

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



NDSU

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to Vice Provost for Title IX/ADA Coordinator, Old Main 201, NDSU Main Campus, 701-231-7708, ndsu.eoaa@ndsu.edu. This publication will be made available in alternative formats for people with disabilities upon request, 701-231-7881.