### OJT Training Module Cover Sheet

**Title:** 114 Texture—How to estimate soil texture of soils with different kinds of clay.

**Type:** ☒ Skill  ☐ Knowledge

**Performance Objective:** Trainee will be able to …
- Describe and record soil texture according to NCSS guidelines using clay estimates that are unbiased by kind of clay present in the soil.

**Target Proficiency:**
- ☒ Awareness  ☐ Understanding  ☐ Perform w/ Supervision  ☒ Apply Independently  ☐ Proficiency, can teach others

**Trainer Preparation:**
- Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.
- Have soil samples and field locations with pit, trench, road cut, or auger borings available.
- Have calibration samples of similar percent clay from appropriate kinds of clay for the survey area or in general.
- Have the *Field Book for Describing and Sampling Soils* available.
- Have hardcopy of the 232 soil description form or Pedon PC available.

**Special Requirements:**
- Initiate an external learning request with a SF-182 in Aglearn for this activity. Instructions and a template are located on the training webpages for OJT modules.
- If you do not have clay kind calibration samples, you could ask the NSSL to provide these to you

**Prerequisite Modules:**
- 101 How to use the *Field Book for Describing and Sampling Soils*.
- 102 How to fill out a 232 soil description form.
- 112 How to describe sand, silt, and clay in the soil.

**Notes:**
None

**Authors:**
Marc Crouch

**Approved by:**
Shawn McVey
The Five-Step OJT Cycle for **Procedural** Training (Skill)

**Cycle Step 1**
Trainer/Trainee establish shared mental model

**Cycle Step 2**
Trainer demonstrates task as Trainee observes

**Cycle Step 3**
Trainer coaches as Trainee performs task

**Cycle Step 4**
Trainer observes Trainee performs task and gives feedback

**Cycle Step 5**
Trainer/Trainee debrief
## OJT Module Lesson

**Title:** 114 Texture-How to estimate soil texture of soils with different kinds of clay.

### WHAT

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<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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| Cycle step 1 | Trainee should access via the internet and read Soil Survey Manual, Chapter 3 sections on Soil Separates and Soil Texture under Particle Size Distribution.  
Trainee should have previously accessed and read National Soil Survey Handbook 618:  
|  | • Particle-size-Sand Percentage  
|  | • Texture Class, Texture Modifier, and Terms Used in Lieu of Texture  
|  | Trainee should have previously accessed via the internet and read Soil Survey Field and Laboratory Methods Manual, Soil Survey Investigations Report No. 51, version 1.0; section 3.2.1, pages 41-46, Feel Method. Focus for this module is on the paragraphs under Interferences beginning on page 42.  
|  | Access hardcopy or via the internet and review material about texture in the Field Book for Describing and Sampling Soils, focusing on the texture classes. |

### Cycle steps 2 & 3

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<tr>
<th>Cycle steps 2 &amp; 3</th>
<th>Do the following:</th>
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<td>1. Review what can be recorded according to the Field Book and SSM.</td>
<td>Note that you record texture class.</td>
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| 2. Demonstrate how to “feel” and differentiate different kinds of clay. | Do this in the field or in the office. Have the trainee do this step along with you as you demonstrate.  
|  | 1. Use calibration samples, with different kinds of clay, of same or similar clay content to get a “feel” for different kinds of clay.  
|  | 2. Using samples with lab particle-size analysis available, feel the clay and estimate the percent clay in the sample. Compare estimate to the lab data. |
| 3. Demonstrate how to describe and record soil texture with samples having different clay kinds as they occur in the field. | 3. Record the appropriate texture on the 232 soil description form or Pedon PC. |
Repeat cycle step 3 without coaching. During project activities, assign the trainee the task of describing soil texture as soil descriptions are completed.

Answer any questions. Repeat any steps as necessary.

**OJT Module Lesson Measurement of Learning**

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<td>Describe soil texture routinely during project activities.</td>
<td>During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.</td>
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**SF-182**

Trainee and/or supervisor access Aglearn to verify completion of the module via its SF-182.