



Verde Natural Resource Conservation District

Small to Large Farm Irrigation: Save Water & Produce More

Irrigating efficiently can achieve multiple goals including saving water and time, improving plant health, and maximizing production of crops or pasture. Because each farm is unique, finding the best protocol for your individual situation is important and can be challenging. This handout provides information and resources to help you achieve your irrigation goals.

Best Management Practices (BMPs) for agricultural water use include methods, techniques, and structural elements to achieve production goals while protecting water quality and reducing water use. The following are examples of agricultural irrigation BMPs:

- Irrigation scheduling, including frequency, duration, rate, time of day, and seasonality
- Irrigation type, such as surface irrigation (flood, furrow), sprinkler system, drip
- Identifying relevant factors such as soil type, plant needs, depth of root zone, soil moisture, soil permeability, soil organic matter, evaporation/transpiration rates
- Managing irrigation and soil nitrogen levels to improve crop productivity and minimize nitrogen runoff or leaching
- Improving irrigation system efficiencies, consistency of water distribution

Resources

Technical Bulletins

Many technical bulletins are available online from a variety of sources such as universities and state and federal agencies. Several are listed below with their source.

- Best Management Practices for Irrigation Management; Colorado State University Cooperative Extension
- Best Management Practices for Agricultural Water Users; Texas Water Development Board

- Smart Water Use on Your Farm or Ranch; Sustainable Agricultural Network
- Irrigation Scheduling; Colorado State University Extension
- Determine the Amount of Irrigation Water Applied to a Field; Arizona Cooperative Extension
- Measuring Water Flow and Rate on the Farm; Arizona Cooperative Extension
- Drip Irrigation: The Basics; Arizona Cooperative Extension
- Subsurface Drip Irrigation; Colorado State University Extension

Technical Assistance

Technical assistance can be obtained from a number of sources. Information about Arizona technical assistance programs can be found online in the following document: Technical Assistance Programs for Agricultural Irrigation Improvements in Arizona, provided by the Arizona Cooperative Extension. Several local agencies provide free technical assistance to farms, including the Verde Natural Resources Conservation District, Yavapai County Cooperative Extension, and the Flagstaff Office of the Natural Resources Conservation Service. The NRCS provides financial assistance for improvement projects that meet funding criteria.

This information has been provided by the Verde Natural Resources Conservation District. For more information, email us at nrcdverde@gmail.com.