

# Soil Workshop: Applicable Soil Science Education, Demonstrations and Web Resource Practice

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Soil quality and fertility is critical to agricultural productivity, profitability and sustainability. This workshop was designed for farmers, to provide information about assessing and improving soil quality and fertility. This program provided an introduction to soils for beginning farmers, as well as provided more experienced farmers with a deeper look into soil science and an opportunity to learn about recent developments in soil conservation and online soil tools.



## Program Objectives and Goals

- Increase farmers' knowledge of soil quality and fertility
- Emphasize the importance of soil quality through interactive demonstrations
- Provide farmers with training and computer assistance in using web soil resources
- Increase adoption of soil conservation and fertility best management practices

## Program Description and Delivery

### • Session topics included:

#### How soil fertility and plant growth are related to soil properties

*This session discussed soil properties such as parent material, texture, compaction, pH, etc. and how they influence soil fertility.*

#### Using online soil resources

*This was an interactive session, and participants were provided with a Google Chromebook to practice using Web Soil Survey, UC Davis Soil Web, Maryland iMap, and AgGIS to better understand their soil and make informed crop management decisions.*

#### Taking soil samples and understanding and interpreting soil test reports

*This session discussed how to take soil samples using a spade or a soil probe, best practices for assessing in-field variability and taking representative soil samples. There was also a discussion about understanding and interpreting soil test reports.*

#### Improving soil quality using conservation practices

*This session included a discussion of soil conservation practices such as cover crops and no-till as well as hands-on demonstrations of soil infiltration, run-off, and performing soil stability tests on various soil samples.*

- To accommodate diverse participants, the program was offered three times in Somerset County, MD: 1) Daytime workshop, 2) Evening workshop series, and 3) Workshop for high school agriculture class/FFA field-trip



As a result of the training, how much knowledge did you gain about:

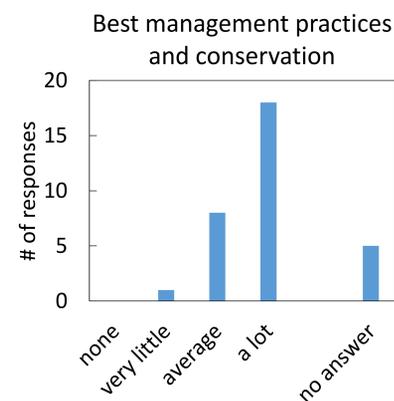
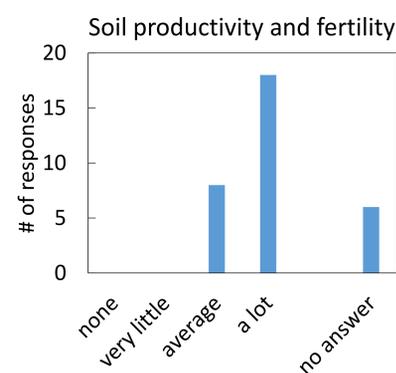
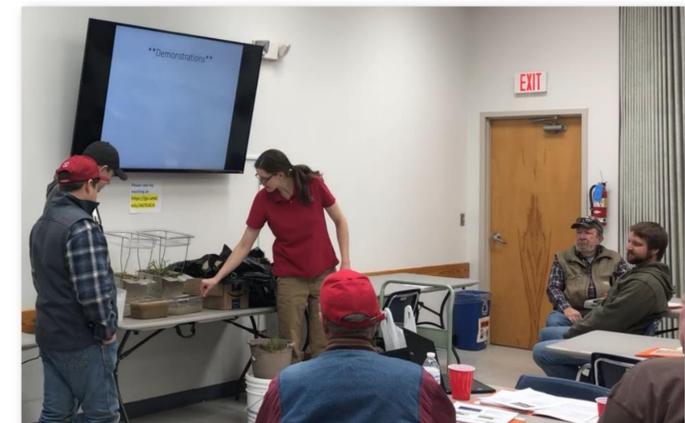


Figure 1. Survey results indicating how much knowledge gained in various areas



## Program Results

- There were a total of 40 attendees between the daytime and evening workshops. There were 20 attendees at the high school field-trip workshop.
- Of the farmer attendees, approximately half had been farming five or less years and half had been farming over 15 years.
- Participants gained knowledge about soil productivity and fertility as well as best management practices and conservation as a result of the workshop (Figure 1).
- As a result of the workshop, the majority of participants cited that they would use best management practices for conservation and have their soil tested (Figure 2).
- 25/26 respondents rated the class as good or excellent overall.
- Participant comments indicated that they particularly benefitted from the interactive components of the workshop such as the soils demonstrations and online soil resources training.

As a result of the training, how likely are you to take these actions:

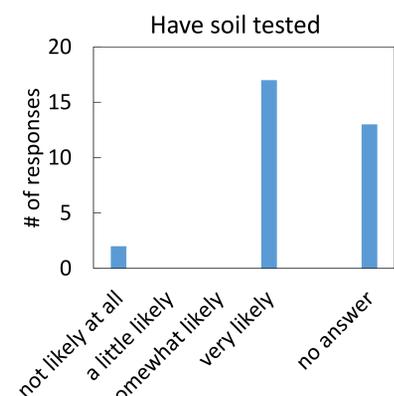
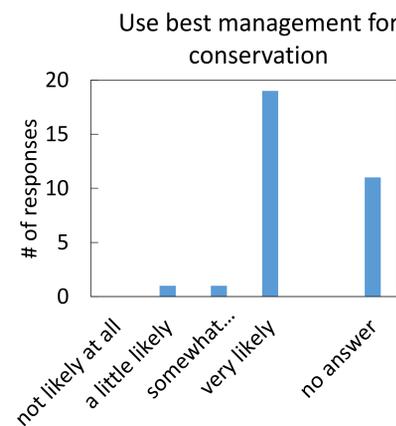


Figure 2. Survey results indicating how likely program participants were to take various actions

