

**WEEKLY SOIL MOISTURE LOSS IN INCHES**

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

10/11/19 through 10/17/19

Crops (Leafout Date)	#148 Merced			#39 Parlier			#258 Lemon Cove		
	10/11- 10/17 Water Use	Accum'd Seasonal Water Use	10/18- 10/24 Estimated ETc	10/11- 10/17 Water Use	Accum'd Seasonal Water Use	10/18- 10/24 Estimated ETc	10/11- 10/17 Water Use	Accum'd Seasonal Water Use	10/18- 10/24 Estimated ETc
Almonds (3/10) *	0.83	42.81	0.66	0.89	46.07	0.63	0.90	43.23	0.63
Pistachio (4/19) * **	0.76	36.39	0.66	0.83	39.14	0.62	0.85	36.76	0.61
Citrus (2/1)	0.60	32.15	0.52	0.67	34.73	0.48	0.69	32.42	0.47
Raisin Grapes (3/16 ) (11 ft. row spacing)	0.74	31.06	0.59	0.80	33.27	0.57	0.81	31.29	0.56
Winegrapes (3/16 ) (10 ft. spacing on California Sprawl Trellis)	0.81	34.20	0.73	0.88	36.92	0.69	0.90	34.59	0.68
Walnuts (4/15)	0.80	35.30	0.66	0.87	38.07	0.62	0.89	35.59	0.61
Stone Fruit (3/20 )	0.94	35.85	0.65	1.02	38.68	0.61	1.05	36.11	0.60
Past 7 days precipitation (inches)	0.00			0.00			0.00		
Accumulated precipitation (inches) (1/1/2018)	11.15			7.89			10.81		

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.

\*\*\* CIMIS station #188 Madera II has been taken out of service due to a conversion of the pasture to permanent crops. For the remainder of 2018 irrigation season Historical Average ET<sub>o</sub> will be used for the weekly report.

**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 (3/10)	1.3	1.1	1.0	0.9	1.4	1.2	1.0	0.9	1.4	1.2	1.1	0.9
Pistachio (4/19)	1.2	1.0	0.9	0.8	1.3	1.1	1.0	0.9	1.3	1.1	1.0	0.9
Citrus (2/1)	0.9	0.8	0.7	0.6	1.0	0.9	0.8	0.7	1.1	0.9	0.8	0.7
Raisin Grapes (3/16 ) (11 ft. row spacing)	1.1	1.0	0.9	0.8	1.2	1.1	0.9	0.8	1.2	1.1	1.0	0.9
Winegrapes (3/16 ) (10 ft. spacing on California Sprawl Trellis)	1.2	1.1	1.0	0.9	1.4	1.2	1.0	0.9	1.4	1.2	1.1	0.9
Walnuts (4/15)	1.2	1.1	0.9	0.8	1.3	1.2	1.0	0.9	1.4	1.2	1.0	0.9
Stone Fruit (3/20 )	1.4	1.3	1.1	1.0	1.6	1.4	1.2	1.1	1.6	1.4	1.2	1.1

<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			
	307	260	236	213	331	283	236	213	331	283	260	213
Almonds 115 Trees/A	307	260	236	213	331	283	236	213	331	283	260	213
Pistachio 106 Trees/A	299	249	224	199	324	274	249	224	324	274	249	224
Citrus 110 Trees/A	222	197	173	148	247	222	197	173	272	222	197	173
Raisin Grapes 566 Vines/A	53	48	43	38	58	53	43	38	58	53	48	43
Winegrapes 622 Vines/A	52	48	44	39	61	52	44	39	61	52	48	39
Walnuts 76 Trees/A	429	393	322	286	464	429	357	322	500	429	357	322
Stonefruit 172 Trees/A	221	205	174	158	253	221	189	174	253	221	189	174

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>)

10/11/19 through 10/17/19

Crops (Leafout Date)	#124 Panoche				#2 Five Points				#15 Stratford			
	10/11- 10/17 Water Use	Accum'd Seasonal Water Use	10/18- 10/24 Estimated ETc		10/11- 10/17 Water Use	Accum'd Seasonal Water Use	10/18- 10/24 Estimated ETc		10/11- 10/17 Water Use	Accum'd Seasonal Water Use	10/18- 10/24 Estimated ETc	
Almonds (3/10) *	0.89	48.88	0.74		1.04	50.41	0.80		1.01	47.44	0.78	
Pistachio (4/19) * **	0.82	41.65	0.72		0.98	42.53	0.75		0.95	40.05	0.72	
Citrus (2/1)	0.65	36.57	0.56		0.76	38.24	0.61		0.75	35.70	0.58	
Raisin Grapes (3/16 ) (11 ft. row spacing)	0.79	35.58	0.67		0.91	36.23	0.75		0.89	34.08	0.71	
Winegrapes (3/16 ) (10 ft. spacing on California Sprawl Trellis)	0.87	39.28	0.77		1.02	40.32	0.82		0.99	37.84	0.79	
Walnuts (4/15)	0.86	40.40	0.74		1.02	41.40	0.78		0.99	38.87	0.76	
Stone Fruit (3/20 )	1.01	41.03	0.73		1.22	42.36	0.81		1.19	39.82	0.77	
<b>Past 7 days precipitation (inches)</b>	0.00				0.33				0.00			
<b>Accumulated precipitation (inches) (1/1/2019)</b>	4.82				7.92				7.08			

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 >>												
Almonds (3/10)	1.4	1.2	1.0	0.9	1.6	1.4	1.2	1.1	1.6	1.3	1.2	1.1
Pistachio (4/19)	1.3	1.1	1.0	0.9	1.5	1.3	1.2	1.0	1.5	1.3	1.1	1.0
Citrus (2/1)	1.0	0.9	0.8	0.7	1.2	1.0	0.9	0.8	1.2	1.0	0.9	0.8
Raisin Grapes (3/16 ) (11 ft. row spacing)	1.2	1.1	0.9	0.8	1.4	1.2	1.1	1.0	1.4	1.2	1.0	0.9
Winegrapes (3/16 ) (10 ft. spacing on California Sprawl Trellis)	1.3	1.2	1.0	0.9	1.6	1.4	1.2	1.1	1.5	1.3	1.2	1.0
Walnuts (4/15)	1.3	1.1	1.0	0.9	1.6	1.4	1.2	1.1	1.5	1.3	1.2	1.0
Stone Fruit (3/20 )	1.6	1.3	1.2	1.1	1.9	1.6	1.4	1.3	1.8	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	#124 Panoche				#2 Five Points				#15 Stratford			
	Almonds 115 Trees/A	331	283	236	213	378	331	283	260	378	307	283
Pistachio 106 Trees/A	324	274	249	224	374	324	299	249	374	324	274	249
Citrus 110 Trees/A	247	222	197	173	296	247	222	197	296	247	222	197
Raisin Grapes 566 Vines/A	58	53	43	38	67	58	53	48	67	58	48	43
Winegrapes 622 Vines/A	57	52	44	39	70	61	52	48	65	57	52	44
Walnuts 76 Trees/A	464	393	357	322	572	500	429	393	536	464	429	357
Stonefruit 172 Trees/A	253	205	189	174	300	253	221	205	284	253	221	205

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