# OJT Training Module Cover Sheet

**Title:** 407 Bulk Density-How to sample with oriented clods.

**Type:** X Skill  □ Knowledge

**Performance Objective:** Trainee will be able to …
- Demonstrate the oriented clods method for collecting bulk density samples.
- Understand that clod samples are also collected for thin section and micromorphological examinations.
- Give examples of situations when specific methods should be used over other methods.

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

**Trainer Preparation:**
- Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.
- If possible, time training so that it coincides with sampling soils in the field as part of a sampling project.

**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:**
- □ 406 Understand the standard procedures for sampling soils--overview.

**Notes:**
This module may be done concurrently with OJT modules:
- □ 408 Bulk Density-How to sample with the core method.
- □ 409 Bulk Density-How to sample with the compliant cavity method.
- □ 410 Bulk Density-How to sample with the ring excavation method.
- □ 411 Bulk Density-How to sample with the frame excavation method.

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

### Title: 407 Bulk Density-How to sample with oriented clods.

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<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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| Cycle step 1 | Trainer and trainee access via the internet and read/review:  
  - Soil Survey Field and Laboratory Methods Manual, SSIR #51:  
    - Field Assessment and Sampling Strategies  
    - Pedon Sampling Techniques (paragraphs for bulk density clods) |
| Cycle step 2 | Trainer demonstrates to trainee the collection of 3 clods for primary analysis. Emphasize the importance of keeping track of the top of the clod so that the clod can be cut in the correct direction in the laboratory.  
  Note that during sampling, 2 additional clods are collected for thin section and micromorphological examination.  
  Trainer compares this method with the benefits of each other method and situations when each should be used. Explain that these methods are used for all soil survey studies, including characterization, rapid carbon assessment, and soil change. |
| Cycle step 3 | Coaching the trainee, have the trainee collect additional clods. |
| Cycle step 4 | Repeat cycle step 3 without coaching.  
  During project activities, assign the trainee the task of collecting clods for analysis. |
| Cycle step 5 | Answer any questions. Repeat any steps as necessary. |
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<td>Sample oriented clods 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.