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University of California Agriculture and Natural Resources



UCCE/DWR Weekly Crop Water Use Report

Making a Difference for California

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 03/23/18 through 03/29/18

Crops (Leafout Date)	#188 Madera II			#39 Parlier			#86 Lindcove			
	3/23 - 3/29	Accum'd	3/30 - 4/1	3/23 - 3/29	Accum'd	3/30 - 4/1		3/23 - 3/29	Accum'd	3/30 - 4/1
	Water	Seasonal	Estimated	Water	Seasonal	Estimated		Water	Seasonal	Estimated
	Use	Water Use	ETc	Use	Water Use	ETc		Use	Water Use	ETc
Almonds (3/16) *	0.62	0.83	0.69	0.62	0.81	0.70		0.56	0.76	0.61
Pistachio (N/A) * **	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Citrus (2/1)	0.71	3.29	0.76	0.71	3.27	0.77		0.64	3.27	0.68
Raisin Grapes (3/16) (11 ft. row spacing) ***	0.07	0.08	0.07	0.07	0.08	0.07		0.06	0.07	0.07
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.12	0.17	0.14	0.12	0.15	0.14		0.10	0.13	0.14
Walnuts (N/A)	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Stone Fruit (3/16)	0.20	0.30	0.27	0.19	0.29	0.28		0.18	0.28	0.27
Past 7 days precipitation (inches)		0.00			0.01				0.00	
Accumulated precipitation (inches) (1/1/2017)		5.62			4.36				2.51	

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.

*** 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.

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1

Crops		#188 Made	ra II			#39 Parlier			#86 Lindcove			
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/16)	1.0	0.8	0.7	0.7	1.0	0.8	0.7	0.7	0.9	0.7	0.7	0.6
Pistachio (N/A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citrus (2/1)	1.1	0.9	0.8	0.7	1.1	0.9	0.8	0.7	1.0	0.9	0.8	0.7
Raisin Grapes (3/16) (late season table, 75% cover)***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walnuts (N/A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stone Fruit (3/16)	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2

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

TAST WEERLT ATTEIED WATER IN GALLONTER TREE OR VINE													
Crops		#188 Made	ra II			#39 Parlier			#86 Lindcove				
Almonds 115 Trees/A	236.1	188.9	165.3	165.3	236.1	188.9	165.3	165.3	212.5	165.3	165.3	141.7	
Pistachio 106 Trees/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Citrus 110 Trees/A	271.5	222.2	197.5	172.8	271.5	222.2	197.5	172.8	246.9	222.2	197.5	172.8	
Raisin Grapes 566 Vines/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Winegrapes 622 Vines/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Walnuts 76 Trees/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Stonefruit 172 Trees/A	47.4	47.4	31.6	31.6	47.4	47.4	31.6	31.6	47.4	31.6	31.6	31.6	
or further information concerning all counties receiving this report, contact the Fresno Co. Farm Advisor's office at (559) 241-7526.													

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WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 03/23/18 through 03/29/18

Crops (Leafout Date)	#124 Panoche			#2 Five Points			#15 Stratford			
	3/23 - 3/29	Accum'd	3/30 - 4/5	3/23 - 3/29	Accum'd	3/30 - 4/5	3/23 - 3/29	Accum'd	3/30 - 4/5	
	of Water	Seasonal	Estimated	of Water	Seasonal	Estimated	of Water	Seasonal	Estimated	
	Use	Water Use	ETc	Use	Water Use	ETc	Use	Water Use	ETc	
Almonds (3/16) *	0.64	0.87	0.76	0.70	0.94	0.81	0.70	0.93	0.81	
Pistachio (N/A) * **	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	
Citrus (2/1)	0.75	4.37	0.83	0.81	4.86	0.88	0.81	4.71	0.88	
Raisin Grapes (3/16) (11 ft. row spacing) ***	0.05	0.06	0.00	0.06	0.07	0.00	0.06	0.07	0.00	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis) ***	0.09	0.15	0.00	0.10	0.16	0.00	0.11	0.17	0.00	
Walnuts (N/A)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stone Fruit (3/16)	0.22	0.33	0.33	0.24	0.37	0.33	0.23	0.35	0.33	
Past 7 days precipitation (inches)		0.05			0.00			0.00		
Accumulated precipitation (inches) (1/1/18)		2.01			2.85			1.35		

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		#124 Panoo	che			#2 Five Poi	nts		#15 Stratford			
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/16)	1.0	0.9	0.8	0.7	1.1	0.9	0.8	0.7	1.1	0.9	0.8	0.7
Pistachio (N/A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citrus (2/1)	1.2	1.0	0.9	0.8	1.2	1.1	1.0	0.9	1.2	1.1	1.0	0.9
Raisin Grapes (3/16) (late season table, 75% cover)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Winegrapes (3/16) (50% cover)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walnuts (N/A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stone Fruit (3/16)	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.2

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Crops		#124 Panoc	che		#2 Five Points								
Almonds 115 Trees/A	236	213	189	165	260	213	189	165	260	213	189	165	
Pistachio 106 Trees/A	0	0	0	0	0	0	0	0	0	0	0	0	
Citrus 110 Trees/A	296	247	222	197	296	272	247	222	296	272	247	222	
Raisin Grapes 566 Vines/A	0	0	0	0	0	0	0	0	0	0	0	0	
Winegrapes 622 Vines/A	0	0	0	0	0	0	0	0	0	0	0	0	
Walnuts 76 Trees/A	0	0	0	0	0	0	0	0	0	0	0	0	
Stonefruit 172 Trees/A	47	47	47	32	63	47	47	47	63	47	47	32	
For further information concerning all counties receiving this report, contact	the Fresno C	Co. Farm Ad	visor's office	at (559) 24	1-7526.								

^{*} Estimates are for orchard floor conditions where vegetation is managed by some combination 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.

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^{***} 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.