

BIOCHAR QUALITY MANAGEMENT

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Biochar is a structurally heterogeneous material, which can be obtained from a wide range of feedstocks including forestry, agricultural, livestock manure, and municipal residues. The availability of multiple feedstocks with different quality grades and the wide variation in process conditions employed in biochar production create a quality control challenge. Therefore it is apt to say that **“Not All Biochars are Created Equal”** through proper feedstock selection, pyrolysis process optimization, and selective post-treatment, the desired characteristics/properties can be tailored to suite a particular application of interest. The presentation will describe quality characteristics of wide variety of biochar derived from forestry, agriculture and livestock industry feedstocks and highlight the importance of developing quality assurance programs over the widely employed quality control programs. Biochar product safety guidelines for various applications including greenhouse vegetable production, cattle feed supplement and integrated multi-trophic systems such as aquaponics will be dealt with. Specific Canadian Food Inspection Agency (CFIA) regulatory guidance for the import or sale of biochar product in Canada will also be discussed. Latest updates on the Alberta Biochar Initiative (ABI) and biochar centric collaborative research activities being conducted between InnoTech Alberta, Susteen Technologies and Fraunhofer UMSICHT will also be shared at this conference.