Irrigation System, Sprinkler

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 442

DEFINITION

A sprinkler irrigation system is a planned system in which all necessary components have been installed for efficient application of irrigation water by means of nozzles operated under pressure.

PRACTICE INFORMATION

Sprinkler irrigation designs are based on an evaluation of the site considering soil, topography, water supply, energy supply, crops to be grown, labor requirements, and expected operating conditions.

The purpose of a sprinkler system is to efficiently and uniformly apply irrigation water to the crops or soil without causing erosion, excessive water loss, or reduction in water quality.

An irrigation system must be designed as an integral part of a conservation plan based on the capabilities of the natural resources and the needs of the farm enterprise.

The most efficient type of system should be planned. For example, surface or flood type irrigation systems may not be adapted to the site if the soils are sandy. Sprinkler irrigation systems are a better choice for sandy soils. Conversely, if the soils are very slowly permeable (clayey), the site may not be well adapted to sprinkler irrigation due to excessive runoff and erosion.

Additional information including design criteria and specifications are in the local NRCS Field Office Technical Guide.