# 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<sub>C</sub>) 07/07/23 through 07/13/23

Crops (Leafout Date)		#148 Merced			#39 Parlier				#258 Lemon Cove		
	7/7- 7/13	Accum'd	7/14- 7/20		7/7- 7/13	Accum'd	7/14- 7/20		7/7- 7/13	Accum'd	7/14- 7/20
	Water	Seasonal	Estimated		Water	Seasonal	Estimated		Water	Seasonal	Estimated
	Use	Water Use	ETc		Use	Water Use	ETc		Use	Water Use	ETc
Almonds (3/13) *	1.96	22.68	2.28		2.06	24.06	2.24		2.10	23.40	2.24
Pistachio (4/20) * **	2.03	16.68	2.35		2.13	17.63	2.31		2.17	17.39	2.31
Citrus (2/1)	1.18	18.85	1.38		1.27	20.19	1.40		1.29	19.50	1.40
Raisin Grapes (3/22) (11 ft. row spacing)	1.31	10.85	1.53		1.38	11.44	1.49		1.40	11.33	1.49
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis)	1.48	11.58	1.71		1.55	12.26	1.73		1.58	12.10	1.73
Walnuts (4/20)	1.82	14.73	2.18		1.92	15.63	2.14		1.96	15.47	2.14
Stone Fruit (3/19)	1.89	17.88	2.32		2.00	18.84	2.29		2.04	18.54	2.29
Past 7 days precipitation (inches)		0.00		_		0.00		_	-	0.00	_
Accumulated precipitation (inches) (1/1/2023)		16.33				12.53				15.76	

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

Stone Fruit (3/19)

2.9

2.5

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 (3/13)	3.0	2.6	2.3	2.1	3.2	2.7	2.4	2.2	3.2	2.8	2.5	2.2	
Pistachio (4/20)	3.1	2.7	2.4	2.1	3.3	2.8	2.5	2.2	3.3	2.9	2.6	2.3	
Citrus (2/1)	1.8	1.6	1.4	1.2	2.0	1.7	1.5	1.3	2.0	1.7	1.5	1.4	
Raisin Grapes (3/22) (11 ft. row spacing)	As	sume all gr	ape	1.4	Assume all grape			1.4	Assume all grape			1.5	
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis)	irrigation type is drip			1.6	irrigation type is drip			1.6	irrigation type is drip			1.7	
Walnuts (4/20)	2.8	2.4	2.1	1.9	3.0	2.6	2.3	2.0	3.0	2.6	2.3	2.1	

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%.

2.2

### PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE

2.0

3.1

2.7

2.4

2.1

3.1

2.7

2.4

2.1

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Crops		#148 Merc	ed			#39 Parlier	•		#258 Lemon Cove				
Almonds 115 Trees/A	708	614	543	496	756	638	567	519	756	661	590	519	
Pistachio 106 Trees/A	772	673	598	523	822	698	623	548	822	722	648	573	
Citrus 110 Trees/A	444	395	346	296	494	420	370	321	494	420	370	346	
Raisin Grapes 566 Vines/A	As	Assume all grape			Assume all grape 67			Assume all grape			72		
Winegrapes 622 Vines/A	irrig	ation type is	s drip	70	irrigation type is drip 70			70	irrigation type is drip			74	
Walnuts 76 Trees/A	1000	857	750	679	1072	929	822	715	1072	929	822	750	
Stonefruit 172 Trees/A	458	395	347	316	489	426	379	332	489	426	379	332	
For further information concerning all counties receiving this report, contact the Fresno Co. Farm Advisor's office at (559) 241-7526.													

<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.

<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.

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## WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET<sub>C</sub>) 07/07/23 through 07/13/23

Crops (Leafout Date)	#124 Panoche			#2 Five Points			#15 Stratford			
	7/7- 7/13	Accum'd	7/14- 7/20	7/7- 7/13	Accum'd	7/14- 7/20	7/7- 7/13	Accum'd	7/14- 7/20	
	Water	Seasonal	Estimated	Water	Seasonal	Estimated	Water	Seasonal	Estimated	
	Use	Water Use	ETc	Use	Water Use	ETc	Use	Water Use	ETc	
Almonds (3/13) *	2.21	24.33	2.45	2.10	23.90	2.45	2.28	26.27	2.59	
Pistachio (4/20) * **	2.27	18.10	2.45	2.17	17.58	2.45	2.33	19.25	2.59	
Citrus (2/1)	1.35	20.07	1.47	1.30	19.97	1.47	1.38	21.80	1.54	
Raisin Grapes (3/22) (11 ft. row spacing)	1.47	11.38	1.61	1.40	11.14	1.61	1.51	12.10	1.73	
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis)	1.63	12.12	0.00	1.55	11.78	0.00	1.68	12.89	0.00	
Walnuts (4/20)	2.06	16.00	2.28	1.96	15.49	2.28	2.12	17.10	2.43	
Stone Fruit (3/19)	2.16	19.45	2.44	2.05	19.00	2.44	2.23	20.90	2.58	
Past 7 days precipitation (inches)		0.00			0.00			0.00		
Accumulated precipitation (inches) (1/1/2023)		6.18			7.65			7.90		

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	#124 Panoche					#2 Five Po	ints						
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%	
Almonds (3/13)	3.4	2.9	2.6	2.3	3.2	2.8	2.5	2.2	3.5	3.0	2.7	2.4	
Pistachio (4/20)	3.5	3.0	2.7	2.4	3.3	2.9	2.6	2.3	3.6	3.1	2.7	2.5	
Citrus (2/1)	2.1	1.8	1.6	1.4	2.0	1.7	1.5	1.4	2.1	1.8	1.6	1.5	
Raisin Grapes (3/22) (11 ft. row spacing)	As	sume all gr	ape	1.5	Assume all grape 1.5			1.5	As	1.6			
Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis)	irriga	ation type is	s drip	1.7	irriga	irrigation type is drip		1.6	irrigation type is drip		s drip	1.8	
Walnuts (4/20)	3.2	2.7	2.4	2.2	3.0	2.6	2.3	2.1	3.3	2.8	2.5	2.2	
Stone Fruit (3/19)	3.3	2.9	2.5	2.3	3.2	2.7	2.4	2.2	3.4	3.0	2.6	2.3	

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	#124 Panoche					<b>#2 Five Poi</b>	ints							
Almonds 115 Trees/A	803	685	614	543	756	661	590	519	826	708	638	567		
Pistachio 106 Trees/A	872	747	673	598	822	722	648	573	897	772	673	623		
Citrus 110 Trees/A	518	444	395	346	494	420	370	346	518	444	395	370		
Raisin Grapes 566 Vines/A	Ass	sume all gr	ape	72	Assume all grape			72	Assume all grape			77		
Winegrapes 622 Vines/A	irriga	ation type is	s drip	74	irrigation type is drip			70	irrigation type is drip		drip	79		
Walnuts 76 Trees/A	1143	965	857	786	1072	929	822	750	1179	1000	893	786		
Stonefruit 172 Trees/A	521	458	395	363	505	426	379	347	537	474	410	363		
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<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.