New Opportunities for Biochar from Biomass Energy

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Abstract

The US Biochar Initiative promotes the production and use of biochars from urban wood and residues from bioenergy, forestry, and bioenergy industries. Biochar markets continue to grow in North America creating new opportunities to convert wood residues to sustainable carbon while restoring soil health and improving water quality. More than 155 US companies supply an estimated 50,000 tons of biochar per year which is used in agriculture, landscaping, and environmental remediation. Most of the biochar is a co-product of biomass energy made through gasification and combustion. New uses such as wallboard, cement, packaging, and electronics have increased the potential to sequester carbon by converting wood residues to biochar and renewable energy. This presentation will show how bioenergy producers can make biochars at existing facilities to improve soil health; restore degraded urban soils and abandoned mine lands; reduce water pollution from pharmaceuticals and fertilizers; remove nutrients, metals and bacteria from stormwater; and access new carbon markets.

Biography:

Tom Miles is the president of T.R. Miles, Technical Consultants, Portland, Oregon, a biomass energy consulting firm, which designs, develops, installs, and commissions systems for processing wood, agricultural, and urban residues. His knowledge of ash transformations led to recycling nutrients using pyrolysis of residues to biochar. He has sponsored and hosted online discussions of biomass energy since 1994 and biochar since 2006. He is Executive Director of the United States Biochar Initiative and past chairman of the International Biochar Initiative.

Publications:

- Bioenergy Including Biomass and Biofuels, 2020 "Energy and Power Generation Handbook.
- Introduction to Biochar Products, Systems, and Processes.
- 3. Aqueous Contaminant Removal and Stormwater Treatment Using Biochar

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