OJT Training Module Cover Sheet

Title: 1010 Soil Salinity – understand the effects and management practices to apply.

Type: □ Skill **X** Knowledge

Performance Objective: Trainee will:

- Understand the effects of soil salinization on plant growth.
- Recognize basic management practices for controlling saline areas.

Target Proficiency:

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

Prerequisite Modules:

- 1104 How to identify landscapes, landforms, and surface morphometry-overview.
- 1008 Soil Salinity – Understand salinity development.
- 1009 Soil Salinity – how to Identify and measure.

Notes:

None

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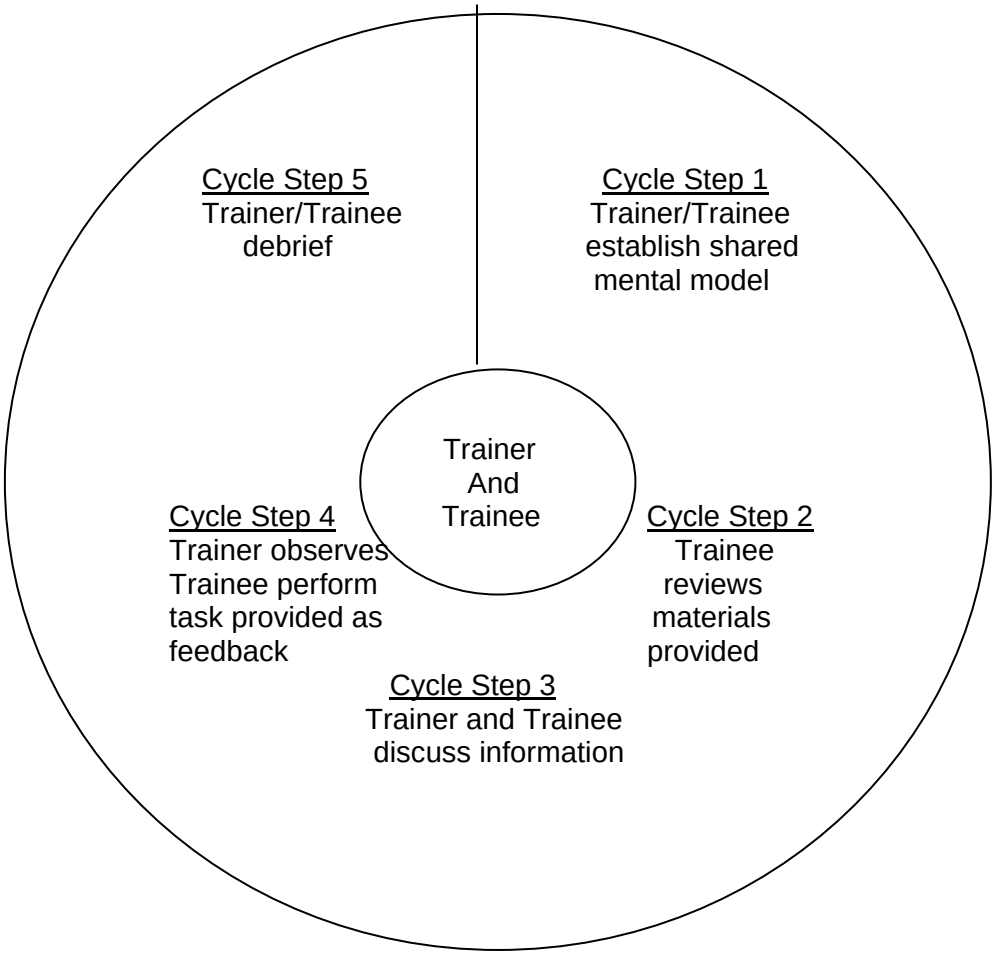
The Five-Step OJT Cycle for Declarative Training (Knowledge)



OJT Module Lesson

Title: **1010 Soil Salinity – understand the effects and management practices to apply.**

WHAT	WHY, WHEN, WHERE, HOW, SAFETY, QUALITY
Third of three related soil salinity modules to be completed together.	
Cycle step 1	Review objectives and locate references used as job aids for this module.
Cycle step 2	Trainer and trainee should access via the internet and read/review: • -[1]PLANTS for SALINE to SODIC SOIL CONDITIONS**.** Technical Note Plant Materials No. 9a, USDA, NRCS - Bridger, Montana, October, 2009. • -[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) • -[4]Agricultural Resource Conservation Program 2 CRP (Rev. 4) Exhibit 9
Cycle steps 3 & 4	Do the following:
1. 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).
2. 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]).
Cycle step 5	Instructor summarizes what has been learned and lead into the next related module.

OJT Module Lesson Measurement of Learning

Title: **1010 Soil Salinity – understand the effects and management practices to apply.**	
WHAT	**WHY, WHEN, WHERE, HOW, SAFETY, QUALITY**
Office and field exercise for three related soil salinity modules	Trainer selects a field site for trainee to apply learning.
	Trainee should then prepare a report that demonstrates the ability to: • 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.

SF-182

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