

## **2021 SARE Faculty Workshop**

### **Morning Agenda**

- 8:00 a.m.      Rainfall Simulator  
Demonstration with the Rainfall Simulator provided by NRCS Office (still to be confirmed)
- 9:00 a.m.      Soil Sampling  
How to properly take a soil sample, and apps that can be used for grid and zone sampling. This includes a packet of materials for teaching with the Web Soil Survey including a PowerPoint, YouTube videos, and a quiz.
- 9:30 a.m.      Bulk Density  
What is bulk density, why is it important, and how do we measure it. Includes a packet of materials for teaching including a PowerPoint, YouTube videos, and a quiz.
- 10:00 a.m.     Field Activities
- Taking Soil Samples
  - Measuring Soil Compaction
  - Taking a Bulk Density Sample
- 11:00 a.m.     Soil Respiration, Calculating Bulk Density, and Estimating Organic Matter hands on activity
- 11:30 a.m.     Working Lunch - Covered by the SARE Grant
- 11:35 a.m.     Web Soil Survey  
How to use the web soil survey to better understand the land we work. Includes a packet of materials for teaching with the Web Soil Survey including a PowerPoint, YouTube videos, and a quiz.

### **Afternoon Agenda**

- 12:30 p.m.     Let's learn about confinement barn siting!  
Becky Sexton, Twin Lakes Environmental Services
- 1:20 p.m.      Break
- 1:30 p.m.      Manure Spill Response and Investigations, what you have always wanted to know about the process.  
Amber Sauser and Brian Jergenson Iowa Department of Natural Resources.
- 3:00 p.m.      Foam, Fire and Viscosity, understanding the opportunities and challenges of deep pit management.  
Dan Lane
- 4:00 p.m.      Wrap up

## **Additional Activities Required to Obtain CEU's**

### **Pre-workshop:**

- Take the following quizzes:
  - Soil Sampling Quiz, (<https://forms.gle/23JzoWtQyd5G2yaP6>)
  - Bulk Density Quiz Part I, (<https://forms.gle/ZBfhjZztXikFRKgN6>)
  - Bulk Density Quiz Part II, (<https://forms.gle/Xv73m9DRPSpWfFbA6>)
  - Soil Respiration Quiz, (<https://forms.gle/Sq61KVRH7Qbh3jkm6>)
  - Web Soil Survey Quiz, (<https://forms.gle/jwfCsd3TgG5PgMzt9>)
- Complete the Pre-Survey: <https://forms.gle/cvCnPHp4Ld1yfwkK6>

### **Post Workshop:**

- Complete the Post Survey: <https://forms.gle/kxrCaCCiY5nfxHXf7>
- Write 25 quiz questions related to one or more of the activities covered during the workshop or find a website or publication related to the workshop activities and create a quiz or worksheet for that reference.
- Develop 10 open ended discussion questions related to the workshop topics for classroom interaction.
- Interview a producer or ag business individual about soil health and/or manure management. Record a video or audio of the interview. Some suggested questions:
  - Soil Health has become a hot topic in agriculture in recent years. When someone mentions Soil Health, what comes to your mind?
  - Why do you feel there has been increased interest in soil health in recent years?
  - Do you think this will continue to be an interest in future years or is it just a fad?
  - What are some things you feel can be done to improve soil health?
  - What are your feelings about the regulations related to manure management?
  - What are your feelings about the regulations regarding confinement operations?
  - What can be done to reassure the public that manure is being properly handled in your area?

### **Soil bucket materials provided to participants in workshop**

- 3" outside diameter steel sections 5" long for measuring bulk density
- "Cap strength" neoprene 2-lb dumbbell, or rubber mallet with wood handle and 2" x 4" wood block for driving bulk density ring into soil
- Color Chart for Estimating Organic Matter
- Solvita Field CO<sub>2</sub> Test Kit (respiration kit)
- One Piece Step Probe