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) 09/28/18 through 10/04/18

Crops (Leafout Date)	#188 Madera II ***				#39 Parlier		#86 Lindcove		
	9/28- 10/4	Accum'd	10/5-10/11	9/28- 10/4	Accum'd	10/5- 10/11	9/28- 10/4	Accum'd	10/5- 10/11
	Water	Seasonal	Estimated	Water	Seasonal	Estimated	Water	Seasonal	Estimated
	Use	Water Use	ETc	Use	Water Use	ETc	Use	Water Use	ETc
Almonds (3/16) *	1.08	41.67	0.85	1.03	43.53	0.82	1.01	42.31	0.81
Pistachio (4/21) * **	1.11	32.47	0.86	1.08	34.44	0.83	1.06	33.80	0.82
Citrus (2/1)	0.70	32.02	0.58	0.68	33.18	0.56	0.66	32.16	0.56
Raisin Grapes (3/16) (11 ft. row spacing)	0.87	30.43	0.71	0.82	31.87	0.68	0.80	31.06	0.67
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.94	33.34	0.79	0.92	35.07	0.77	0.91	34.25	0.77
Walnuts (4/4)	0.97	37.21	0.87	0.93	39.15	0.75	0.93	38.24	0.74
Stone Fruit (3/16)	1.11	35.73	1.06	1.08	37.72	0.89	1.06	36.86	0.88
Past 7 days precipitation (inches)		0.00			0.00			0.55	
Accumulated precipitation (inches) (1/1/2018)		6.33			4.96			3.87	

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

Stone Fruit (3/16)

1.7

*** 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 ETo will be used for the weekly report.

1.5

Crops		#188 Made	ra II			#39 Parlier						
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%
Almonds (3/16)	1.7	1.4	1.3	1.1	1.6	1.4	1.2	1.1	1.6	1.3	1.2	1.1
Pistachio (4/21)	1.7	1.5	1.3	1.2	1.7	1.4	1.3	1.1	1.6	1.4	1.2	1.1
Citrus (2/1)	1.1	0.9	0.8	0.7	1.0	0.9	0.8	0.7	1.0	0.9	0.8	0.7
Raisin Grapes (3/16) (11 ft. row spacing)	1.3	1.2	1.0	0.9	1.3	1.1	1.0	0.9	1.2	1.1	0.9	0.8
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	1.4	1.3	1.1	1.0	1.4	1.2	1.1	1.0	1.4	1.2	1.1	1.0
Walnuts (4/4)	1.5	1.3	1.1	1.0	1.4	1.2	1.1	1.0	1.4	1.2	1.1	1.0

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1

1.2

1.7

1.4

1.3

1.1

1.6

1.2

1.1

1.3 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		#188 Made	ra II		#39 Parlier								
Almonds 115 Trees/A	401	331	307	260	378	331	283	260	378	307	283	260	
Pistachio 106 Trees/A	424	374	324	299	424	349	324	274	399	349	299	274	
Citrus 110 Trees/A	272	222	197	173	247	222	197	173	247	222	197	173	
Raisin Grapes 566 Vines/A	62	58	48	43	62	53	48	43	58	53	43	38	
Winegrapes 622 Vines/A	61	57	48	44	61	52	48	44	61	52	48	44	
Walnuts 76 Trees/A	536	464	393	357	500	429	393	357	500	429	393	357	
Stonefruit 172 Trees/A	268	237	205	189	268	221	205	174	253	221	189	174	
For further information concerning all counties receiving this report, contact	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.

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 $ET_{C}) \\$ 09/28/18 through 10/04/18

Crops (Leafout Date)	#124 Panoche				#2 Five Points				#15 Stratford			
	9/28- 10/4	Accum'd	10/5- 10/11		9/28- 10/4	Accum'd	10/5- 10/11		9/28- 10/4	Accum'd	10/5- 10/11	
	Water	Seasonal	Estimated		Water	Seasonal	Estimated		Water	Seasonal	Estimated	Ĭ
	Use	Water Use	ETc		Use	Water Use	ETc		Use	Water Use	ETc	
Almonds (3/16) *	0.94	45.14	1.03		1.14	48.22	1.04		1.08	47.98	1.08	
Pistachio (4/21) * **	1.00	35.56	1.05		1.20	37.77	1.06		1.14	37.48	1.10	
Citrus (2/1)	0.61	35.30	0.74		0.74	37.99	0.75		0.69	37.65	0.77	
Raisin Grapes (3/16) (11 ft. row spacing)	0.76	32.52	0.89		0.90	34.56	0.89		0.85	34.37	0.91	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	0.86	35.92	0.96		1.02	38.21	0.97		0.96	38.02	1.01	
Walnuts (4/4)	0.87	40.45	0.89		1.01	43.04	0.90		0.97	42.79	0.94	
Stone Fruit (3/16)	1.00	39.07	1.15		1.20	41.64	1.16		1.14	41.33	1.22	
Past 7 days precipitation (inches)		0.00		_		0.38		-	_	0.12		
Accumulated precipitation (inches) (1/1/2018)		2.56				3.42				1.74		

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 Panoo	che			#2 Five Poi	ints						
System Efficiency >>	65%	75%	85%	95%	65%	75%	85%	95%	65%	75%	85%	95%	
Almonds (3/16)	1.4	1.3	1.1	1.0	1.8	1.5	1.3	1.2	1.7	1.4	1.3	1.1	
Pistachio (4/21)	1.5	1.3	1.2	1.1	1.8	1.6	1.4	1.3	1.8	1.5	1.3	1.2	
Citrus (2/1)	0.9	0.8	0.7	0.6	1.1	1.0	0.9	0.8	1.1	0.9	0.8	0.7	
Raisin Grapes (3/16) (11 ft. row spacing)	1.2	1.0	0.9	0.8	1.4	1.2	1.1	0.9	1.3	1.1	1.0	0.9	
Winegrapes (3/16) (10 ft. spacing on California Sprawl Trellis)	1.3	1.1	1.0	0.9	1.6	1.4	1.2	1.1	1.5	1.3	1.1	1.0	
Walnuts (4/4)	1.3	1.2	1.0	0.9	1.6	1.3	1.2	1.1	1.5	1.3	1.1	1.0	
Stone Fruit (3/16)	1.5	1.3	1.2	1.1	1.8	1.6	1.4	1.3	1.8	1.5	1.3	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 Panoo	che			#2 Five Poi	ints						
Almonds 115 Trees/A	331	307	260	236	425	354	307	283	401	331	307	260	
Pistachio 106 Trees/A	374	324	299	274	448	399	349	324	448	374	324	299	
Citrus 110 Trees/A	222	197	173	148	272	247	222	197	272	222	197	173	
Raisin Grapes 566 Vines/A	58	48	43	38	67	58	53	43	62	53	48	43	
Winegrapes 622 Vines/A	57	48	44	39	70	61	52	48	65	57	48	44	
Walnuts 76 Trees/A	464	429	357	322	572	464	429	393	536	464	393	357	
Stonefruit 172 Trees/A	237	205	189	174	284	253	221	205	284	237	205	189	
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 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.