

Water Conservation Management Program

NEWSLETTER

September 2019

SIPHON TUBE DISCHARGE (GPM)

Head	1"	1-1/4"	1-1/2"	2"	3"
2"	5	8	12	20	45
3"	6	10	14	24	55
4"	7	11.5	16	28	65
5"	8	13	18	32	74
6"	9	14	20	36	81
7"	10	15.25	22	40	87
8"	10.75	16.5	24	43	93

1 gallon = 8.3 pounds
 1 cubic foot = 7.48 gallons = 62.4 pounds
 450 gallons per minute (gpm) = 1 cubic foot per second
 1 cubic foot per second (cfs) = 1 acre-inch per hour
 1 acre-inch = 27,000 gallons = 1 acre flooded 1 inch deep
 1 acre foot = 12 acre-inches = 43,560 cubic feet = 325,900 gallons
 1 gallon = 3.785 liters = 0.003785 cubic meters
 1 cubic meter = 1000 liters = 264.2 gallons

IRRIGATION TERMS

Field Capacity

Maximum amount of water that a particular soil can hold

Available Water Holding Capacity (AWHC)

Amount of water in the root zone between plant wilting point and field capacity

Transpiration

Water movement through a plant and its evaporation from leaves, stems, and flowers

Evaporation

Evaporation of a liquid to a gaseous phase

Evapotranspiration (ET)

The sum of transpiration and evaporation

Field Application Efficiency (FAE)

The ratio between the amount of water needed to refill the soil profile and the amount applied

Irrigation Efficiency (IE)

The ratio between the amount of water beneficially used by the crop and how much was applied

Distribution Uniformity (DU)

How uniformly water is applied to an area being irrigated

The WCMP provides irrigation services that help improve irrigation efficiency and save you money. Through a cooperative effort between the East Maricopa 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 evaluations, pump energy analyses, and practical recommendations to help improve irrigation efficiency.

Call today to experience the value of the WCMP



Call the WCMP today!
 480.244.8394

IRRIGATION RESOURCES

East Maricopa NRC
 805 E. Warner Road #104
 Chandler, AZ 85225
 480.988.1078
www.emnrcd.org

ADWR
 3550 N. Central Ave
 Phoenix, AZ 85012
 602.771.8500
www.azwater.gov

USDA NRCS
 805 E. Warner Road #104
 Chandler, AZ 85225
 480.988.1078
www.nrcs.usda.gov

Agribusiness Council of Arizona
 1819 E. Southern Ave
 Mesa, AZ 85204
 480.558.5301
www.agribusinessarizona.org

WRRC
 350 N. Campbell Ave
 Tucson, AZ 85721
 520.621.9591
www.wrcc.arizona.edu