### University of California Agriculture and Natural Resources

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## UCCE/DWR Weekly Crop Water Use Report

Making a Difference for California

#### WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or  $ET_C$ ) 05/17/19 through 05/23/19

Crops (Leafout Date)	#148 Merced			#39 Parlier			#258 Lemon Cove		
	5/17 - 5/23	Accum'd	5/24 - 5/30	5/17 - 5/23	Accum'd	5/24 - 5/30	5/17 - 5/23	Accum'd	5/24 - 5/30
	Water	Seasonal	Estimated	Water	Seasonal	Estimated	Water	Seasonal	Estimated
	Use	Water Use	ETc	Use	Water Use	ETc	Use	Water Use	ETc
Almonds (3/10) *	0.90	9.01	1.60	0.99	9.90	1.61	0.74	9.20	1.57
Pistachio (4/19) * **	0.58	2.41	1.13	0.63	2.63	1.14	0.49	2.40	1.12
Citrus (2/1)	0.70	10.41	1.13	0.76	11.34	1.14	0.57	10.45	1.12
Raisin Grapes (3/16) (11 ft. row spacing)	0.73	3.96	1.26	0.81	4.28	1.27	0.62	3.97	1.23
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.67	4.05	1.19	0.75	4.50	1.19	0.56	4.14	1.16
Walnuts (4/15)	0.68	3.11	1.18	0.75	3.44	1.19	0.56	3.13	1.18
Stone Fruit (3/20)	0.62	4.23	1.12	0.67	4.65	1.13	0.51	4.25	1.09
Past 7 days precipitation (inches)		1.21			0.85			0.77	
Accumulated precipitation (inches) (1/1/2018)		10.88			7.12			10.10	

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

<sup>\*\*</sup> 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.

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1													
Crops		#148 Merc	ed		#39 Parlier				#258 Lemon Cove				
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%	
Almonds (3/10)	1.4	1.2	1.1	0.9	1.5	1.3	1.2	1.0	1.1	1.0	0.9	0.8	
Pistachio (4/19)	0.9	0.8	0.7	0.6	0.9	0.8	0.7	0.6	0.9	0.8	0.7	0.6	
Citrus (2/1)	1.1	0.9	0.8	0.7	1.2	1.0	0.9	0.8	0.9	0.8	0.7	0.6	
Raisin Grapes (3/16) (11 ft. row spacing)	1.1	1.0	0.9	0.8	1.2	1.1	1.0	0.9	1.0	0.8	0.7	0.7	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	1.0	0.9	0.8	0.7	1.2	1.0	0.9	0.8	0.9	0.7	0.7	0.6	
Walnuts (4/15)	1.0	0.9	0.8	0.7	1.2	1.0	0.9	0.8	0.9	0.7	0.7	0.6	
Stone Fruit (3/20)	1.0	0.8	0.7	0.7	1.0	0.9	0.8	0.7	0.8	0.7	0.6	0.5	

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	•					
Almonds 115 Trees/A	331	283	260	213	354	307	283	236	260	236	213	189
Pistachio 106 Trees/A	224	199	174	149	224	199	174	149	224	199	174	149
Citrus 110 Trees/A	272	222	197	173	296	247	222	197	222	197	173	148
Raisin Grapes 566 Vines/A	53	48	43	38	58	53	48	43	48	38	34	34
Winegrapes 622 Vines/A	44	39	35	31	52	44	39	35	39	31	31	26
Walnuts 76 Trees/A	357	322	286	250	429	357	322	286	322	250	250	214
Stonefruit 172 Trees/A	158	126	111	111	158	142	126	111	126	111	95	79
For further information concerning all counties receiving this report, contact	the Fresno (	Co. Farm Ad	visor's office	at (559) 24	1-7526.							

<sup>\*</sup> 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.

Agriculture and Natural Resources

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#### WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or  $ET_C$ ) 05/17/19 through 05/23/19

Crops (Leafout Date)	#	#124 Panoche			#2 Five Points			#15 Stratford			
	5/17 - 5/23	Accum'd	5/24 - 5/30		5/17 - 5/23	Accum'd	5/24 - 5/30	5/17 - 5/23	Accum'd	5/24 - 5/30	
	Water	Seasonal	Estimated		Water	Seasonal	Estimated	Water	Seasonal	Estimated	
	Use	Water Use	ETc		Use	Water Use	ETc	Use	Water Use	ETc	
Almonds (3/10) *	0.98	10.23	1.71		1.09	10.99	1.81	0.86	10.25	1.81	
Pistachio (4/19) * **	0.65	2.78	1.25		0.71	2.77	1.34	0.57	2.56	1.34	
Citrus (2/1)	0.77	11.69	1.28		0.84	12.83	1.33	0.68	11.70	1.33	
Raisin Grapes (3/16) (11 ft. row spacing)	0.78	4.55	1.37		0.87	4.68	1.47	0.69	4.34	1.47	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.73	4.75	1.30		0.82	4.98	1.33	0.65	4.59	1.33	
Walnuts (4/15)	0.75	3.56	1.32		0.84	3.61	1.39	0.66	3.32	1.39	
Stone Fruit (3/20)	0.68	4.84	1.23		0.75	5.07	1.26	0.59	4.77	1.26	
Past 7 days precipitation (inches)		0.45				0.56			0.64		
Accumulated precipitation (inches) (1/1/2018)		4.67				6.90			6.87		

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 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.

<sup>\*\*</sup> 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.

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1													
Crops	#124 Panoche					#2 Five Poi	nts						
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%	
Almonds (3/10)	1.5	1.3	1.2	1.0	1.7	1.5	1.3	1.1	1.3	1.1	1.0	0.9	
Pistachio (4/19)	1.0	0.9	0.8	0.7	1.1	0.9	0.8	0.7	0.9	0.8	0.7	0.6	
Citrus (2/1)	1.2	1.0	0.9	0.8	1.3	1.1	1.0	0.9	1.0	0.9	0.8	0.7	
Raisin Grapes (3/16) (11 ft. row spacing)	1.2	1.0	0.9	0.8	1.3	1.2	1.0	0.9	1.1	0.9	0.8	0.7	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	1.1	1.0	0.9	0.8	1.1	1.0	0.9	0.8	1.0	0.9	0.8	0.7	
Walnuts (4/15)	1.2	1.0	0.9	0.8	1.3	1.1	1.0	0.9	1.0	0.9	0.8	0.7	
Stone Fruit (3/20)	1.0	0.9	0.8	0.7	1.2	1.0	0.9	0.8	0.9	0.8	0.7	0.6	

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PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE												
Crops	#124 Panoche					#2 Five Poi	ints					
Almonds 115 Trees/A	354	307	283	236	401	354	307	260	307	260	236	213
Pistachio 106 Trees/A	249	224	199	174	274	224	199	174	224	199	174	149
Citrus 110 Trees/A	296	247	222	197	321	272	247	222	247	222	197	173
Raisin Grapes 566 Vines/A	58	48	43	38	62	58	48	43	53	43	38	34
Winegrapes 622 Vines/A	48	44	39	35	48	44	39	35	44	39	35	31
Walnuts 76 Trees/A	429	357	322	286	464	393	357	322	357	322	286	250
Stonefruit 172 Trees/A	158	142	126	111	189	158	142	126	142	126	111	95
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