

Water Conservation Management Program

NEWSLETTER

September 2024

IRRIGATION SCHEDULING

Irrigation scheduling is a critical component of Arizona crop management systems and consistently proves to be a great challenge.

Irrigation scheduling is deciding *when* to irrigate and *how much* water to apply. Good scheduling will apply water at the right time and in the right quantity to optimize production and minimize adverse environmental impacts. Irrigating too early or too late can result in under-watering or over-watering, both leading to reduced yields, lower quality, and inefficient use of nutrients. In order for an irrigation manager to decide when to irrigate he should know the daily water use of the crop, the water-holding capacity of the soil, the lower limit of soil moisture for each crop and soil and measuring the amount of water applied to the field.

Various methods and tools have been developed to determine when crops require water and how much irrigation water needs to be applied. Visual observation of the plant and soil, gravimetric soil moisture sample, tensiometers, electrical resistance blocks, water budgeting, and modified atmometer, are common methods and tools used to effectively manage irrigation frequency.



One of the most reliable, inexpensive, methods, however, is visual observation of the plant and soil by observing the crop and assessing the feel and appearance of the soil and the changes in the plant characteristics, such as changes in color, curling of the leaves, and ultimately plant wilting. Visual observation is quick and relatively easy and it doesn't require investment in equipment or technical support. However, extensive experience is required to use it effectively mainly due to limitations of assessing subsoil moisture conditions properly.

The WCMP can help you manage your irrigation scheduling. Call the WCMP today to schedule your free irrigation management service 480.466.2968.

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The WCMP provides irrigation services that help improve irrigation efficiency and save you money. Through a cooperative effort between the Buckeye Valley Natural Resource Conservation District and the Arizona Department of Water Resources, the WCMP is a free irrigation management services program helping to sustain production agriculture in the Phoenix AMA. The WCMP provides water measurement, slope determination, irrigation scheduling assistance, irrigation system performance evaluations, and practical recommendations to help improve irrigation efficiency.

Call today to experience the value of the WCMP 480.466.2968

