

OJT Training Module Cover Sheet

Title: **Soil Salinity (#1 of 3) – The What, Where, and How of Salinity Development**

Type: Skill **Knowledge**

Performance Objective: Trainee will understand:

- what a saline soil is
- the difference between saline area vs. saline seep
- where saline areas/seeps normally occur
- how saline areas/seeps develop

Target Proficiency:

- Awareness **Understanding** Perform w/ Supervision
 Apply Independently Proficiency, can teach others

Trainer Preparation:

Acquire and review: Soil Quality Information Sheet – Soil Quality Resource Concerns: Salinization; Soil Quality Test Kit Guide (p.59); Plant Materials for Salt-Affected Sites in the Northern Great Plains; and Saline Seep Diagnosis, Control, and Reclamation (pp.1-4).

Special Requirements:

Prerequisite Modules:

- How to identify landscapes, landforms, and surface morphometry.

References:

- ¹**Soil Quality Information Sheet** – Soil Quality Resource Concerns – Salinization, USDA NRCS January 1998. <http://soils.usda.gov/sqi/publications/files/Salinization.pdf>
- ²**Soil Quality Test Kit Guide** – USDA ARS, NRCS, Soil Quality Institute, August 1998. http://soils.usda.gov/sqi/assessment/files/test_kit_complete.pdf
- ³**Plant Materials for Salt-Affected Sites in the Northern Great Plains.** USDA, NRCS, Bismarck, ND. March 2007. 8p. (ID# 7094) <http://www.plant-materials.nrcs.usda.gov/pubs/ndpmctn7094.pdf>
- ⁴**Saline Seep Diagnosis, Control, and Reclamation**, USDA ARS, Conservation Research Report Number 30, 1982.

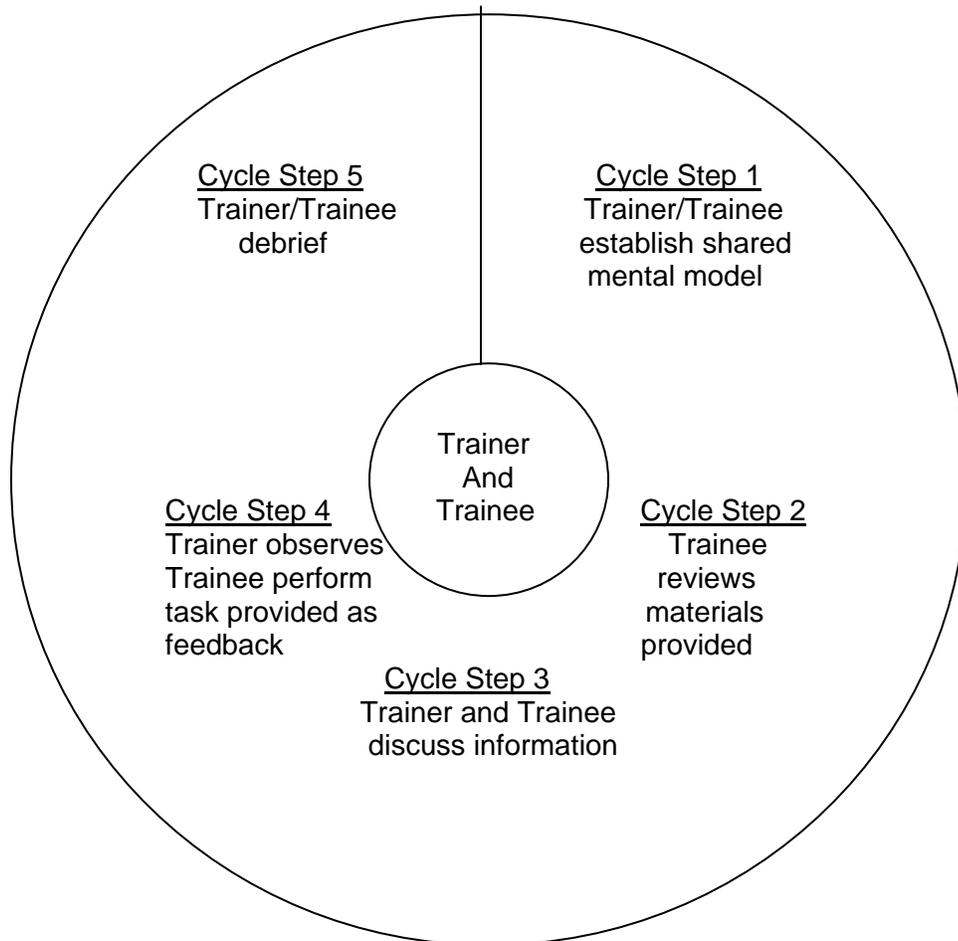
Authors:

- Kent E. Cooley, Soil Scientist, South Dakota

Approved by:

- Marc Crouch, Training Coordinator, NSSC
- Craig Ditzler, National Leader, Classification and Standards, NSSC

The Five Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

| Title: Soil Salinity – The What, Where, and How of Salinity Development | |
|---|---|
| WHAT | WHY, WHEN, WHERE, HOW, SAFETY, QUALITY |
| First of 3 related soil salinity modules to be completed together | |
| | Trainee should read/review the references provided. |
| Understand what a saline soil is. | Define salinization (see reference ¹), electrical conductivity (see reference ² p.59), and a saline soil (EC > 4 dS/m, types of salts). Discuss the difference between saline seep, discharge saline area, and saline-sodic area. (see references ^{1,3}) |
| Understand where and how saline areas form. | Classroom Exercise - Identify key hillslope positions where saline areas form (review saline seep development diagrams (see reference ⁴); discuss management practices that promote development of saline areas (overgrazing, fallow in crop rotations, etc.). |
| | |

OJT Module Lesson Measurement of Learning

| | |
|---|---|
| Title: | |
| WHAT | WHY, WHEN, WHERE, HOW, SAFETY, QUALITY |
| See 3 rd module for measurement of learning activity | |
| | |

Performance Report

See third module in this series for report for all three modules.