University of California **Agriculture and Natural Resources** Making a Difference for California



Kern UCCE/DWR Weekly Crop Water Use Report

2.01

WEEKLY CROP WATER USE - Based on local CIMIS Weather Stations (in inches)

(Estimated Crop Evapotranspiration or ETc) 09/06/21 through 09/12/21

SEE NOTE BELOW* SEE NOTE BELOW**** **Crops (Leafout Date) #5 Shafter** #125 Arvin-Edison #146 Belridge 08/30 -09/05 Accum'd 09/06 -09/12 08/30 -09/05 Accum'd 09/06 -09/12 08/30 -09/05 Accum'd 09/06 -09/12 Seasonal Estimated Seasonal Estimated Water Seasonal Estimated Water Use Use Water Use ETc Use Water Use ETc Use ETc Almonds (3/1) * 2.02 1.73 42.02 1.90 45.74 1.50 45.80 1.63 1.51 Pistachio (4/15) * ** 39.06 1.47 2.08 39.38 1.60 1.75 35.70 1.48 Citrus (2/1) 34.69 1.12 34.50 1.21 1.17 32.14 1.12 2.19 Grapes (3/24) (late season table, 75% cover) 1.99 2.23 35.94 2.00 Winegrapes (3/24) (50% cover) *** 0.79 0.82 0.73 19.94 0.74 Alfalfa (2/1) 49.85 1.59 1.37 49.50 1.50 46.07 1.38 29.39 Cotton (4/10) 1.51 1.64 1.83 1.52 0.00 0.00 0.00 Past 7 days precipitation (inches)

Accumulations started on the approximate leafout date for a specific orchard crop as indicated in parentheses. Criteria for beginning this report are based on the season's last significant rainfall event where the soil moisture profile is estimated to be near its highest level for the new season.

1.03

2.02

(since 1/1/2021)

Accumulated precipitation (inches)

*** Due to drought conditions these stations currently have insufficient vegetative cover to provide accurate ETo data. At this time, 146 Belridge is providing the best ETo data for Kern County. The "Estimated ET" for next week is based on the 20+ year average (normal year) ETo for that station and is still valid.

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1												
Crops		#5 Shafter				#125 Arvin-Edison				#146 Belridge		
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/1)	2.9	2.5	2.2	2:0	3:1	2.7	2.4	2:1	2.7	2.3	2.0	1.8
Pistachio (4/15)	3.0	2.6	2.3	2:0	3.2	2.8	2.4	2.2	2.7	2.3	2.1	1.8
Citrus (2/1)	2.0	1.7	1:5	1.4	2.1	1.8	1.6	1.5	1.8	1.6	1.4	1.2
Grapes (3/24) (late season table, 75% cover)	3.8	3.3	2.9	2.6	4.0	3.5	3.1	2.8	3.4	3.0	2.6	2.3
Winegrapes (3/24) (50% cover)	1.4	1.2	1.0	0.9	1.5	1.3	1.1	1:0	1.3	1.1	1.0	0.9
Alfalfa (2/1)	2.6	2.3	2.0	1.8	2.8	2.4	2.2	1.9	2.4	2.1	1.9	1.7
Cotton (4/10)	3.1	2.7	2.4	2:1	3.3	2.9	2.5	2.3	2.8	2.4	2.2	1.9

The amount of water required by a specific irrigation system to satisfy evapotranspiration. Typical ranges in irrigation system efficiency are: Drip, 80%-95%; Micro-sprinkler, 80%-90%; Sprinkler, 70%-85%; and Border-furrow,

For further information concerning all counties receiving this report, contact the Kern Co. Farm Advisor's office at 661-868-6200.

Estimates are for orchard floor conditions where vegetation is managed by some combination of strip applications of herbicides, frequent mowing or tillage, and by mid and late season shading and water stress. Weekly estimates of soil moisture loss can be as much as 25 percent higher in orchards where cover crops are planted and managed more intensively for maximum growth.

^{**} Very vigorous, non-salt affected peak season pistachio Kc can be as high as 1.19 – resulting in about 8% greater water use than shown in these tables.

^{***} Winegrapes irrigated at 50% of ETo starting June 1 to end of September.