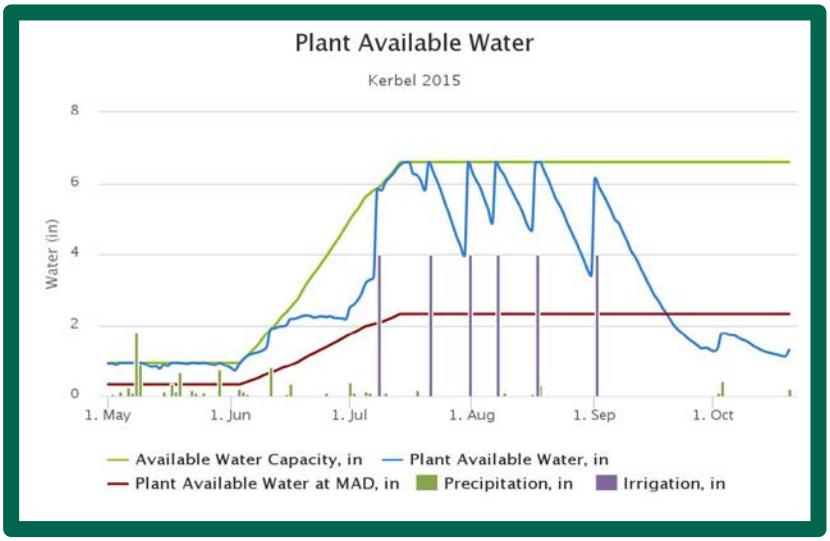
Best Management Practices

Irrigation Scheduling



DESCRIPTION

Irrigation scheduling is involves using techniques to apply the right amount of water at the right time to prevent crop stress and Careful irrigation water management is critical to not only water conservation but nutrient management. Soil moisture sensing can provide information on soil water depletion, distribution and irrigation water requirements. A variety of soil moisture sensors are available to

RESOURCES

Wise.colostate.edu

CSU Extension, Irrigation Scheduling: The Water Balance Approach.
USDA-NRCS *FOTG 590 CO*

TRACKING SOIL MOISTURE

- The soil in the root zone has an upper as well as a lower limit of storing water that can be used by crops.
- Tracking soil moisture to improve irrigation scheduling saves time, energy, nutrients and water.
- Technology improvements in sensing technology and data acquisition have made soil moisture sensing more practical and easier.
- Sensors should be placed in the most representative soil type in a field. In furrow irrigation, 2/3 down the length of the field is typically best.
- As the crop grows and extracts water from the soil to satisfy its ETc requirement, the stored soil water is gradually depleted.

IMPLEMENTATION REQUIREMENTS

Cost= MEDIUM
Operation and Maintenance= LOW
Training= MEDIUM

NUTRIENT IMPACT

Nitrate leaching can be significantly reduced by applying water to the root zone in the correct time and amount.

Phosphorus loading increases with each additional irrigation above requirements, especially in surface irrigation.