University of California Agriculture and Natural Resources

Making a Difference for California



UCCE/DWR Weekly Crop Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 09/13/24 through 09/19/24

| Crops (Leafout Date) | #148 Merced | | | | #39 Parlier | | | #258 Lemon Cove | | |
|---|---------------|-----------|---------------|---|---------------|-----------|---------------|-----------------|-----------|---------------|
| | 09/13 - 09/19 | Accum'd | 09/20 - 09/26 | | 09/13 - 09/19 | Accum'd | 09/20 - 09/26 | 09/13 - 09/19 | Accum'd | 09/20 - 09/26 |
| | Water | Seasonal | Estimated | | Water | Seasonal | Estimated | Water | Seasonal | Estimated |
| | Use | Water Use | ETc | | Use | Water Use | ETc | Use | Water Use | ETc |
| Almonds (3/1) * | 1.32 | 42.11 | 1.16 | | 1.29 | 43.85 | 1.12 | 1.26 | 42.52 | 1.02 |
| Pistachio (4/20) * ** | 1.26 | 34.68 | 1.09 | | 1.23 | 36.13 | 1.05 | 1.20 | 35.07 | 0.95 |
| Citrus (2/1) | 0.87 | 30.89 | 0.77 | | 0.84 | 32.31 | 0.76 | 0.81 | 31.30 | 0.67 |
| Raisin Grapes (3/11) (11 ft. row spacing) | 0.90 | 24.58 | 0.81 | | 0.89 | 25.61 | 0.78 | 0.87 | 24.87 | 0.75 |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) *** | 1.02 | 27.09 | 0.93 | | 0.99 | 28.28 | 0.89 | 0.97 | 27.44 | 0.81 |
| Walnuts (4/20) | 1.31 | 32.74 | 1.12 | | 1.32 | 34.22 | 1.11 | 1.29 | 33.21 | 1.02 |
| Stone Fruit (3/11) | 1.41 | 34.78 | 1.30 | | 1.37 | 36.38 | 1.26 | 1.35 | 35.28 | 1.13 |
| Past 7 days precipitation (inches) | | 0.00 | | - | | 0.07 | | | 0.02 | |
| Accumulated precipitation (inches) (1/1/2024) | | 14.98 | | | | 9.05 | | | 9.73 | |

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 | A TO A TREED THE TREETING | AD HIGHED EAT | |
|----------------------|---------------------------|---------------|-------------------------------|
| PASI WHEKI V APPLIEL |) WALER IN INCHES | | 2 H H H I (H N (V * |
| | | | |

| Crops | | | #39 Parlier | | | #258 Lemon Cove | | | | | | |
|---|-------|---------------|-------------|-----|-------------------------|-----------------|-----|-------------------------|------------------|-----|-----|-----|
| System Efficiency >> | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% |
| Almonds (3/1) | 2.0 | 1.8 | 1.6 | 1.4 | 2.0 | 1.7 | 1.5 | 1.4 | 1.9 | 1.7 | 1.5 | 1.3 |
| Pistachio (4/20) | 1.9 | 1.7 | 1.5 | 1.3 | 1.9 | 1.6 | 1.4 | 1.3 | 1.8 | 1.6 | 1.4 | 1.3 |
| Citrus (2/1) | 1.3 | 1.2 | 1.0 | 0.9 | 1.3 | 1.1 | 1.0 | 0.9 | 1.2 | 1.1 | 1.0 | 0.9 |
| Raisin Grapes (3/11) (11 ft. row spacing)*** | As | sume all gra | pe | 0.9 | Assume all grape 0.9 | | | 0.9 | Assume all grape | | | 0.9 |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) *** | irrig | ation type is | drip | 1.1 | irrigation type is drip | | 1.0 | irrigation type is drip | | 1.0 | | |
| Walnuts (4/20) | 2.0 | 1.7 | 1.5 | 1.4 | 2.0 | 1.8 | 1.6 | 1.4 | 2.0 | 1.7 | 1.5 | 1.4 |
| Stone Fruit (3/11) | 2.2 | 1.9 | 1.7 | 1.5 | 2.1 | 1.8 | 1.6 | 1.4 | 2.1 | 1.8 | 1.6 | 1.4 |

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

| | | #39 Parlier | | | #258 Lemon Cove | | | | | | |
|-------|--|---|--|--|---|--|---|---|--|--|---|
| 472 | 425 | 378 | 331 | 472 | 401 | 354 | 331 | 449 | 401 | 354 | 307 |
| 473 | 424 | 374 | 324 | 473 | 399 | 349 | 324 | 448 | 399 | 349 | 324 |
| 321 | 296 | 247 | 222 | 321 | 272 | 247 | 222 | 296 | 272 | 247 | 222 |
| As | sume all gra | pe | 43 | Assume all grape 43 | | | Assume all grape | | | 43 | |
| irrig | ation type is | drip | 48 | irrig | irrigation type is drip 44 | | 44 | irrigation type is drip | | | 44 |
| 715 | 607 | 536 | 500 | 715 | 643 | 572 | 500 | 715 | 607 | 536 | 500 |
| 347 | 300 | 268 | 237 | 332 | 284 | 253 | 221 | 332 | 284 | 253 | 221 |
| | 473 321 As irriga 715 347 | 472 425 473 424 321 296 Assume all gra irrigation type is 715 607 347 300 | 473 424 374 321 296 247 Assume all grape irrigation type is drip 715 607 536 347 300 268 | 472 425 378 331 473 424 374 324 321 296 247 222 Assume all grape 43 irrigation type is drip 48 715 607 536 500 347 300 268 237 | 472 425 378 331 472 473 424 374 324 473 321 296 247 222 321 Assume all grape 43 Assume irrigation type is drip 48 irrigation type is drip 715 607 536 500 715 | 472 425 378 331 472 401 473 424 374 324 473 399 321 296 247 222 321 272 Assume all grape 43 Assume all grape irrigation type is drip 48 irrigation type is 715 607 536 500 715 643 347 300 268 237 332 284 | 472 425 378 331 472 401 354 473 424 374 324 473 399 349 321 296 247 222 321 272 247 Assume all grape irrigation type is drip 48 irrigation type is drip 715 607 536 500 715 643 572 347 300 268 237 332 284 253 | 472 425 378 331 472 401 354 331 473 424 374 324 473 399 349 324 321 296 247 222 321 272 247 222 Assume all grape 43 Assume all grape 43 irrigation type is drip 48 irrigation type is drip 44 715 607 536 500 715 643 572 500 347 300 268 237 332 284 253 221 | 472 425 378 331 472 401 354 331 449 473 424 374 324 473 399 349 324 448 321 296 247 222 321 272 247 222 296 Assume all grape 43 Assume all grape 43 Assume all grape 44 irrigation type is drip 44 irrigation type is drip 44 irrigation type is drip 44 347 300 268 237 332 284 253 221 332 | 472 425 378 331 472 401 354 331 449 401 473 424 374 324 473 399 349 324 448 399 321 296 247 222 321 272 247 222 296 272 Assume all grape 43 Assume all grape 43 Assume all grape 44 irrigation type is 715 607 536 500 715 643 572 500 715 607 347 300 268 237 332 284 253 221 332 284 | 472 425 378 331 472 401 354 331 449 401 354 473 424 374 324 473 399 349 324 448 399 349 321 296 247 222 321 272 247 222 296 272 247 Assume all grape 43 Assume all grape 43 Assume all grape irrigation type is drip 44 irrigation type is drip 715 607 536 500 715 643 572 500 715 607 536 347 300 268 237 332 284 253 221 332 284 253 |

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.

University of California Agriculture and Natural Resources

Making a Difference for California



UCCE/DWR Weekly Crop Water Use Report

WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 09/13/24 through 09/19/24

| Crops (Leafout Date) | #124 Panoche | | | #2 Five Points | | | #15 Stratford | | | |
|---|--------------|-----------|--------------|----------------|-----------|--------------|---------------|-----------|--------------|--|
| | 09/13- 09/19 | Accum'd | 09/13- 09/19 | 09/13- 09/19 | Accum'd | 09/13- 09/19 | 09/13- 09/19 | Accum'd | 09/13- 09/19 | |
| | Water | Seasonal | Estimated | Water | Seasonal | Estimated | Water | Seasonal | Estimated | |
| | Use | Water Use | ETc | Use | Water Use | ETc | Use | Water Use | ETc | |
| Almonds (3/1) * | 1.27 | 45.44 | 1.24 | 1.25 | 46.08 | 1.35 | 1.36 | 44.10 | 1.31 | |
| Pistachio (4/20) * ** | 1.21 | 38.01 | 1.17 | 1.17 | 38.39 | 1.28 | 1.28 | 37.02 | 1.24 | |
| Citrus (2/1) | 0.81 | 33.66 | 0.84 | 0.78 | 34.31 | 0.91 | 0.84 | 32.74 | 0.89 | |
| Raisin Grapes (3/11) (11 ft. row spacing) | 0.87 | 26.82 | 0.88 | 0.85 | 27.16 | 0.97 | 0.91 | 26.03 | 0.94 | |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) | 0.99 | 29.60 | 0.99 | 0.94 | 29.84 | 1.09 | 1.04 | 28.74 | 1.05 | |
| Walnuts (4/20) | 1.29 | 35.94 | 1.17 | 1.25 | 36.23 | 1.28 | 1.37 | 35.20 | 1.24 | |
| Stone Fruit (3/11) | 1.34 | 38.34 | 1.38 | 1.32 | 38.65 | 1.49 | 1.43 | 37.36 | 1.45 | |
| Past 7 days precipitation (inches) | | 0.00 | | | 0.08 | | | 0.02 | | |
| Accumulated precipitation (inches) (1/1/2024) | | 6.60 | | | 6.94 | | | 5.45 | | |

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 Panoc | he | | #2 Five Poi | nts | | | | | | | | |
| System Efficiency >> | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | | |
| Almonds (3/1) | 2.0 | 1.7 | 1.5 | 1.3 | 1.9 | 1.7 | 1.5 | 1.3 | 2.1 | 1.8 | 1.6 | 1.4 | | |
| Pistachio (4/20) | 1.9 | 1.6 | 1.4 | 1.3 | 1.8 | 1.6 | 1.4 | 1.2 | 2.0 | 1.7 | 1.5 | 1.3 | | |
| Citrus (2/1) | 1.2 | 1.1 | 1.0 | 0.9 | 1.2 | 1.0 | 0.9 | 0.8 | 1.3 | 1.1 | 1.0 | 0.9 | | |
| Raisin Grapes (3/11) (11 ft. row spacing) | As | ssume all gra | ipe | 0.9 | Assume all grape 0.9 | | | 0.9 | A | 1.0 | | | | |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) | irrig | ation type is | drip | 1.0 | irrigation type is drip | | 1.0 | irrigation type is drip | | drip | 1.1 | | | |
| Walnuts (4/20) | 2.0 | 1.7 | 1.5 | 1.4 | 1.9 | 1.7 | 1.5 | 1.3 | 2.1 | 1.8 | 1.6 | 1.4 | | |
| Stone Fruit (3/11) | 2.1 | 1.8 | 1.6 | 1.4 | 2.0 | 1.8 | 1.6 | 1.4 | 2.2 | 1.9 | 1.7 | 1.5 | | |

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 Panoc | che | | | #2 Five Poi | nts | | #15 Stratford | | | |
|--|--|----------------|------|-----|----------------------------|--------------------|-----|------------------|-------------------------|-----|-----|-----|
| Almonds 115 Trees/A | 472 | 401 | 354 | 307 | 449 | 401 | 354 | 307 | 496 | 425 | 378 | 331 |
| Pistachio 106 Trees/A | 473 | 399 | 349 | 324 | 448 | 399 | 349 | 299 | 498 | 424 | 374 | 324 |
| Citrus 110 Trees/A | 296 | 272 | 247 | 222 | 296 | 247 | 222 | 197 | 321 | 272 | 247 | 222 |
| Raisin Grapes 566 Vines/A | Assume all grape | | | 43 | Assume all grape 43 | | | Assume all grape | | | 48 | |
| Winegrapes 622 Vines/A | irrig | gation type is | drip | 44 | irrigation type is drip 44 | | | 44 | irrigation type is drip | | | 48 |
| Walnuts 76 Trees/A | 715 | 607 | 536 | 500 | 679 | 607 | 536 | 464 | 750 | 643 | 572 | 500 |
| Stonefruit 172 Trees/A | 332 | 284 | 253 | 221 | 316 | 284 | 253 | 221 | 347 | 300 | 268 | 237 |
| For further information concerning all counties receiving this report, contact | r 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.