## Soil Health Workshop: Regenerative Agriculture

## Carbon, Microbial Processes and Soil Health Indicators

## Thursday, September 12, 2019

## Dickinson Research Extension Center (DREC) – Ranch HQ

11092 15<sup>th</sup> St. SW, Manning, ND From ND Hwy 22, turn onto 15<sup>th</sup> St. SW and travel west 2.8 miles

Please RSVP for Meal Count

By September 6 to

Toby Stroh

701-590-1151

toby.stroh@dickinsonstate.edu

Workshop is FREE!

8:35-8:45

8:45-9:30

Welcome

Dr. Chris Schaue

**Dr. Chris Schauer**, Interim Director, DREC

Importance of mycorrhizal fungi in crop and grazing systems

Dr. Heike Bucking, Soil Microbiologist, South Dakota State University

9:30-10:00 Fate of carbon in the ecosystem

**Break** 

Dr. Joshua Steffan, Associate Professor of Soil Microbiology, DSU



Pea-Barley

10:00-10:15

Soil health principles and tabletop slake/Water holding capacity demo

Hal Weiser, North Dakota State Soil Health Specialist, NRCS

10:45-11:15

10:15-10:45

Soil Web Soil Survey

Jeanne Heilig, Soil Survey Team, USDA/NRCS

UC Davis Soil Web App

Hal Weiser, North Dakota State Soil Health Specialist, NRCS



Steers and Pea-Barley Residue

11:15-11:30

Introduction into soil health field indicators

Susan Sampson-Liebig, Soil Quality Specialist, NRCS

11:30-12:15

Working Lunch – DREC Soil DNA project report

Dr. Songul Senturklu, Turkish Visiting Scholar, NDSU

12:15-12:30

12:30-3:30

Travel to Section 19



Mycorrhizal Fungi

Rotating field soil health indicator and soil pit stations

Station #1: Residue, cover, biological decomposition

Doug Landblom, Beef Cattle Specialist, DREC

Station #2: Soil Pit #1 – Soil horization, color, texture

John Kempenich, Soil Survey Team, USDA/NRCS

Station #3: Soil aggregates and structure

Jeanne Heilig, Soil Survey Team, USDA/NRCS

Susan Sampson-Liebig, Soil Quality Specialist, NRCS

Station #4: Soil Pit #2 – Roots, pores, and structure

Hal Weiser, North Dakota State Soil Health Specialist, NRCS

Station #5: Biological diversity, bio-pores, compaction, and crusting

Dr. Joshua Steffan, Associate Professor of Soil Microbiology, DSU

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