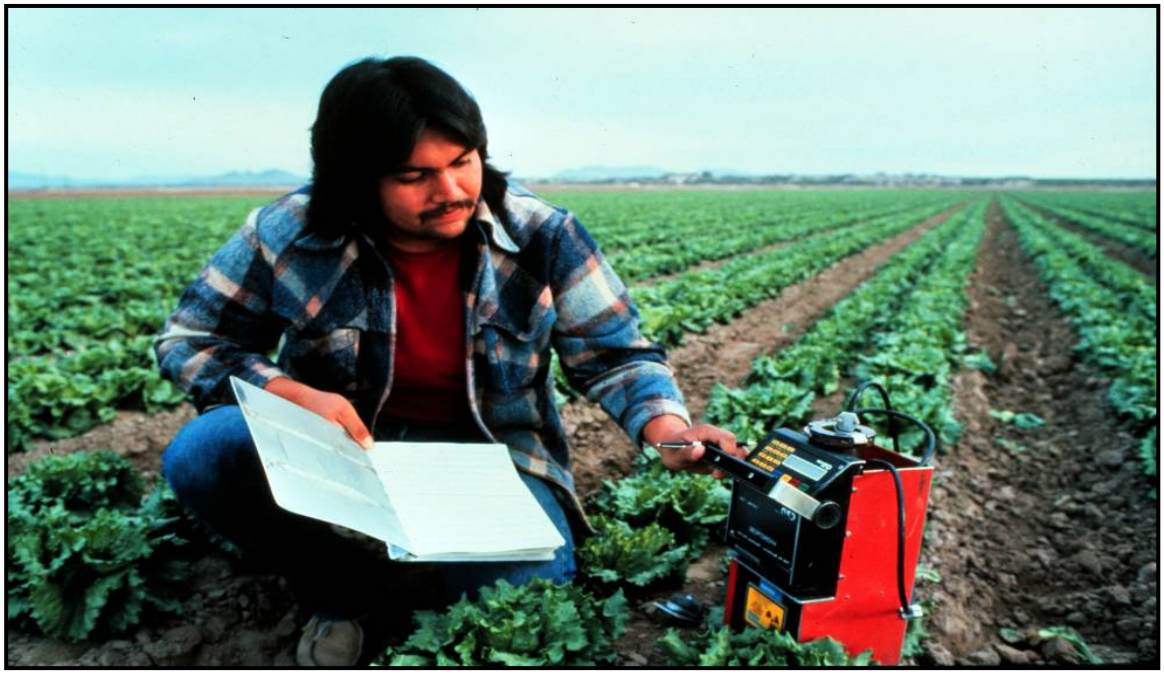
# IRRIGATION WATER MANAGEMENT Code 449

## PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - Practice Code 449



**IRRIGATION WATER MANAGEMENT**

Determining and controlling the rate, amount, and timing of irrigation water in a planned and efficient manner.

## PRACTICE INFORMATION

The purpose of this practice is to effectively use available irrigation water in managing and controlling the moisture environment of crops and other vegetation. The objectives are to promote a desired response, minimize soil erosion, minimize loss of plant nutrients, and protect both the quantity and quality of water resources.

This practice is applicable to all areas that are suitable for irrigation and have a water supply of suitable quality and quantity. In addition, a suitable irrigation system must be available and the irrigator needs to have the knowledge and capability to manage irrigation water. The following knowledge is required to properly manage irrigation water:

1. How to determine when to apply water based on the rate of use by the crops at various stages of growth.
2. How to measure or estimate the amount of water required for each irrigation.
3. The time needed for the soil to absorb the required amount of water.
4. How to detect changes in intake rate.
5. How and when to adjust stream size, application rate, and irrigation time to compensate for changes in the soil or topography that effect intake rate.
6. How to recognize erosion caused by irrigation.
7. How to evaluate the uniformity of water application.

Evaluating the efficiency of applying irrigation water is expensive and time consuming. Therefore, the physical irrigation system and the technician's evaluation of the irrigators knowledge is acceptable in determining whether or not good irrigation water management is being practiced.

Additional information including standards and specifications are filed in the local NRCS Field Office Technical Guide.

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

# Irrigation Water Management Practice

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