**OJT Training Module Cover Sheet**

**Title**: 1201 How to determine soil texture in the USDA Soil Classification System.

<table>
<thead>
<tr>
<th>Type:</th>
<th>X Skill</th>
<th>□ Knowledge</th>
</tr>
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</table>

**Performance Objective**: Trainee will be able to...
- Define textural class definitions.
- Estimate the soil texture class of the most common soils in the area by using a field method provided.

**Target Proficiency**:
- [ ] Awareness
- [ ] Understanding
- [X] 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.
- Secure soil samples of known textures if possible. Dry, crushed samples are preferred.
- Have the textural triangle available.
- Provide a water bottle, hand towels, & a broad, dull knife or other tool for mixing the soil with water.
- Trainer must be proficient in estimating soil textures.
- Obtain samples of sand, silt, and clay.
- A “Texture by Feel” flow chart is a beneficial guide for the trainee (see attachment).

**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.

**Prerequisite Modules**:
None

**Notes**:
This activity may cause spills of soil or water. Dust is likely. Hands and fingers will become dirty and may also become rough and chapped.

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The Five-Step OJT Cycle for **Procedural** Training (Skill)
# OJT Module Lesson

**Title:** 1201 How to determine soil texture in the USDA Soil Classification System.

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cycle step 1</strong></td>
<td>Review objectives and prepare for module. Complete the following:</td>
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</table>
| 1. Trainer and trainee should review the objectives and field procedure for determining soil texture. | Trainer and trainee should access via the internet and/or hardcopy (Field Book) and read/review:  
- Soil Survey Manual, chapter 3:  
  - Soil Texture  
- Field Book for Describing and Sampling Soils  
  - Soil Texture |
| 2. Discuss the physical characteristics of sand, silt, & clay. | Refer to attached:  
- Figure-Size of particles |
| 3. Discuss the 12 particle size classes. | Open the attachment: Textural Triangle.pdf.  
Review the Textural Triangle and the textural class definitions in the Soil Survey Manual. |
| **Cycle step 2** | Do the following: |
| 1. Discuss the field method for determining soil texture. | Open the attachment: Texture by Feel.pdf. |
| 2. Prepare samples for texturing. | Trainer shows trainee how to place 1-2 tablespoons of the soil sample in the palm of the hand, moisten & mix the sample to a putty-like consistency. |
| 3. Estimate the texture. | Trainer shows trainee how to use the “Texture by Feel” flowchart to estimate the soil texture class.  
- Attempt to form a ribbon.  
- Wetting a sample further, feel for grittiness. |
| 4. Evaluate the results. | Compare the sample to known data (if available) or to trainer decision upon texturing to determine if the trainee has an understanding. |
| **Cycle steps 3 and 4** | Do the following: |
| Select another sample and repeat the process. | Have trainee repeat with another sample as trainer observes.  
- Trainee should be able to correctly select the texture, or  
- Place the texture in an adjacent textural class horizontally or vertically within the “Texture by Feel” flowchart. |
| **Cycle step 5** | Repeat until satisfied with trainee’s activity. |
## OJT Module Lesson Measurement of Learning

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<td>Provide two or more samples, either with data or known based on trainer experience.</td>
<td>Trainee provides texture for each sample without guidance from trainer. Permit use of the “Texture by Feel” flowchart.</td>
</tr>
<tr>
<td>Repetition</td>
<td>Repeat until satisfied that trainee knows what he or she is doing.</td>
</tr>
<tr>
<td>Repetition</td>
<td>If desired by trainee, attempt texturing samples without the flowchart.</td>
</tr>
</tbody>
</table>

**SF-182**

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