United States Department of Agriculture

Vermont

Conservation Practice Overview

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Irrigation Water Management (Code 449)

The process of determining, measuring, and controlling the volume, timing, and application rate of irrigation water.

Practice Information

Irrigation water management is primarily used to manage soil moisture to promote plant growth. It can also be used to optimize use of available water supplies, minimize irrigation-induced erosion, reduce surface and ground water pollution, manage salts in the root zone,improve poor plant productivity and health, reduce energy use,and provide for safe chemigation or fertigation. Additional uses include management of air, soil, or plant microclimates and dust control.

Proper irrigation scheduling is the most critical component of this practice. The operator must understand when it is time to irrigate, how much water to apply, and where the water is going when it is applied. The operator must also know how to prevent erosion and ground water contamination and how to adjust the system to account for these concerns. Additional specialized requirements apply to surface, subsurface, and pressurized irrigation systems.

When irrigation is used for chemical, nutrient, or wastewater application, it should be scheduled to coincide with the irrigation cycle in order to avoid excess runoff to surface water or leaching to ground water.

Irrigation water management is an annual practice that may change with the crops grown.

Common Associated Practices

NRCS Conservation Practice Standard (CPS) Irrigation Water Management (Code 449) is a required component when CPSs Sprinkler System (Code 442), Irrigation System, Microirrigation (Code 441), or Irrigation System, Surface and Subsurface (Code 443) are used.

For further information, contact your local NRCS field office.