University of California

Agriculture and Natural Resources



UCCE/DWR Weekly Crop Water Use Report

Making a Difference for California

(Estimated Crop Evapotranspiration or $\ensuremath{\text{ET}}_{\ensuremath{\text{C}}})$

05/15/20 through 05/21/20

Crops (Leafout Date)	#148 Merced				#39 Parlier		#258 Lemon Cove				
	5/15 - 5/21	Accum'd	5/22 - 5/28	5/15 - 5/21	Accum'd	5/22 - 5/28		5/15 - 5/21	Accum'd	5/22 - 5/28	1
	Water	Seasonal	Estimated	Water	Seasonal	Estimated		Water	Seasonal	Estimated	
	Use	Water Use	ETc	Use	Water Use	ETc		Use	Water Use	ETc	1
Almonds (3/5) *	1.37	10.18	1.57	1.47	10.18	1.59		1.41	9.32	1.56	
Pistachio (4/13) * **	0.86	3.11	1.11	0.91	3.18	1.13		0.85	2.99	1.10	
Citrus (2/1)	1.05	12.11	1.15	1.12	11.76	1.17		1.08	10.99	1.14	
Raisin Grapes (3/16) (11 ft. row spacing)	0.97	3.34	1.12	1.02	3.46	1.12		0.98	3.26	1.12	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.89	3.71	1.01	0.94	3.73	1.03		0.90	3.53	1.00	
Walnuts (4/8)	1.04	4.71	1.29	1.08	4.75	1.31		1.01	4.47	1.28	
Stone Fruit (3/10)	1.00	5.77	1.20	1.07	5.78	1.22		1.01	5.33	1.19	
Past 7 days precipitation (inches)		0.40			0.32				0.37		
Accumulated precipitation (inches) (1/1/2020)		5.05			4.80				5.61		

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 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	2.3	2.0	1.7	1.5	2.2	1.9	1.7	1.5	
Pistachio (4/13)	1.3	1.1	1.0	0.9	1.4	1.2	1.1	1.0	1.3	1.1	1.0	0.9	
Citrus (2/1)	1.6	1.4	1.2	1.1	1.7	1.5	1.3	1.2	1.7	1.4	1.3	1.1	
Raisin Grapes (3/16) (11 ft. row spacing)***	1.5	1.3	1.1	1.0	1.6	1.4	1.2	1.1	1.5	1.3	1.2	1.0	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	1.4	1.2	1.0	0.9	1.4	1.3	1.1	1.0	1.4	1.2	1.1	0.9	
Walnuts (4/8)	1.6	1.4	1.2	1.1	1.7	1.4	1.3	1.1	1.6	1.3	1.2	1.1	
Stone Fruit (3/10)	1.5	1.3	1.2	1.1	1.6	1.4	1.3	1.1	1.6	1.3	1.2	1.1	

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%.

	PAST V	VEEKLY A	PPLIED W	ATER IN G	GALLON PI	ER TREE C	OR VINE						
Crops		#148 Merce	ed			#39 Parlier	•		#258 Lemon Cove				
Almonds 115 Trees/A	496	425	378	331	543	472	401	354	519	449	401	354	
Pistachio 106 Trees/A	324	274	249	224	349	299	274	249	324	274	249	224	
Citrus 110 Trees/A	395	346	296	272	420	370	321	296	420	346	321	272	
Raisin Grapes 566 Vines/A	72	62	53	48	77	67	58	53	72	62	58	48	
Winegrapes 622 Vines/A	61	52	44	39	61	57	48	44	61	52	48	39	
Walnuts 76 Trees/A	572	500	429	393	607	500	464	393	572	464	429	393	
Stonefruit 172 Trees/A	237	205	189	174	253	221	205	174	253	205	189	174	
For further information concerning all counties receiving this report, contact	the Fresno 0	Co. Farm Ad	visor's office	at (559) 24	1-7526.								

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		mated Crop	IOISTURE Evapotrans 20 through 05	piration or								
Crops (Leafout Date) #124 Panoche #2 Five Points #												
• • •	5/15 - 5/21	Accum'd	5/22 - 5/28		5/15 - 5/21	Accum'd	5/22 - 5/28		5/15 - 5/21	Accum'd	5/22 - 5/28	
	Water	Seasonal	Estimated		Water	Seasonal	Estimated		Water	Seasonal	Estimated	
	Use	Water Use	ETc		Use	Water Use	ETc		Use	Water Use	ETc	
Almonds (3/5) *	1.41	10.49	1.71		1.63	11.42	1.81		1.61	11.27	1.81	
Pistachio (4/13) * **	0.87	3.21	1.23		1.02	3.55	1.31		1.00	3.49	1.31	
Citrus (2/1)	1.08	12.34	1.26		1.25	13.32	1.33		1.24	13.06	1.33	
Raisin Grapes (3/16) (11 ft. row spacing)	0.90	3.12	1.13		1.05	3.44	1.23		1.04	3.45	1.23	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.83	3.58	1.06		0.97	3.90	1.12		0.96	3.78	1.12	
Walnuts (4/8)	1.04	4.89	1.47		1.20	5.38	1.51		1.18	5.25	1.51	
Stone Fruit (3/10)	1.03	5.98	1.32		1.18	6.46	1.42		1.18	6.41	1.42	
Past 7 days precipitation (inches)		0.29				0.04				0.00		
Accumulated precipitation (inches) (1/1/2020)		2.68				4.05				3.13		

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		#124 Panoo	che			#2 Five Poi	nts						
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%	
Almonds (3/5)	2.2	1.9	1.7	1.5	2.5	2.2	1.9	1.7	2.5	2.1	1.9	1.7	
Pistachio (4/13)	1.3	1.2	1.0	0.9	1.6	1.4	1.2	1.1	1.5	1.3	1.2	1.1	
Citrus (2/1)	1.7	1.4	1.3	1.1	1.9	1.7	1.5	1.3	1.9	1.7	1.5	1.3	
Raisin Grapes (3/16) (11 ft. row spacing)	1.4	1.2	1.1	0.9	1.6	1.4	1.2	1.1	1.6	1.4	1.2	1.1	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	1.3	1.1	1.0	0.9	1.3	1.1	1.0	0.9	1.5	1.3	1.1	1.0	
Walnuts (4/8)	1.6	1.4	1.2	1.1	1.8	1.6	1.4	1.3	1.8	1.6	1.4	1.2	
Stone Fruit (3/10)	1.6	1.4	1.2	1.1	1.8	1.6	1.4	1.2	1.8	1.6	1.4	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		#124 Pano	che			#2 Five Poi	ints					
Almonds 115 Trees/A	519	449	401	354	590	519	449	401	590	496	449	401
Pistachio 106 Trees/A	324	299	249	224	399	349	299	274	374	324	299	274
Citrus 110 Trees/A	420	346	321	272	469	420	370	321	469	420	370	321
Raisin Grapes 566 Vines/A	67	58	53	43	77	67	58	53	77	67	58	53
Winegrapes 622 Vines/A	57	48	44	39	57	48	44	39	65	57	48	44
Walnuts 76 Trees/A	572	500	429	393	643	572	500	464	643	572	500	429
Stonefruit 172 Trees/A	253	221	189	174	284	253	221	189	284	253	221	189
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