HEALTHY FOOD SYSTEMS • HEALTHY ENVIRONMENTS • HEALTHY COMMUNITIES • HEALTHY CALIFORNIANS

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

UCCE

UCCE/DWR Weekly Crop Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C)

09/16/22 through 09/22/22

Crops (Leafout Date)	#148 Merced			#39 Parlier			#258 Lemon Cove		
	9/16 - 9/22 Water Use	Accum'd Seasonal Water Use	9/23 - 9/29 Estimated ETc	9/16 - 9/22 Water Use	Accum'd Seasonal Water Use	9/23 - 9/29 Estimated ETc	9/16 - 9/22 Water Use	Accum'd Seasonal Water Use	9/23 - 9/29 Estimated ETc
Almonds (3/1) *	0.97	43.70	1.26	1.14	45.15	1.21	1.08	41.87	1.12
Pistachio (4/8) * **	0.88	38.52	1.18	1.03	40.01	1.13	0.95	36.80	1.03
Citrus (2/1)	0.63	33.05	0.84	0.73	34.16	0.80	0.68	31.87	0.76
Raisin Grapes (3/15) (11 ft. row spacing)	0.66	25.59	0.90	0.77	26.61	0.86	0.74	24.45	0.77
Winegrapes (3/15) (10 ft. spacing on California Sprawl Trellis) ***	0.75	28.19	1.02	0.88	29.26	0.98	0.81	26.87	0.89
Walnuts (4/8)	0.81	39.06	1.13	0.96	40.56	1.08	0.88	37.46	0.98
Stone Fruit (3/10)	1.04	37.14	1.41	1.21	38.53	1.36	1.13	35.37	1.26
Past 7 days precipitation (inches)		0.46			0.11			0.00	
Accumulated precipitation (inches) (1/1/2022)		2.90			2.05			2.82	

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.

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 (3/1)	1.5	1.3	1.1	1.0	1.8	1.5	1.3	1.2	1.7	1.4	1.3	1.1
Pistachio (4/8)	1.4	1.2	1.0	0.9	1.6	1.4	1.2	1.1	1.5	1.3	1.1	1.0
Citrus (2/1)	1.0	0.8	0.7	0.7	1.1	1.0	0.9	0.8	1.0	0.9	0.8	0.7
Raisin Grapes (3/15) (11 ft. row spacing)***	Assume all grape			0.7	Assume all grape			0.8	Assume all grape			0.8
Winegrapes (3/15) (10 ft. spacing on California Sprawl Trellis) ***	irrigation type is drip			0.8	irrigation type is drip			0.9	irrigation type is drip			0.9
Walnuts (4/8)	1.2	1.1	1.0	0.9	1.5	1.3	1.1	1.0	1.4	1.2	1.0	0.9
Stone Fruit (3/10)	1.6	1.4	1.2	1.1	1.9	1.6	1.4	1.3	1.7	1.5	1.3	1.2

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%.

PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE

Crops	#148 Merced				#39 Parlier				#258 Lemon Cove			
Almonds 115 Trees/A	354	307	260	236	425	354	307	283	401	331	307	260
Pistachio 106 Trees/A	349	299	249	224	399	349	299	274	374	324	274	249
Citrus 110 Trees/A	247	197	173	173	272	247	222	197	247	222	197	173
Raisin Grapes 566 Vines/A	Assume all grape			34	Assume all grape			38	Assume all grape			38
Winegrapes 622 Vines/A	irrigation type is drip			35	irrigation type is drip			39	irrigation type is drip			39
Walnuts 76 Trees/A	429	393	357	322	536	464	393	357	500	429	357	322
Stonefruit 172 Trees/A	253	221	189	174	300	253	221	205	268	237	205	189

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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09/16/22 through 09/22/22

Crops (Leafout Date)	#124 Panoche			#2 Five Points			#15 Stratford		
	9/16 - 9/22 Water Use	Accum'd Seasonal Water Use	9/23- 9/29 Estimated ETc	9/16 - 9/22 Water Use	Accum'd Seasonal Water Use	9/23- 9/29 Estimated ETc	9/16 - 9/22 Water Use	Accum'd Seasonal Water Use	9/23- 9/29 Estimated ETc
Almonds (3/1) *	1.05	48.51	1.32	1.11	50.37	1.43	1.23	51.85	1.38
Pistachio (4/8) * **	0.98	42.42	1.26	1.02	43.89	1.37	1.14	45.34	1.32
Citrus (2/1)	0.68	36.59	0.91	0.71	38.08	0.99	0.79	38.86	0.94
Raisin Grapes (3/15) (11 ft. row spacing)	0.73	28.16	0.97	0.78	29.22	1.05	0.86	30.15	1.02
Winegrapes (3/15) (10 ft. spacing on California Sprawl Trellis)	0.83	30.91	1.09	0.87	32.04	1.18	0.97	33.13	1.14
Walnuts (4/8)	0.91	43.01	1.21	0.95	44.64	1.27	1.06	46.03	1.25
Stone Fruit (3/10)	1.14	40.91	1.49	1.21	42.40	1.60	1.33	43.81	1.55
Past 7 days precipitation (inches)		0.01			0.61			0.03	
Accumulated precipitation (inches) (1/1/2022)		1.25			1.76			1.33	

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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System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/1)	1.6	1.4	1.2	1.1	1.7	1.5	1.3	1.2	1.9	1.6	1.4	1.3
Pistachio (4/8)	1.5	1.3	1.2	1.0	1.6	1.4	1.2	1.1	1.8	1.5	1.3	1.2
Citrus (2/1)	1.0	0.9	0.8	0.7	1.1	0.9	0.8	0.7	1.2	1.1	0.9	0.8
Raisin Grapes (3/15) (11 ft. row spacing)	Assume all grape			0.8	Assume all grape			0.8	Assume all grape			0.9
Winegrapes (3/15) (10 ft. spacing on California Sprawl Trellis)	irrigation type is drip			0.9	irrigation type is drip			0.9	irrigation type is drip			1.0
Walnuts (4/8)	1.4	1.2	1.1	1.0	1.5	1.3	1.1	1.0	1.6	1.4	1.2	1.1
Stone Fruit (3/10)	1.8	1.5	1.3	1.2	1.9	1.6	1.4	1.3	2.0	1.8	1.6	1.4

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PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE

Crops	#124 Panoche				#2 Five Points				#15 Stratford			
Almonds 115 Trees/A	378	331	283	260	401	354	307	283	449	378	331	307
Pistachio 106 Trees/A	374	324	299	249	399	349	299	274	448	374	324	299
Citrus 110 Trees/A	247	222	197	173	272	222	197	173	296	272	222	197
Raisin Grapes 566 Vines/A	Assume all grape			38	Assume all grape			38	Assume all grape			43
Winegrapes 622 Vines/A	irrigation type is drip			39	irrigation type is drip			39	irrigation type is drip			44
Walnuts 76 Trees/A	500	429	393	357	536	464	393	357	572	500	429	393
Stonefruit 172 Trees/A	284	237	205	189	300	253	221	205	316	284	253	221

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