UCCE/DWR Weekly Crop Water Use Report





Making a Difference for California

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 04/24/20 through 04/30/20

Crops (Leafout Date)	#148 Merced			#39 Parlier			#258 Lemon Cove			
	4/24 - 4/30	Accum'd	5/1 - 5/7	4/24 - 4/30	Accum'd	5/1 - 5/7	4/24 - 4/30	Accum'd	5/1 - 5/7	
	Water	Seasonal	Estimated	Water	Seasonal	Estimated	Water	Seasonal	Estimated	
	Use	Water Use	ETc	Use	Water Use	ЕТс	Use	Water Use	ETc	_
Almonds (3/5) *	1.37	5.84	1.20	1.39	5.70	1.20	1.28	4.94	1.20	
Pistachio (4/13) * **	0.47	0.77	0.52	0.47	0.76	0.52	0.43	0.65	0.52	
Citrus (2/1)	1.21	8.61	1.03	1.18	8.16	1.05	1.08	7.45	1.01	
Raisin Grapes (3/16) (11 ft. row spacing)***	0.39	0.81	0.42	0.40	0.83	0.42	0.37	0.70	0.42	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.48	1.30	0.49	0.48	1.23	0.49	0.45	1.10	0.49	
Walnuts (4/8)	0.91	1.51	0.83	0.89	1.45	0.83	0.84	1.27	0.83	
Stone Fruit (3/10)	0.88	2.76	0.77	0.86	2.67	0.77	0.81	2.30	0.77	
Past 7 days precipitation (inches)		0.00			0.00			0.00		
Accumulated precipitation (inches) (1/1/2020)		4.65			4.48			5.24		

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

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 (3/5)	2.1	1.8	1.6	1.4	2.1	1.9	1.6	1.5	2.0	1.7	1.5	1.3	
Pistachio (4/13)	0.7	0.6	0.6	0.5	0.7	0.6	0.6	0.5	0.7	0.6	0.5	0.5	
Citrus (2/1)	1.9	1.6	1.4	1.3	1.8	1.6	1.4	1.2	1.7	1.4	1.3	1.1	
Raisin Grapes (3/16) (11 ft. row spacing)***	0.6	0.5	0.5	0.4	0.6	0.5	0.5	0.4	0.6	0.5	0.4	0.4	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.7	0.6	0.6	0.5	0.7	0.6	0.6	0.5	0.7	0.6	0.5	0.5	
Walnuts (4/8)	1.4	1.2	1.1	1.0	1.4	1.2	1.0	0.9	1.3	1.1	1.0	0.9	
Stone Fruit (3/10)	1.4	1.2	1.0	0.9	1.3	1.1	1.0	0.9	1.2	1.1	1.0	0.9	

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	496	425	378	331	496	449	378	354	472	401	354	307	
Pistachio 106 Trees/A	174	149	149	125	174	149	149	125	174	149	125	125	
Citrus 110 Trees/A	469	395	346	321	444	395	346	296	420	346	321	272	
Raisin Grapes 566 Vines/A	29	24	24	19	29	24	24	19	29	24	19	19	
Winegrapes 622 Vines/A	31	26	26	22	31	26	26	22	31	26	22	22	
Walnuts 76 Trees/A	500	429	393	357	500	429	357	322	464	393	357	322	
Stonefruit 172 Trees/A	221	189	158	142	205	174	158	142	189	174	158	142	
For further information concerning all counties receiving this report, contact the Fresno Co. Farm Advisor's office at (559) 241-7526.													

^{*} 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.

^{***} Raisin Grapes and Winegrapes Irrigation should hold off until midday leaf water potential drops to -1.0 MPa, before that soil moisture reservoir is sufficient to supply the vine water demand. Update will be sent shortly once the county wide leaf water potential reaches approximate -1.0 MPa. Growers should adjust the irrigation start date based on the individual vineyard location and soil type.

University of California

Agriculture and Natural Resources





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WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 04/24/20 through 04/30/20

Crops (Leafout Date)	#124 Panoche			#2 Five Points			#15 Stratford			
	4/24 - 4/30	Accum'd	5/1 - 5/7	4/24 - 4/30	Accum'd	5/1 - 5/7	4/24 - 4/30	Accum'd	5/1 - 5/7	
	Water	Seasonal	Estimated	Water	Seasonal	Estimated	Water	Seasonal	Estimated	
	Use	Water Use	ETc	Use	Water Use	ЕТс	Use	Water Use	ETc	
Almonds (3/5) *	1.26	5.89	1.45	1.41	6.29	1.48	1.40	6.28	1.46	
Pistachio (4/13) * **	0.41	0.74	0.64	0.47	0.80	0.66	0.47	0.79	0.64	
Citrus (2/1)	1.09	8.66	1.23	1.22	9.25	1.26	1.21	9.08	1.24	
Raisin Grapes (3/16) (11 ft. row spacing)	0.30	0.74	0.42	0.36	0.82	0.42	0.36	0.83	0.42	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.41	1.29	0.49	0.45	1.33	0.49	0.44	1.28	0.49	
Walnuts (4/8)	0.81	1.49	0.99	0.92	1.61	0.99	0.91	1.59	0.99	
Stone Fruit (3/10)	0.77	2.79	0.91	0.88	2.95	0.91	0.87	2.96	0.91	
Past 7 days precipitation (inches)		0.00			0.00			0.00		
Accumulated precipitation (inches) (1/1/2018)		2.39			4.01			3.13		

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

^{**} 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 Points				#15 Stratford			
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%	
Almonds (3/5)	1.9	1.7	1.5	1.3	2.2	1.9	1.7	1.5	2.2	1.9	1.6	1.5	
Pistachio (4/13)	0.6	0.5	0.5	0.4	0.7	0.6	0.6	0.5	0.7	0.6	0.6	0.5	
Citrus (2/1)	1.7	1.5	1.3	1.1	1.9	1.6	1.4	1.3	1.9	1.6	1.4	1.3	
Raisin Grapes (3/16) (11 ft. row spacing)	0.5	0.4	0.4	0.3	0.6	0.5	0.4	0.4	0.6	0.5	0.4	0.4	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.6	0.5	0.5	0.4	0.6	0.5	0.5	0.4	0.6	0.5	0.5	0.4	
Walnuts (4/8)	1.2	1.1	1.0	0.9	1.4	1.2	1.1	1.0	1.4	1.2	1.1	1.0	
Stone Fruit (3/10)	1.2	1.0	0.9	0.8	1.4	1.2	1.0	0.9	1.3	1.2	1.0	0.9	

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 Poi	nts						
Almonds 115 Trees/A	449	401	354	307	519	449	401	354	519	449	378	354	
Pistachio 106 Trees/A	149	125	125	100	174	149	149	125	174	149	149	125	
Citrus 110 Trees/A	420	370	321	272	469	395	346	321	469	395	346	321	
Raisin Grapes 566 Vines/A	24	19	19	14	29	24	19	19	29	24	19	19	
Winegrapes 622 Vines/A	26	22	22	17	26	22	22	17	26	22	22	17	
Walnuts 76 Trees/A	429	393	357	322	500	429	393	357	500	429	393	357	
Stonefruit 172 Trees/A	189	158	142	126	221	189	158	142	205	189	158	142	
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