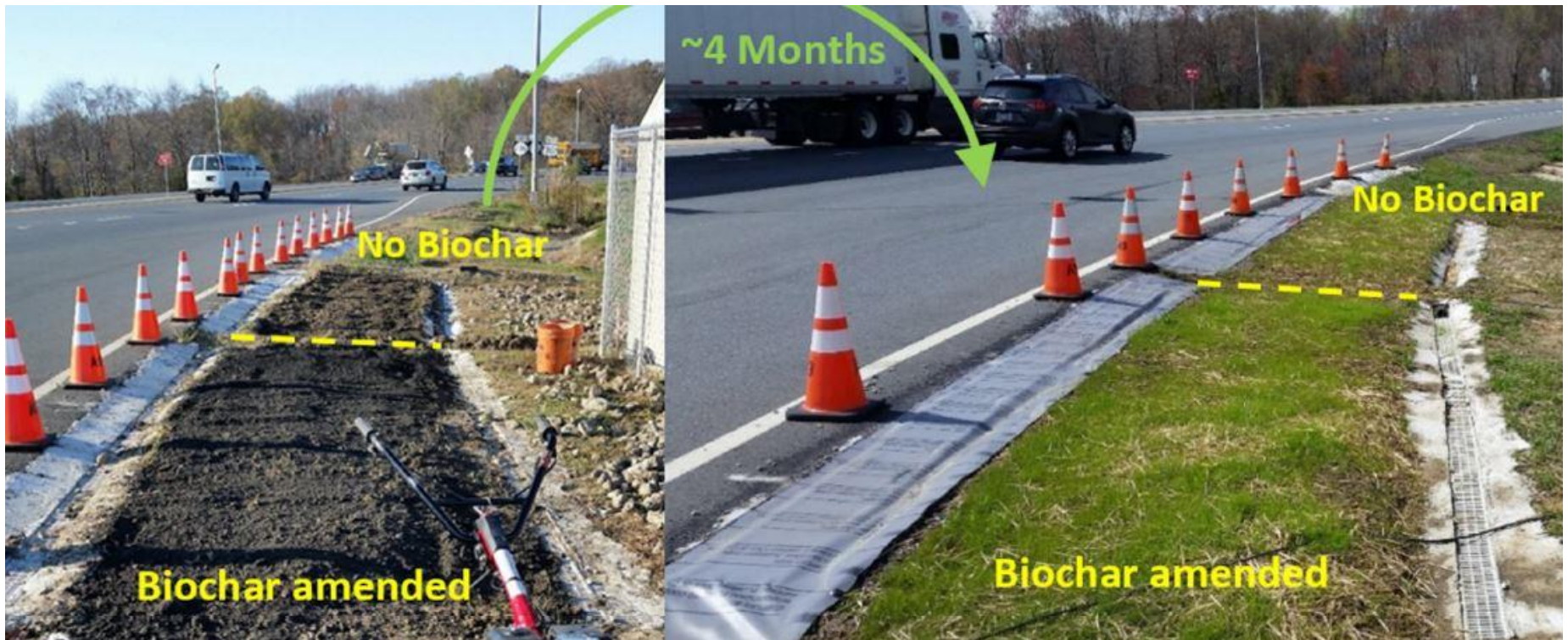
Sourced from wood



Source - CSN Webcast "The Latest on Biochar" with David Wood, Dr. Paul Imhoff from UD, and Lori Lilly from Howard County Ecoworks



# Dr. Paul Imhoff, University of Delaware



# Lori Lilly, Howard County Ecoworks





# Benefits of Biochar



Soil improvement



Increased carbon sequestration



Water quality improvement



Ground water retention



Forest/biomass utilization



Less likely to have the same nutrient leaching potential as other, more raw forms of carbon, such as compost .

# Concerns with Biochar

Potential for leaching nutrients, metals, or PAHs

Increases alkalinity of soil

Challenges with standardization of product

Challenges with procurement and handling

# Not Approved for Credit - Yet

- Draft specs released as an add-on to *Performance Enhancement Devices for Stormwater BMPs*
- Remaining questions:
  - Does adding biochar produce a measurable and reliable removal rate of N and/or P for the practice? Use existing runoff reduction curves?
  - Is the technique feasible over the range of soil, groundwater, and terrain conditions across the Bay watershed?



# Resources



Biochar-us.org

Biochar

December 2018

Prepared By:

Hirschman Water & Environment, LLC  
Center for Watershed Protection, Inc.

For:

*Roadside Ditch Management & PEDs*  
Center for Watershed Protection, Inc.  
Chesapeake Stormwater Network

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## Webcast Resources

### **The Latest in Biochar: Webcast Recording**

Recording of the October 17, 2019 webcast "The Latest in Biochar". Audio begins at 01:11.

[Open link in new window](#)