



Natural Resources Conservation Service
101 SW Main Street; Suite 1300
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Irrigation Scheduling

Introduction

- The material provided in this section is intended to serve as a framework for irrigation scheduling training.
- Scheduling strategies and tools are addressed in this training as an aid to irrigation decision makers in determining when to irrigate and how much water to apply.
- Trainers should modify the training materials referenced as necessary to achieve the planned skill level for the trainees.
- Trainers are encouraged to include locally developed training materials to complement and/or supplement the referenced material.
- As new training materials are developed, trainers are encouraged furnish copies to the National Employees Development Center for inclusion in future additions to the Toolbox.

Suggested Objectives

- Determine available water-holding capacity of the root-zone (WHC).
- Determine soil moisture content.
- Given the Management Allowed Depletion (MAD) and consumptive use rate, determine when to irrigate and how much water to apply.
- Perform irrigation scheduling using various methods ranging from the feel and appearance method to computer assisted programs.

Suggested Items To Consider

- Water Holding Capacity (WHC) of soils in root zone.
- Management allowed depletion (MAD).
- Allowable plant stress.
- Soil Moisture Release Curves.
- When to irrigate.
- How much to apply.
- Estimate crop Evapotranspiration rates (ET) - various models.
- Irrigation scheduling methods.
- Soil and crop monitoring.
- Crop water use monitoring.



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- Soil moisture monitoring.
- Checkbook method.
- Computerized assisted methods.



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Reference Material

- SCS Scheduler 3.0 Software and Users Manual, Contact John Barclay, NRCS, Michigan.
- Irrigation Guide, Chapter 9.
- National Engineering Handbook 623-Chapter 2.

Toolbox Material

- Publication "Irrigation Scheduling: A Water Quality Must!", NRCS, Franklin Conservation District, Pasco, WA
- Publication "Scheduling Irrigations: A Guide For Improved Irrigation Water Management Through Proper Timing and Amount of Water Application", SCS, ARS, Cooperative Extension, CO
- Videos "Introducing Irrigation Scheduler", IMC, Michigan State University, MI
- Video "Agricultural Irrigation Scheduling - The Irrrometer Story", Irrrometer Company

Facilitation Options

- Self-paced,
- Facilitator guided, or
- Formal training course.

Evaluation

Each state should develop an evaluation procedure which addresses the level of competence desired before and after training is provided.