

Biochar and Torrefied Biomass Short Course

Penn State Bioenergy Short Course Series

When: 24-25 October, 2018

Where: Penn State Main Campus, State College PA

Hosted By Penn State Extension and the Penn State Biomass Energy Center, with support from the Northeast Sun Grant and US Forest Service Wood Innovation Grant program.

Overview:

Biochar and torrefied biomass represent two dramatic opportunities for energy and product development in the emerging bio-economy. However, the principles, processes, performance, and markets for these renewable resources often are not well understood. Join us for this two-day short course as we cover the fundamentals, applications, and opportunities related to transformation of biomass into value-added thermally processed materials. The event includes presentations, tours, networking, and discussion of the scientific, technical, and project principles of biochar and torrefied biomass production and use.

Attendees can expect to learn about:

- Overall pathways of biomass to biochar
- Physical, chemical, and energetic properties of biochar and torrefied biomass
- Material and energy balances relative to commercial equipment
- Supply chain properties for different biomass feedstocks

Who Should Attend?

This short course is designed for individuals seeking to gain a better understanding of the opportunities for biochar and torrefied biomass as a renewable, sustainable material for energy, materials, and other products. Biomass and bioproducts professionals, project developers, policy makers, researchers, and public sector professionals are all encouraged to attend.

Speakers:

Speakers and panelists for this short course include industry and research experts in wood products and energy systems, including:

- Tom Causer, Advanced Torrefaction Systems, Port Allegany PA
Curtis Dell, USDA Agricultural Research Service, University Park, PA
Jillilan Goldfarb, Cornell University, Ithaca NY
Amanda Hope, USDA Rural Development
Ed Johnstonbaugh, Penn State Extension, Greensburg, PA
Leonel Nunes, Advanced Fuel Solutions, Portugal

Program:

24 October, 2018;

- 13:30 Principles of Pyrolysis
- 14:30 Properties of Biochar and Torrefied Biomass
- 15:30 Emerging Research in Torrefied Biomass Performance
- 16:15 Tour of research facilities
- 18:00 Group Dinner

25 October, 2018;

- 08:00 Registration
- 08:20 Welcome and Introductions
- 08:30 Feedstocks for Biochar and Torrefied Biomass
- 09:15 Equipment and Systems for Biochar and Torrefaction
- 10:15 Break
- 10:30 Supply Chain Opportunities
- 11:30 Project Development Assistance and Support
- 12:00 Lunch
- 13:00 Biochar Soil Amendment Opportunities
- 14:00 Torrefied Pellets for Thermal Energy
- 15:00 Emerging market opportunities for Biochar
- 16:00 Adjourn

Registration:

Early bird registration for the event is \$135 per person (up to August 30th), after that the price rises to \$180. Registration includes admission, packet of materials, dinner, lunch, and breaks.

Register online at:

http://bioenergy.psu.edu/shortcourses/2018_Biochar_Torrefie d.asp

Questions?

Please contact:

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Penn State Biomass Energy Center: <http://www.bioenergy.psu.edu>, Penn State Extension: <http://energy.extension.psu.edu>, Penn State Institutes of Energy and the Environment: <http://www.psiee.psu.edu>