



Definition

The process of determining and controlling the volume, frequency and application rate of irrigation water in a planned, efficient manner.

Purpose

Irrigation water management (IWM) may be applied as part of a resource management system to achieve one or more of the following purposes:

- Manage soil moisture to promote desired crop response.
- Optimize use of available water supplies.
- Minimize irrigation induced soil erosion.
- Decrease non-point source pollution of surface and groundwater resources.
- Manage air, soil, or plant micro-climate.
- Proper and safe chemigation or fertigation.
- Improve air quality by managing soil moisture to reduce particulate matter movement.
- Reduce energy use.

Where Used

An irrigation system adapted for site conditions (soil, slope, crop grown, climate, water quantity and quality, air quality, etc.) must be available and capable of efficiently applying water to meet the intended purpose(s).

Conservation System

The irrigation system function is evaluated using performance measures such as water delivery, pressure and flow rate. An Irrigation Water Management Plan is developed to assist the irrigator in the proper management and application of irrigation water. The plan will address irrigation scheduling (timing and amount of irrigations), along with control of runoff from the irrigated field.

Recommendations for system hardware upgrade may be included with the IWM plan, if needed to ensure that the uniformity of irrigation water application is adequate, or to address potential energy savings.

