University of California Agriculture and Natural Resources Making a Difference for California



Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 09/17/21 through 09/23/21

| Crops (Leafout Date) | # | #148 Merced | | | #39 Parlier | | | #258 Lemon Cove | | |
|---|-------------|-------------|-------------|--|-------------|-----------|-------------|-----------------|-----------|-------------|
| | 9/17 - 9/23 | Accum'd | 9/24 - 9/30 | | 9/17 - 9/23 | Accum'd | 9/24 - 9/30 | 9/17 - 9/23 | Accum'd | 9/24 - 9/30 |
| | Water | Seasonal | Estimated | | Water | Seasonal | Estimated | Water | Seasonal | Estimated |
| | Use | Water Use | ETc | | Use | Water Use | ETc | Use | Water Use | ETc |
| Almonds (3/5) * | 1.30 | 42.91 | 1.11 | | 1.28 | 45.69 | 1.07 | 1.01 | 42.24 | 1.08 |
| Pistachio (4/16) * ** | 1.17 | 37.16 | 1.02 | | 1.15 | 39.86 | 0.98 | 0.92 | 36.54 | 0.99 |
| Citrus (2/1) | 0.82 | 32.72 | 0.75 | | 0.81 | 34.57 | 0.71 | 0.65 | 32.09 | 0.72 |
| Raisin Grapes (3/12) (11 ft. row spacing) | 1.04 | 29.65 | 0.92 | | 1.02 | 31.83 | 0.91 | 0.81 | 29.15 | 0.91 |
| Winegrapes (3/12) (10 ft. spacing on California Sprawl Trellis) *** | 1.17 | 32.66 | 1.04 | | 1.15 | 35.08 | 1.00 | 0.94 | 32.11 | 1.01 |
| Walnuts (4/5) | 1.10 | 38.95 | 0.87 | | 1.08 | 41.63 | 0.83 | 0.87 | 38.33 | 0.84 |
| Stone Fruit (3/10) | 1.38 | 36.12 | 1.25 | | 1.36 | 38.73 | 1.21 | 1.09 | 35.50 | 1.22 |
| Past 7 days precipitation (inches) | | 0.00 | · | | | 0.00 | | | 0.00 | • |
| Accumulated precipitation (inches) (1/1/2021) | | 5.54 | | | | 3.66 | | | 3.90 | |

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 V | WATER IN INCHES. | , ADJUSTED FOR | EFFICIENCY 1 |
|-------------|-----------|------------------|----------------|--------------|
| | | | | |

| Crops | | #148 Merce | ed | | | #39 Parlier | | | #258 Lemon Cove | | | |
|---|-----|------------|-----|-----|-----|-------------|-----|-----|-----------------|-----|-----|-----|
| System Efficiency >> | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% |
| Almonds (3/5) | 2.0 | 1.7 | 1.5 | 1.4 | 2.0 | 1.7 | 1.5 | 1.3 | 1.6 | 1.3 | 1.2 | 1.1 |
| Pistachio (4/16) | 1.8 | 1.6 | 1.4 | 1.2 | 1.8 | 1.5 | 1.4 | 1.2 | 1.4 | 1.2 | 1.1 | 1.0 |
| Citrus (2/1) | 1.3 | 1.1 | 1.0 | 0.9 | 1.2 | 1.1 | 1.0 | 0.9 | 1.0 | 0.9 | 0.8 | 0.7 |
| Raisin Grapes (3/12) (11 ft. row spacing)*** | 1.6 | 1.4 | 1.2 | 1.1 | 1.6 | 1.4 | 1.2 | 1.1 | 1.2 | 1.1 | 1.0 | 0.9 |
| Winegrapes (3/12) (10 ft. spacing on California Sprawl Trellis) *** | 1.8 | 1.6 | 1.4 | 1.2 | 1.8 | 1.5 | 1.4 | 1.2 | 1.4 | 1.3 | 1.1 | 1.0 |
| Walnuts (4/5) | 1.7 | 1.5 | 1.3 | 1.2 | 1.7 | 1.4 | 1.3 | 1.1 | 1.3 | 1.2 | 1.0 | 0.9 |
| Stone Fruit (3/10) | 2.1 | 1.8 | 1.6 | 1.5 | 2.1 | 1.8 | 1.6 | 1.4 | 1.7 | 1.5 | 1.3 | 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 WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE

| Crops | | #148 Merce | ed | | | #39 Parlier | , | | #258 Lemon Cove | | | | | | | | | |
|--|--------------|-------------|----------------|-------------|--------|-------------|--|-----|-----------------|-----|-----|-----|--|--|--|--|--|--|
| Almonds 115 Trees/A | 472 | 401 | 354 | 331 | 472 | 401 | 354 | 307 | 378 | 307 | 283 | 260 | | | | | | |
| Pistachio 106 Trees/A | 448 | 399 | 349 | 299 | 448 | 374 | 349 | 299 | 349 | 299 | 274 | 249 | | | | | | |
| Citrus 110 Trees/A | 321 | 272 | 247 | 222 | 296 | 272 | 247 | 222 | 247 | 222 | 197 | 173 | | | | | | |
| Raisin Grapes 566 Vines/A | 77 | 67 | 58 | 53 | 77 | 67 | 58 | 53 | 58 | 53 | 48 | 43 | | | | | | |
| Winegrapes 622 Vines/A | 79 | 70 | 61 | 52 | 79 | 65 | 61 | 52 | 61 | 57 | 48 | 44 | | | | | | |
| Walnuts 76 Trees/A | 607 | 536 | 464 | 429 | 607 | 500 | 464 | 393 | 464 | 429 | 357 | 322 | | | | | | |
| Stonefruit 172 Trees/A | 332 | 284 | 253 | 237 | 332 | 284 | 253 | 221 | 268 | 237 | 205 | 174 | | | | | | |
| For further information concerning all counties receiving this report, contact | the Fresno C | 'o Farm Adv | visor's office | at (559) 24 | 1-7526 | | or 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 trip 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.

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Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 09/17/21 through 09/23/21

| Crops (Leafout Date) | #124 Panoche | | | #2 Five Points | | | #15 Stratford | | | |
|---|--------------|-----------|------------|----------------|-----------|------------|---------------|-----------|------------|--|
| Crops (Ecarout Date) | 9/17 - 9/23 | Accum'd | 9/24- 9/30 | 9/17 - 9/23 | Accum'd | 9/24- 9/30 | 9/17 - 9/23 | Accum'd | 9/24- 9/30 | |
| | Water | Seasonal | Estimated | Water | Seasonal | Estimated | Water | Seasonal | Estimated | |
| | | | | | | | | | | |
| | Use | Water Use | ETc | Use | Water Use | ETc | Use | Water Use | ETc | |
| Almonds (3/5) * | 1.42 | 48.71 | 1.19 | 1.50 | 49.27 | 1.30 | 1.51 | 50.31 | 1.25 | |
| Pistachio (4/16) * ** | 1.28 | 42.86 | 1.10 | 1.36 | 42.83 | 1.21 | 1.37 | 44.05 | 1.16 | |
| Citrus (2/1) | 0.87 | 37.10 | 0.79 | 0.94 | 37.97 | 0.88 | 0.96 | 38.30 | 0.85 | |
| Raisin Grapes (3/12) (11 ft. row spacing) | 1.14 | 34.15 | 0.98 | 1.20 | 34.18 | 1.09 | 1.21 | 35.14 | 1.04 | |
| Winegrapes (3/12) (10 ft. spacing on California Sprawl Trellis) | 1.28 | 37.68 | 1.12 | 1.36 | 37.80 | 1.23 | 1.37 | 38.79 | 1.18 | |
| Walnuts (4/5) | 1.21 | 44.70 | 0.93 | 1.25 | 44.85 | 1.02 | 1.25 | 45.90 | 0.99 | |
| Stone Fruit (3/10) | 1.49 | 41.50 | 1.33 | 1.57 | 41.78 | 1.44 | 1.58 | 42.81 | 1.39 | |
| Past 7 days precipitation (inches) | | 0.00 | • | | 0.00 | | | 0.00 | | |
| Accumulated precipitation (inches) (1/1/2021) | | 3.83 | | | 4.72 | | | 3.06 | | |

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 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 | 2.3 | 2.0 | 1.8 | 1.6 | 2.3 | 2.0 | 1.8 | 1.6 |
| Pistachio (4/16) | 2.0 | 1.7 | 1.5 | 1.3 | 2.1 | 1.8 | 1.6 | 1.4 | 2.1 | 1.8 | 1.6 | 1.4 |
| Citrus (2/1) | 1.3 | 1.2 | 1.0 | 0.9 | 1.4 | 1.3 | 1.1 | 1.0 | 1.5 | 1.3 | 1.1 | 1.0 |
| Raisin Grapes (3/12) (11 ft. row spacing) | 1.8 | 1.5 | 1.3 | 1.2 | 1.8 | 1.6 | 1.4 | 1.3 | 1.9 | 1.6 | 1.4 | 1.3 |
| Winegrapes (3/12) (10 ft. spacing on California Sprawl Trellis) | 2.0 | 1.7 | 1.5 | 1.3 | 2.1 | 1.8 | 1.6 | 1.4 | 2.1 | 1.8 | 1.6 | 1.4 |
| Walnuts (4/5) | 1.9 | 1.6 | 1.4 | 1.3 | 1.9 | 1.7 | 1.5 | 1.3 | 1.9 | 1.7 | 1.5 | 1.3 |
| Stone Fruit (3/10) | 2.3 | 2.0 | 1.8 | 1.6 | 2.4 | 2.1 | 1.8 | 1.7 | 2.4 | 2.1 | 1.9 | 1.7 |

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 | #124 Panoche | | | | | #2 Five Poi | ints | | | | | |
| Almonds 115 Trees/A | 519 | 449 | 401 | 354 | 543 | 472 | 425 | 378 | 543 | 472 | 425 | 378 |
| Pistachio 106 Trees/A | 498 | 424 | 374 | 324 | 523 | 448 | 399 | 349 | 523 | 448 | 399 | 349 |
| Citrus 110 Trees/A | 321 | 296 | 247 | 222 | 346 | 321 | 272 | 247 | 370 | 321 | 272 | 247 |
| Raisin Grapes 566 Vines/A | 86 | 72 | 62 | 58 | 86 | 77 | 67 | 62 | 91 | 77 | 67 | 62 |
| Winegrapes 622 Vines/A | 87 | 74 | 65 | 57 | 92 | 79 | 70 | 61 | 92 | 79 | 70 | 61 |
| Walnuts 76 Trees/A | 679 | 572 | 500 | 464 | 679 | 607 | 536 | 464 | 679 | 607 | 536 | 464 |
| Stonefruit 172 Trees/A | 363 | 316 | 284 | 253 | 379 | 332 | 284 | 268 | 379 | 332 | 300 | 268 |
| For further information concerning all counties receiving this report, contact | the Fresno C | o. Farm Adv | visor's office | at (559) 24 | 1-7526. | | | | • | | | |

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