University of California Agriculture and Natural Resources

Making a Difference for California



Kern UCCE/DWR Weekly Crop Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 04/24/17 through 04/30/17

| Crops (Leafout Date) | | #5 Shafter | | | #125 Arvin-Edison | | | | #146 Belridge | | | |
|--|-----------|------------|-------------|---|-------------------|-----------|-------------|---|---------------|-----------|-------------|--|
| | Past Week | Accum'd | Next Week's | | Past Week | Accum'd | Next Week's | | Past Week | Accum'd | Next Week's | |
| | of Water | Seasonal | Estimated | | of Water | Seasonal | Estimated | | of Water | Seasonal | Estimated | |
| | Use | Water Use | ETc | | Use | Water Use | ETc | | Use | Water Use | ETc | |
| Almonds (3/1) * | 1.34 | 6.88 | 1.38 | | 1.25 | 7.21 | 1.39 | | 1.31 | 6.91 | 1.38 | |
| Pistachio (4/1) * ** | 0.53 | 1.10 | 0.69 | | 0.50 | 1.11 | 0.69 | | 0.51 | 1.08 | 0.69 | |
| Citrus (2/1) | 1.10 | 8.09 | 1.07 | | 1.03 | 8.54 | 1.10 | | 1.06 | 7.81 | 1.09 | |
| Grapes (3/15) (late season table, 75% cover) | 0.69 | 2.08 | 0.57 | | 0.64 | 2.14 | 0.58 | | 0.69 | 2.09 | 0.57 | |
| Winegrapes (3/15) (50% cover) *** | 0.83 | 2.29 | 0.93 | | 0.79 | 2.38 | 0.94 | | 0.81 | 2.29 | 0.93 | |
| Alfalfa (2/1) | 1.54 | 11.29 | 1.56 | | 1.44 | 11.88 | 1.59 | | 1.50 | 10.89 | 1.58 | |
| Cotton (4/7) | 0.24 | 0.57 | 0.30 | | 0.21 | 0.58 | 0.31 | | 0.22 | 0.56 | 0.31 | |
| Past 7 days precipitation (inches) | | 0.00 | | · | | 0.00 | | · | | 0.00 | · | |
| Accumulated precipitation (inches) (1/1/17) | | 3.89 | | | | 4.67 | | | | 5.82 | | |

Dates in parentheses above, indicate leaf out or starting date for ET accumulation for the specific crop

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1

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|--|------------|-----|-----|-----|-----|-------------------|-----|-----|-----|---------------|-----|-----|--|
| 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) | 2.1 | 1.8 | 1.6 | 1.4 | 1.9 | 1.7 | 1.5 | 1.3 | 2.0 | 1.7 | 1.5 | 1.4 | |
| Pistachio (4/1) | 0.8 | 0.7 | 0.6 | 0.6 | 0.8 | 0.7 | 0.6 | 0.5 | 0.8 | 0.7 | 0.6 | 0.5 | |
| Citrus (2/1) | 1.7 | 1.5 | 1.3 | 1.2 | 1.6 | 1.4 | 1.2 | 1.1 | 1.6 | 1.4 | 1.2 | 1.1 | |
| Grapes (3/15) (late season table, 75% cover) | 1.1 | 0.9 | 0.8 | 0.7 | 1.0 | 0.9 | 0.8 | 0.7 | 1.1 | 0.9 | 0.8 | 0.7 | |
| Winegrapes (3/15) (50% cover) | 1.3 | 1.1 | 1.0 | 0.9 | 1.2 | 1.1 | 0.9 | 0.8 | 1.2 | 1.1 | 1.0 | 0.9 | |
| Alfalfa (2/1) | 2.4 | 2.1 | 1.8 | 1.6 | 2.2 | 1.9 | 1.7 | 1.5 | 2.3 | 2.0 | 1.8 | 1.6 | |
| Cotton (4/7) | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | |

¹ 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, 50%-75%.

For further information concerning all counties receiving this report, contact the Kern Co. Farm Advisor's office at (661) 868-6218.

^{*} 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.