Biochar: Know it, Make it, Use it

LONG TOM WATERSHED COUNCIL

November 6, 2018 | 9:30 a.m—2 p.m.
Indoor Workshop | FREE

1820 Roosevelt Blvd. Eugene, OR (City of Eugene Parks and Open Space offices)

November 7-8, 2018 | Outdoor Demonstrations

Oak Habitat Restoration Project Locations in the Long Tom Watershed

November 6: Come learn from biochar consultant Kelpie Wilson about how biochar works in soils; how to make biochar and use it in agriculture, forestry, restoration and remediation applications; and biochar kiln design and combustion principles. Learn from USDA-Agricultural Research Service staff about the results of agriculture and soil remediation trials using biochar. And, contribute ideas and questions to ongoing dialog about incorporating biochar creation into local habitat restoration projects.

November 7-8: Join Long Tom Watershed Council staff and local partners to help with or just watch the work to create biochar from slash cut during thinning to restore oak habitat this summer and last. Come for one or both days.

Questions?, Interested in helping?, RSVP: Katie MacKendrick - 541.214.0389 / restoration@longtom.org

Hosted by the Long Tom Watershed Council: www.longtom.org

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Agenda:

9:30—10am - Registration

10:00—10:45 - Biochar Basics

- Basic biochar science. How biochar affects soil chemistry and biology, starting with the nano-scale (electrons) and moving up to micro-scale (bacteria) and macro-scale (the plant roots).
- Examples of biochar used in different applications – compost, manure management, farms, trees, gardens, no-till, cover crops, rangeland, forestry, habitat restoration
- Biochar and the carbon cycle. How biochar can return carbon to carbon-depleted soils.

10:45—11:00 Break

11:00—Noon – Biochar Research at USDA-ARS

- Results from research in agriculture and soil remediation
- Developments in the Forest to Farm pathway for biochar
- How to use the Biochar Decision Support Tool

Noon—12:45 Lunch

12:45—1:30 – Biochar Production Technology

- Traditional charcoal making and how it differs from modern pyrolysis
- Low-tech, low cost biochar in the field using Flame Cap Kilns
- Industrial biochar technologies suitable for the Willamette Valley
- How to estimate costs and returns of biochar production

1:30—2:00 – Biochar and Oak and Prairie Habitat Restoration

- Motivations for incorporating biochar into habitat restoration
- Questions, considerations, and more
- Overview of field demonstrations Nov. 7 and 8

Presenters:

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Biochar Production in the Field using Oregon Kilns and Conservation Piles

Kelpie Wilson will facilitate a hand crew working to turn oak restoration slash into biochar using Oregon kilns (steel 4' x 5' x 2' kilns) and piles constructed for biochar creation.

In-field training will cover the following elements and more:

- Equipment needs for safety and production efficiency
- Matching equipment and labor to the size of the job
- How to site kilns for safe operation
- How to assess feedstocks for moisture and suitability
- How to stage feedstock for easy loading into kilns
- Lighting and quenching techniques
- Feedstock loading techniques for efficient and smoke-free operation
- Coping with wind and rain in the field
- Keeping a biochar production log

Volunteers and volunteered equipment (water trucks, hoses, tools, etc.) welcome!

Contact Katie to RSVP and receive location information. And, for information about dress, safety equipment requirements, and support equipment. 541-214-0389 / restoration@longtom.org

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For more information: Katie MacKendrick, LTWC Ecologist - 541/214-0389 / restoration@longtom.org