

OJT Training Module Cover Sheet

Title: **Soil Salinity (#3 of 3) – Effects and Management.**

Type: Skill **Knowledge**

Performance Objective: Trainee will:

- understand the effects of soil salinization on plant growth
- learn basic management practices for controlling saline areas

Target Proficiency:

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

Trainer Preparation:

Acquire and review: Saline Seep Diagnosis, Control, and Reclamation, Agricultural Resource Conservation Program 2 CRP (Rev. 4) Exhibit 9 – CP-18B and C, Plant Materials for Saline-Alkaline Soils, and Plant Materials for Salt-Affected Sites in the Northern Great Plains.

Special Requirements:

CAUTION - Be able to traverse uneven surfaces in the field and operate a spade or other digging tool.

Prerequisite Modules:

Soil Salinity – Identification and Measurement.

References:

-¹ **Plant Materials for Saline-Alkaline Soils.** Technical Note Plant Materials No. 26(Revised), USDA, NRCS - Bridger, Montana, October 1, 1996.

<http://www.plant-materials.nrcs.usda.gov/pubs/mtpmctn261096.pdf>

-² **Saline Seep Diagnosis, Control, and Reclamation,** USDA ARS, Conservation Research Report Number 30, 1982.

-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 **Agricultural Resource Conservation Program 2 CRP (Rev. 4) Exhibit 9**

http://www.fsa.usda.gov/Internet/FSA_File/2-crp.pdf

-Others suitable for local area

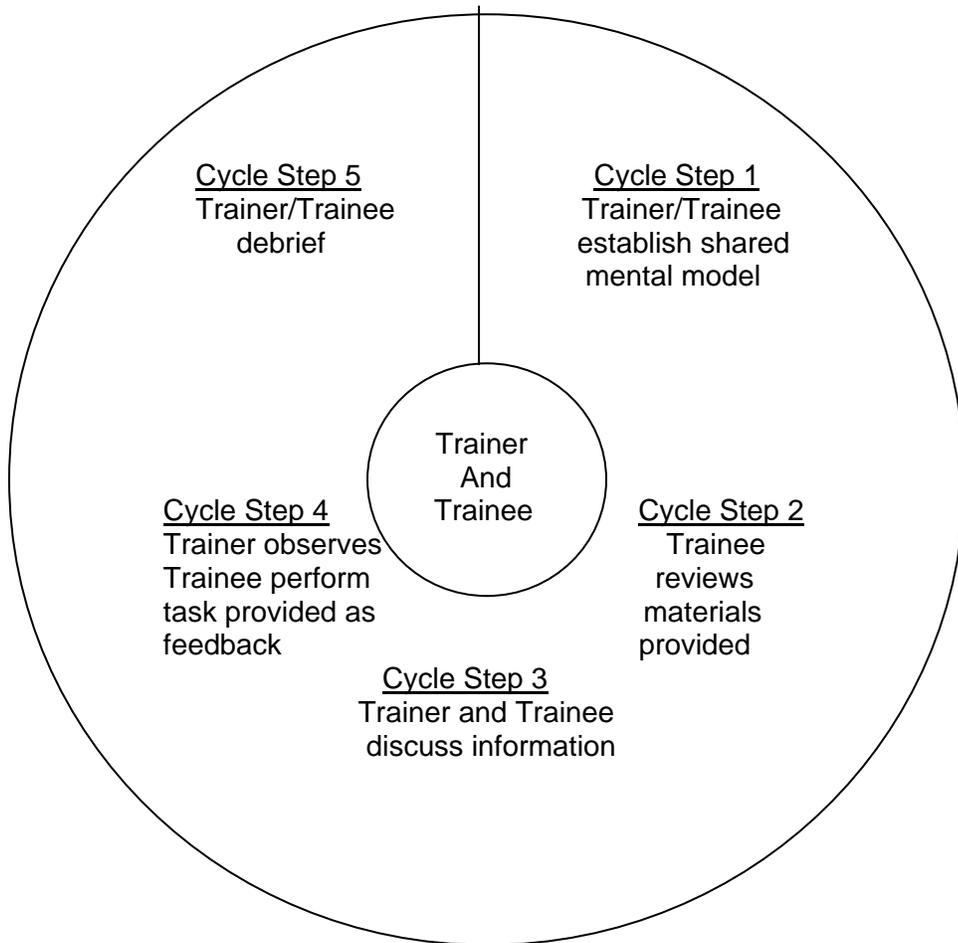
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The Five Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

Title: Soil Salinity – Effects and Management.	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Third of 3 related soil salinity modules to be completed together	
	Trainee should read/review the references provided.
Understand the effects of soil salinization on plant growth.	Class Exercise – discuss the effects of salinity on plant physiology (see reference ¹) (water/nutrient uptake and toxicity).
How to manage saline areas.	Class or Field Exercise – Discuss management options to remove excess soil water from the profile to control seeps (see reference ² pgs 9-12) (proper grazing management, continuous cropping, use of perennial crops or trees in recharge areas); review salt tolerance of plant species (see references ^{1, 3}), and review USDA programs designed to aid in control of saline areas (CRP - CP18A, B, and C) (see reference ⁴).

OJT Module Lesson Measurement of Learning

Title:	
WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Office and field exercise for 3 related soil salinity modules	Trainer selects a field site for trainee to apply learning.
	Trainee should then prepare a report that includes: <ul style="list-style-type: none">• Identify the hillslope position• Identify the salinity indicators present• Provide observations as to why the seep(s) formed• Take and record an EC reading• Report the comparable salinity class from the table referenced• Identify management options

Performance Report

Open attachment Trainee Performance Report Form template.pdf