

Intensive Biochar Workshop

at Menoken Farm — **AGENDA**



Monday, April 15

- 12:30 – 1:00 **Registration and Introductions**
- 1:00 – 1:30 **Biochar and the North Dakota Forest Service** — Derek Lowstuter, North Dakota Forest Service
- 1:30 – 2:30 **Biochar 101** — Kelpie Wilson, Wilson Biochar Associates
- Biochar history
 - Biochar physics and chemistry
 - Biochar and soil microbial ecology
 - Biochar and the carbon cycle
- 2:30 – 3:00 **Break**
- 3:00 – 4:00 **Biochar Applications** — Kelpie Wilson
- Biochar for soil remediation and regeneration
 - Biochar for water management
 - Biochar and trees
 - Biochar for organic waste stream management
 - Biochar and livestock
 - Biochar and no-till agriculture
- 4:00 – 4:30 **Barriers to Biochar Adoption** — Ghasideh Pourhashem, Asst. Prof. NDSU Department of Coatings and Polymeric Materials (CPM) and Center for Sustainable Materials Science (CSMS)
- 4:30 – 5:00 **Discussion and Wrap-up**

Tuesday, April 16

- 8:00 – 8:30 **Registration and Introductions**
- 8:30 – 10:00 **How to Make Biochar** — Kelpie Wilson
- Pyrolysis – overview
 - Centralized biochar production – options
 - Mobile biochar production – options
 - Biochar from windbreak trees
 - Biochar job planning and estimating
- 10:00 – 10:30 **Break**
- 10:30 – 3:30 **Biochar Production Session** (with lunch break in the field)
- 3:30 – 4:00 **Break**
- 4:00 – 5:00 **Biochar characterization in the lab**
- pH testing of a variety of biochars and biochar composts
 - Evaluating biochar water holding capacity

Wednesday, April 17

- 8:00 – 8:30 **Registration and Introductions**
- 8:30 – 10:00 **Biochar on the Great Plains** — Roundtable Discussion with NRCS staff and Great Plains producers who are making and using biochar. Participants TBD. Topics include:
- Biochar application methods
 - Biochar and no-till
 - Biochar and cover crops
 - Biochar and composting
 - Biochar and livestock
 - Biochar and greenhouse production
 - Biochar production systems
- 10:00 – 10:30 **Break**
- 10:30 – noon **Biochar Brainstorm** — a moving discussion visiting parts of the Menoken Farm operation to illustrate and discuss ways that biochar could be used on farms on the Great Plains
- 12:00 – 12:15 **Wrap-up and goodbyes**

Thursday, April 18

Optional Large Scale Biochar Production Session
We may convene on Thursday morning to try a new biochar production method on large windbreak burn piles at a neighboring farm. Details - TBD

* Schedule subject to change

Made available through partnership between:

USDA – Natural Resources Conservation Service
USDA – Forest Service
NDSU – North Dakota Forest Service
Burleigh County Soil Conservation District – Menoken Farm
Wilson Biochar Associates



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