Lunch ~ N ~ Learn SEMINAR

NATIONAL C-FAR

THE NATIONAL COALITION FOR FOOD & AGRICULTURAL RESEARCH

Program:

WASTE TO WISDOM

Using Agriculture and Forestry Residues to Create Bioenergy and Biochar

April 20, 2015
PROGRAM

Welcome and Introduction

SUSAN STEIN
MODERATOR

Distinguished Speaker

DEBBIE PAGE-DUMROESE, PH.D.
ECONOMIC RESEARCH SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Open Forum

Closing

SUSAN STEIN

NATIONAL C-FAR IS a nonprofit, nonpartisan, consensus-based and customer-led coalition that brings food, agriculture, nutrition, conservation and natural resource stakeholders together with the food and agriculture research and extension community, serving as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension, and education. For additional information, go to www.ncfar.org; or contact Tom Van Arsdall, Executive Director, at tom@vanarsdoll.com.
ABSTRACT
Woody biomass from western conifer forests or crop residues from farming operations are viewed as a potential source of feedstock for biofuel using thermochemical or biochemical conversion processes. Biochar, a byproduct from biofuel production, has been heralded as a soil amendment to revitalize degraded soils, improve carbon sequestration, increase agronomic production, and reduce greenhouse gas emissions. However, some barriers still exist in the technical and economical delivery of biofuel and biochar. Adding biochar to soil may produce immediate effects on soil nutrition, water retention, or microbial activities, but vary depending on soil type. Long-term impacts of biochar additions include soil formation, revitalizing nutrient impoverished soil, and building soil organic matter. Negative impacts from the use of crop residues for biofuel or biochar include altering raindrop impacts, organic matter incorporation, infiltration, and runoff. On National Forest lands there are numerous advantages to removing a portion of the net forest growth, including protection from wildfires, pests, and diseases, as well as acclimating to climate change. With the global population expanding and demand for goods and services from both crop and forest lands increasing, restoring soil quality to nonproductive or marginally productive soils could be the key to meeting future food and forest production needs. Biochar may be able to play many roles for improving soil conditions, but the economics, technology, and science must be fully understood so the benefits of biochar can be applied appropriately.

SPEAKER BIOGRAPHY

Deborah S. Page-Dumroese, Ph.D., is a U.S. Forest Service Research Soil Scientist with the Rocky Mountain Research Station in Moscow, ID. Since 1990 she has been part of the North American Long-Term Soil Productivity study and has worked on how land management alters belowground processes. Her interest in the links between land management, biochar application in forests, and decomposition of woody material led to her being invited to install research studies in Sweden, Switzerland, Spain, China, Finland, Canada, and numerous locations around the U.S. She is Adjunct Affiliate Faculty at Michigan Technological University (Houghton, MI), University of Idaho (Moscow, ID), and University of Montana (Missoula, MT). She has a B.S. from Grand Valley State University, M.S. from Michigan Technological U., and a Ph.D. from the University of Idaho.
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