

# Workshop: Soil, Crop & Livestock

## Healthy Soils & Microbial Processes = Healthy Environment

### Wednesday, September 12, 2018

Dickinson Research Extension Center – Manning Ranch

11092 15<sup>th</sup> St. SW, Manning, ND

Section 19, located 5.5 miles west of ND Highway 22 on 15<sup>th</sup> St. SW

Please RSVP for Meal Count  
By September 5 to  
Toby Stroh  
701-590-1151  
[toby.stroh@dickinsonstate.edu](mailto:toby.stroh@dickinsonstate.edu)  
Workshop is FREE!



Triticale hairy-vetch



Cattle grazing corn



13-specie cover crop

- |             |  |
|-------------|--|
| 9:00-9:10   | <b>Welcome</b> – Dr. Kris Ringwall, Director, DREC   |
| 9:10-9:40   | <b>Dr. Josh Steffan</b> , Dickinson State University<br><i>Introduction to soil microbial processes</i>  |
| 9:40-10:15  | <b>Hal Weiser</b> , NRCS Soil Health Specialist<br><i>Using cover crops – which species to plant and why</i>   |
| 10:15-11:15 | <b>Heike Bucking</b> , SDSU Soil Microbiologist<br><i>Fungal hyphae, glomalin, soil aggregate stability, and mycorrhizal hyphae root symbiosis</i>   |
| 11:15-12:00 | <b>Sharon Weyers</b> , USDA-ARS Soil Scientist, Morris, MN<br><i>Soil sample analysis reports: traditional soil reports (NDSU, others), biological soil analysis reports (Ward Labs, Cornell University, etc.)</i> |
| 12:00-12:45 | <b>Working Lunch</b> – Doug Landblom, DREC Beef Cattle Specialist<br><i>Overview of DREC Integrated Systems Research and Ward Labs – DREC Biological Soil Analysis Report</i>                                      |
| 12:45-1:00  | <b>Caravan to Section 19</b>   |
| 1:00-1:10   | Instruction for applying soil health indicators in the field   |
| 1:10-2:10   | Rotating soil health indicator field stations (rotate every 12 minutes)<br>Field Station Leaders: <b>Hal Weiser, Dr. Josh Steffan, Sharon Weyers, Heike Bucking, and Larry Cihacek</b>                             |
| 2:10-2:45   | Student groups application of soil health indicators   |
| 2:45-3:10   | Student assessment group findings  |
| 3:10-3:30   | Rainfall simulator/system planning alternatives/final thoughts   |

### Sponsors

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