



**WEEKLY SOIL MOISTURE LOSS IN INCHES**

(Estimated Crop Evapotranspiration or ET<sub>c</sub>)

09/22/23 through 09/28/23

Crops (Leafout Date)	#148 Merced			#39 Parlier			#258 Lemon Cove		
	9/22 - 9/28 Water Use	Accum'd Seasonal Water Use	9/29 - 10/5 Estimated ETc	9/22 - 9/28 Water Use	Accum'd Seasonal Water Use	9/29 - 10/5 Estimated ETc	9/22 - 9/28 Water Use	Accum'd Seasonal Water Use	9/29 - 10/5 Estimated ETc
Almonds (3/13) *	1.13	40.31	1.01	1.14	42.35	0.98	1.09	41.01	0.97
Pistachio (4/20) * **	1.07	34.53	0.95	1.07	36.20	0.92	1.02	35.32	0.91
Citrus (2/1)	0.76	30.00	0.70	0.76	31.70	0.70	0.73	30.61	0.70
Raisin Grapes (3/22) (11 ft. row spacing)	0.79	22.62	0.76	0.79	23.68	0.73	0.78	23.15	0.72
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis) ***	0.91	24.97	0.82	0.91	26.17	0.79	0.87	25.51	0.78
Walnuts (4/20)	1.12	32.98	1.01	1.12	34.59	0.98	1.08	33.77	0.97
Stone Fruit (3/19)	1.28	36.07	0.94	1.28	37.75	0.94	1.23	36.79	0.92
Past 7 days precipitation (inches)	0.00			0.00			0.00		
Accumulated precipitation (inches) (1/1/2023)	19.11			13.13			16.68		

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 <sup>1</sup>**

Crops	#148 Merced				#39 Parlier				#258 Lemon Cove			
	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/13)	1.7	1.5	1.3	1.2	1.8	1.5	1.3	1.2	1.7	1.5	1.3	1.1
Pistachio (4/20)	1.6	1.4	1.3	1.1	1.6	1.4	1.3	1.1	1.6	1.4	1.2	1.1
Citrus (2/1)	1.2	1.0	0.9	0.8	1.2	1.0	0.9	0.8	1.1	1.0	0.9	0.8
Raisin Grapes (3/22) (11 ft. row spacing)***	Assume all grape			0.8	Assume all grape			0.8	Assume all grape			0.8
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis) ***	irrigation type is drip			1.0	irrigation type is drip			1.0	irrigation type is drip			0.9
Walnuts (4/20)	1.7	1.5	1.3	1.2	1.7	1.5	1.3	1.2	1.7	1.4	1.3	1.1
Stone Fruit (3/19)	2.0	1.7	1.5	1.3	2.0	1.7	1.5	1.3	1.9	1.6	1.4	1.3

<sup>1</sup> 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			
	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds 115 Trees/A	401	354	307	283	425	354	307	283	401	354	307	260
Pistachio 106 Trees/A	399	349	324	274	399	349	324	274	399	349	299	274
Citrus 110 Trees/A	296	247	222	197	296	247	222	197	272	247	222	197
Raisin Grapes 566 Vines/A	Assume all grape			38	Assume all grape			38	Assume all grape			38
Winegrapes 622 Vines/A	irrigation type is drip			44	irrigation type is drip			44	irrigation type is drip			39
Walnuts 76 Trees/A	607	536	464	429	607	536	464	429	607	500	464	393
Stonefruit 172 Trees/A	316	268	237	205	316	268	237	205	300	253	221	205

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



**WEEKLY SOIL MOISTURE LOSS IN INCHES**

(Estimated Crop Evapotranspiration or ET<sub>c</sub>)

09/22/23 through 09/28/23

Crops (Leafout Date)	#124 Panoche			#2 Five Points			#15 Stratford		
	9/22- 9/28 Water Use	Accum'd Seasonal Water Use	9/29 - 10/5 Estimated ETc	9/22- 9/28 Water Use	Accum'd Seasonal Water Use	9/29 - 10/5 Estimated ETc	9/22- 9/28 Water Use	Accum'd Seasonal Water Use	9/29 - 10/5 Estimated ETc
Almonds (3/13) *	1.21	43.49	1.08	1.18	42.50	1.15	1.27	46.24	1.11
Pistachio (4/20) * **	1.17	37.66	1.04	1.14	36.53	1.14	1.23	39.61	1.10
Citrus (2/1)	0.82	32.20	0.78	0.82	31.75	0.84	0.88	34.49	0.82
Raisin Grapes (3/22 ) (11 ft. row spacing)	0.88	24.29	0.78	0.85	23.64	0.86	0.93	25.54	0.82
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis)	0.99	26.79	0.89	0.97	26.02	0.98	1.05	28.19	0.94
Walnuts (4/20)	1.17	35.93	1.09	1.17	34.83	1.14	1.23	37.81	1.11
Stone Fruit (3/19)	1.38	39.38	0.96	1.35	38.31	1.06	1.44	41.63	1.02
Past 7 days precipitation (inches)	0.00			0.00			0.00		
Accumulated precipitation (inches) (1/1/2023)	6.36			8.39			8.15		

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 <sup>1</sup>**

Crops	#124 Panoche				#2 Five Points				#15 Stratford			
	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/13)	1.9	1.6	1.4	1.3	1.8	1.6	1.4	1.2	2.0	1.7	1.5	1.3
Pistachio (4/20)	1.8	1.6	1.4	1.2	1.8	1.5	1.3	1.2	1.9	1.6	1.4	1.3
Citrus (2/1)	1.3	1.1	1.0	0.9	1.3	1.1	1.0	0.9	1.4	1.2	1.0	0.9
Raisin Grapes (3/22 ) (11 ft. row spacing)	Assume all grape			0.9	Assume all grape			0.9	Assume all grape			1.0
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis)	irrigation type is drip			1.0	irrigation type is drip			1.0	irrigation type is drip			1.1
Walnuts (4/20)	1.8	1.6	1.4	1.2	1.8	1.6	1.4	1.2	1.9	1.6	1.4	1.3
Stone Fruit (3/19)	2.1	1.8	1.6	1.5	2.1	1.8	1.6	1.4	2.2	1.9	1.7	1.5

<sup>1</sup> 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	#124 Panoche				#2 Five Points				#15 Stratford			
	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds 115 Trees/A	449	378	331	307	425	378	331	283	472	401	354	307
Pistachio 106 Trees/A	448	399	349	299	448	374	324	299	473	399	349	324
Citrus 110 Trees/A	321	272	247	222	321	272	247	222	346	296	247	222
Raisin Grapes 566 Vines/A	Assume all grape			43	Assume all grape			43	Assume all grape			48
Winegrapes 622 Vines/A	irrigation type is drip			44	irrigation type is drip			44	irrigation type is drip			48
Walnuts 76 Trees/A	643	572	500	429	643	572	500	429	679	572	500	464
Stonefruit 172 Trees/A	332	284	253	237	332	284	253	221	347	300	268	237

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