



XV WORLD FORESTRY CONGRESS

Building a Green, Healthy and Resilient Future with Forests

2-6 May 2022 | Coex, Seoul, Republic of Korea

Forest to Food: Sustainable Agriculture Operations through the Expansion of Forest Bioeconomy

12:00 - 13:30pm Korea Standard Time, Friday, 6 May 2022

Forest restoration and fuel reduction thinning treatments are commonly implemented to reduce wildfire risk and improve forest health. These treatments continue to produce large amounts of small-diameter wood and biomass residues that can be converted to forest bioproducts such as sawdust and biochar. Sawdust as animal bedding materials can be used to conserve water quality, improve animal welfare, and collect animal wastes to produce organic soil fertilizers. Biochar is a charcoal product that can be used in agricultural applications to improve soil quality and sustainable production of foods. It is also help reduce methane, nitrous oxide, and ammonia emissions from animal wastes, which are significant contributors to total greenhouse gas emissions. Greater integration of forestry and agriculture operations provides an opportunity to develop a new cohesive bioeconomy that will support active forest managements and enhance sustainable agricultural operations.



Presenters



Dr. Sang-Kyun Han, Biochar production and agricultural applications in South Korea (12:00-12:20)



Dr. Nathaniel Anderson, The economics of producing biochar from forest biomass to meet demand in agriculture (12:20-12:40)



Dr. Minjae Cho, Production and supply chain logistics to deliver sawdust for the use of animal bedding materials in livestock operations. (12:40-13:00)



Dr. Deborah Page-Dumroese, Benefits of biochar for managing animal waste and improving soil properties in sustainable agriculture (13:00-13:20)

Organizers

Dr. Han-Sup Han, Northern Arizona University, USA

Dr. Deborah Page- Dumroese and Dr. Nathaniel Anderson, USDA Forest Service, USA

Dr. Jae-Heun Oh, Dr. Ho-Seong Mun, Dr. Eunjae Lee, and Dr. Minjae Cho, National Institute of Forest Science, Republic of Korea

Dr. Sang-Kyun Han, and Dr. Heesung Woo, Kangwon National University, Republic of Korea

