



Agronomic and Environmental Uses of Biochar

August 21, 2015

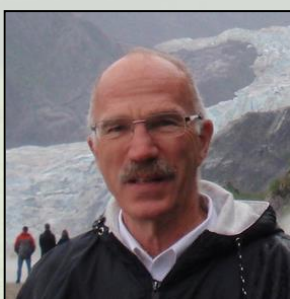
2:30 pm (eastern), 1:30 pm (central), 12:30 pm (mountain), 11:30 am (pacific)

Biochar is a charcoal-like material generated during the pyrolysis of biomass. The high carbon (C) content of biochar and its recalcitrant nature has led to much interest in using biochar to sequester C from the atmosphere by incorporating it into soils. Additional benefits to incorporating biochar into soils include reduction of emissions of greenhouse gases; improving soil physical and chemical properties; increased water retention; increased crop yields; and increased soil retention of nutrients, heavy metals, pesticides, and microbial pathogens. In this second installment of our 2-part webcast on biochar, we will discuss how biochar affects important soil properties and crop yields, how biochar can be used to increase soil retention of agrochemicals and manure pathogens, and niche markets for biochar. *An application for continuing education credit for Certified Crop Advisors (CCAs) and members of the American Registry of Professional Animal Scientists (ARPAS) has been submitted.*



Jeff Novak is a research soil scientist with the Coastal Plain Soil, Water and Plant Research Center of the United States Department of Agriculture – Agricultural Research Service (USDA-ARS) in Florence, SC. Dr. Novak received his PhD in Soil Morphology and Genesis from The Ohio State University. Over the past few years, his biochar research emphasis entails producing biochars with designed characteristics to re-balance soil nutrient concentrations as well as making and evaluating biochars to improve soil moisture retention in sandy soils. He is currently working with USEPA scientists to design biochars that can improve the health characteristics of mine spoil soils for improved plant growth and heavy metal sequestration. Phone: (843) 669-5203; Email: Jeff.novak@ars.usda.gov

Carl Bolster is a research hydrologist with the Food Animal Environmental Systems Research Unit of the United States Department of Agriculture – Agricultural Research Service (USDA-ARS) in Bowling Green, KY. He also holds adjunct professor appointments at both the University of Kentucky and Western Kentucky University. Dr. Bolster received his PhD in Environmental Science from the University of Virginia. Dr. Bolster's research on biochar has focused primarily on the use of biochar for increasing retention of pathogenic and indicator bacteria in sandy soils. Phone: (270) 781-2632. Email: carl.bolster@ars.usda.gov



Dusty Moller is a forest industry utilization and marketing specialist and most recently worked for the Nevada Small Business Development Center's Business Environmental Program. Moller earned his MBA from the University of Arizona. He has more than 43 years of experience assisting community-based entrepreneurs build their forestry businesses. He has worked as an industrial engineer for Weyerhaeuser, Plum Creek and Bohemia lumber companies. He also served for more than 10 years as the Technical Products Director for Lucidyne Technologies. He developed an operating plan, co-designed, and managed the construction and startup of the largest sawmill and laminated timber operation plant of its type in the world. Phone: (509) 443-4355; Ext. 1. Email: MollerD@energy.wsu.edu

How Do I Participate?

On the day of the webcast, go to www.extension.org/58813 to download the speaker's power point presentations and connect to the virtual meeting room. First time viewers should also follow the steps at: www.extension.org/8924.

For More Information

- * How biochar works in soil - <http://www.biochar-journal.org/en/ct/32-How-biochar-works-in-soil>
- * Biochar: The science behind the hype - http://www.youtube.com/watch?v=XQxthabe_OU
- * The 55 uses of biochar - <http://www.biochar-journal.org/en/ct/2-The-55-uses-of-biochar>
- * The International Biochar Initiative - <http://www.biochar-international.org/>