**Title:** 306 Understand the concept of typical or representative pedons in soil survey.

<table>
<thead>
<tr>
<th>Type:</th>
<th>☐ Skill  ☑ Knowledge</th>
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**Performance Objective:** Trainee will be able to …
- Understand what is a typical or representative pedon.
- Understand the function of the typical or representative pedon.

**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.

**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:**
None

**Authors:**
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**Approved by:**
Shawn McVey
The Five-Step OJT Cycle for Declarative Training
(Knowledge)

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

- **Cycle Step 2**
  - Trainee reviews materials provided

- **Cycle Step 3**
  - Trainer and Trainee discuss information

- **Cycle Step 4**
  - Trainer observes Trainee perform task provided as feedback

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

**Title:** 306 Understand the concept of typical or representative pedons in soil survey.

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle step 1</td>
<td>Trainer and trainee review the objectives and agree on the purpose of this module.</td>
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</table>
| Cycle step 3 | 1. Discuss with trainee the fact that most of the reading was done to address the pedon as a sampling unit and that there are size criteria in soil survey. Give examples of soils in your survey area that should be represented horizontally by pedons of:  
   - 1 m² (the majority of our soils)  
   - 2-7 m² (a few of our soils)  
2. Review with the trainee NSSH Part 614.06 a. 5. Relate this concept to a component in soil survey.  
3. Discuss how representative pedons for the component were selected in the older initial soil surveys we are updating.  
   i. Usually forced to match the series concept.  
   ii. [Other method by your experience]  
4. Discuss how a component differs from a series, mainly in that a component’s range in characteristics may differ from that of the series, but the representative pedon is still within those ranges.  
   i. Narrower (show examples of components with narrower ranges than the series permits in your survey area).  
   ii. Broader in some properties (constitutes a |
taxadjunct to the series—show examples in your survey area.)
5. Discuss how the typical pedon for the official series description is often now used as the representative pedon for a component in our MLRA soil surveys. Show examples in your survey area if this is done.

Cycle steps 4 & 5

Answer any questions from the trainee and make sure the trainee is comfortable with the concept of typical or representative pedons in soil survey.

OJT Module Lesson Measurement of Learning

Title: 306 Understand the concept of typical or representative pedons in soil survey.

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<th>WHAT</th>
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<tr>
<td>Quiz</td>
<td>Complete the quiz below.</td>
</tr>
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</table>

SF-182

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

1. According to Guy Smith, because you can have an infinite number of pedons in most soils in a few acres, the pedon can be nothing more than an arbitrary sampling device.
   a. True
   b. False

2. The typical pedon is a reference specimen that illustrates the central concept for a series (and component).
   a. True
   b. False

3. The representative pedon should lie reasonably near the center of the ranges for _______ physical and chemical properties and for the geographic distribution.
   a. All
   b. Most
   c. Some
   d. Not an issue

4. Based on our current concept of a soil pedon, a root channel that has filled completely with soil material from above is:
   a. A separate pedon
   b. A part of the surrounding pedon

5. For a component, all properties of the typical or representative pedon must reside within the ranges set for the component.
   a. True
   b. False

6. For a component, all properties of the typical or representative pedon must reside within the ranges set for the series for which it is referenced.
   a. True
   b. False