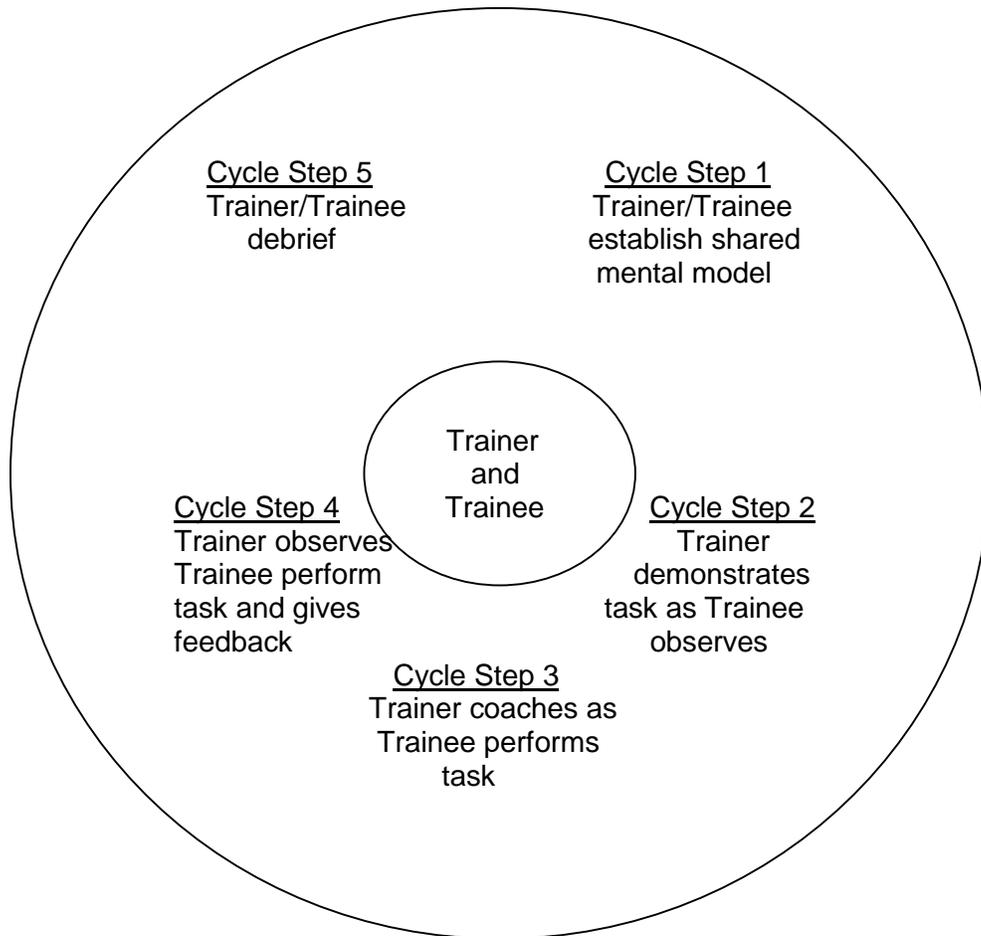


OJT Training Module Cover Sheet

Title: 1210 How to conduct a soil compaction test
Type: <input checked="" type="checkbox"/> Skill <input type="checkbox"/> Knowledge
Performance Objective: Trainee will be able to... <ul style="list-style-type: none">• Measure soil compaction using an impact penetrometer.
Target Proficiency: <input type="checkbox"/> Awareness <input type="checkbox"/> Understanding <input type="checkbox"/> Perform w/ supervision <input checked="" type="checkbox"/> Apply independently <input type="checkbox"/> Proficiency, can teach others
Trainer Preparation: <ul style="list-style-type: none">• Be familiar with the assigned reading and review material in the lesson plan that follows.
Special Requirements: Never use the penetrometer near buried power cables or pipelines. Wearing earplugs and gloves is recommended. Always keep hands and feet away from the strike plate during operation.
Prerequisite Modules: None
Notes: Penetrometers are very sensitive, needing an adequate soil moisture content. Differences in soil series, soil textures, claypans, and other natural restrictions should be noted when comparing sites. Qualitative methods are often better suited. These methods include digging a hole and observing lateral root growth patterns, observing soil structure (platy structure vs. massive), noting poor plant vigor in compacted areas, and using a wire flag.
Authors: Johanna Pate Mike Kucera Craig Busskohl
Approved by: Shawn McVey

The Five-Step OJT Cycle for Procedural Training (Skill)



OJT Module Lesson

Title: 1210 How to conduct a soil compaction test	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Cycle Step 1	<p>You and trainee review the objectives of the module.</p> <p>You and trainee read and review:</p> <ul style="list-style-type: none"> • Monitoring Manual for Grassland, Shrubland and Savannah Ecosystems, Volume II: Design, supplementary methods and interpretation. <ul style="list-style-type: none"> ○ Compaction test (Section II: Supplementary methods, Chapter 7) ○ A sample location or a soil type with suspected compaction should be compared to another similar site that does not have compaction. <p>Note: An electronic copy of reference material can be downloaded from numerous sites.</p>
Cycle Step 2	<p>Follow the steps provided in the <u>Monitoring Manual for Grassland, Shrubland and Savannah Ecosystems, Volume II</u> for a soil compaction test to compare sites:</p> <ul style="list-style-type: none"> • Materials • Define hammer drop height to be used based on soil conditions present • Define maximum depth available based on soil conditions present • Select sample locations randomly • Determine soil moisture state (dry, moist, wet) • Record dominant vegetative cover class for each sample location • Check hammer drop height • Determine cumulative number of hammer strikes required • Safely remove the penetrometer from the ground • Maintenance of the cone • Soil Compaction-Impact Penetrometer Data Form • Compaction test indicator calculations
Cycle Step 3	Coach trainee as trainee completes a soil compaction test.
Cycle Step 4	Repeat Cycle Step 3 without coaching.
Cycle Step 5	Provide feedback and debrief trainee. Reinforce specific items as needed until trainee is able to independently conduct a soil compaction test.

OJT Module Lesson Measurement of Learning

Title: 1210 How to conduct a soil compaction test	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Trainee's learning is measured.	During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.
Follow-up	Follow-up should be done within 6 months to make sure training is retained.

Performance Report Form

<p>Complete attachment: Trainee Performance Report Form template.pdf</p> <p>or</p> <p>SF-182 Trainee and/or supervisor access AgLearn to verify completion of the module via its SF-182</p>
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