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

UCCE/DWR Weekly Crop Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C)

04/05/19 through 04/11/19

Crops (Leafout Date)	#148 Merced			#39 Parlier			#258 Lemon Cove		
	4/5 - 4/11 Water Use	Accum'd Seasonal Water Use	4/12 - 4/18 Estimated ETc	4/5 - 4/11 Water Use	Accum'd Seasonal Water Use	4/12 - 4/18 Estimated ETc	4/5 - 4/11 Water Use	Accum'd Seasonal Water Use	4/12 - 4/18 Estimated ETc
Almonds (3/10) *	0.76	2.65	0.86	0.86	2.96	0.89	0.76	2.72	0.84
Pistachio (NA) * **	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Citrus (2/1)	0.74	4.88	0.79	0.86	5.32	0.84	0.77	4.79	0.78
Raisin Grapes (3/16) (11 ft. row spacing) ***	0.14	0.32	0.14	0.15	0.34	0.14	0.13	0.31	0.14
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.19	0.52	0.23	0.24	0.62	0.27	0.22	0.58	0.22
Walnuts (NA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stone Fruit (3/20)	0.30	0.71	0.35	0.37	0.83	0.35	0.31	0.72	0.34
Past 7 days precipitation (inches)		0.00			0.00			0.00	
Accumulated precipitation (inches) (1/1/2019)		8.80			5.66			8.49	

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

* 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.

*** Raisin Grapes and Winegrapes Irrigation should hold off until midday leaf water potential drops to -1.0 MPa, before that soil moisture reservoir is sufficient to supply the vine water demand. Update will be sent shortly once the county wide leaf water potential reaches approximate -1.0 MPa. Growers should adjust the irrigation start date based on the individual vineyard location and soil type.

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY [1]

Crops	#148 Merced				#39 Parlier				#258 Lemon Cove			
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/10)	1.2	1.0	0.9	0.8	1.3	1.1	1.0	0.9	1.2	1.0	0.9	0.8
Pistachio (NA)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citrus (2/1)	1.1	1.0	0.9	0.8	1.3	1.1	1.0	0.9	1.2	1.0	0.9	0.8
Raisin Grapes (3/16) (11 ft. row spacing)***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walnuts (NA)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stone Fruit (3/20)	0.5	0.4	0.4	0.3	0.6	0.5	0.4	0.4	0.5	0.4	0.4	0.3

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%.

PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE

Crops	#148 Merced				#39 Parlier				#258 Lemon Cove			
Almonds 115 Trees/A	283	236	213	189	307	260	236	213	283	236	213	189
Pistachio 106 Trees/A	0	0	0	0	0	0	0	0	0	0	0	0
Citrus 110 Trees/A	272	247	222	197	321	272	247	222	296	247	222	197
Raisin Grapes 566 Vines/A	0	0	0	0	0	0	0	0	0	0	0	0
Winegrapes 622 Vines/A	0	0	0	0	0	0	0	0	0	0	0	0
Walnuts 76 Trees/A	0	0	0	0	0	0	0	0	0	0	0	0
Stonefruit 172 Trees/A	79	63	63	47	95	79	63	63	79	63	63	47

For further information concerning all counties receiving this report, contact the Fresno Co. Farm Advisor's office at (559) 241-7526.

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Crops (Leafout Date)	#124 Panoche			#2 Five Points			#15 Stratford		
	4/5 - 4/11 Water Use	Accum'd Seasonal Water Use	4/12 - 4/18 Estimated ETc	4/5 - 4/11 Water Use	Accum'd Seasonal Water Use	4/12 - 4/18 Estimated ETc	4/5 - 4/11 Water Use	Accum'd Seasonal Water Use	4/12 - 4/18 Estimated ETc
Almonds (3/10) *	0.91	2.94	0.98	1.09	3.54	9.32	1.05	3.22	1.04
Pistachio (NA) * **	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Citrus (2/1)	0.91	5.30	0.92	1.08	6.33	0.98	1.02	5.55	0.98
Raisin Grapes (3/16) (11 ft. row spacing) ***	0.17	0.35	0.21	0.18	0.43	0.03	0.18	0.39	0.21
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.25	0.63	0.28	0.30	0.78	0.28	0.29	0.69	0.28
Walnuts (NA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stone Fruit (3/20)	0.37	0.81	0.41	0.45	0.97	0.42	0.44	0.93	0.42
Past 7 days precipitation (inches)		0.00			0.00			0.00	
Accumulated precipitation (inches) (1/1/2019)		3.98			5.22			3.79	

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

* 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.

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PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY [1]

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System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/10)	1.4	1.2	1.1	1.0	1.7	1.5	1.3	1.1	1.6	1.4	1.2	1.1
Pistachio (NA)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citrus (2/1)	1.4	1.2	1.1	1.0	1.7	1.4	1.3	1.1	1.6	1.4	1.2	1.1
Raisin Grapes (3/16) (11 ft. row spacing) ***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walnuts (NA)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stone Fruit (3/20)	0.6	0.5	0.4	0.4	0.7	0.6	0.5	0.5	0.7	0.6	0.5	0.5

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Almonds 115 Trees/A	331	283	260	236	401	354	307	260	378	331	283	260
Pistachio 106 Trees/A	0	0	0	0	0	0	0	0	0	0	0	0
Citrus 110 Trees/A	346	296	272	247	420	346	321	272	395	346	296	272
Raisin Grapes 566 Vines/A	0	0	0	0	0	0	0	0	0	0	0	0
Winegrapes 622 Vines/A	0	0	0	0	0	0	0	0	0	0	0	0
Walnuts 76 Trees/A	0	0	0	0	0	0	0	0	0	0	0	0
Stonefruit 172 Trees/A	95	79	63	63	111	95	79	79	111	95	79	79

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