

## UCCE/DWR Weekly Crop Water Use Report

#### WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET<sub>C</sub>) 08/18/23 through 08/24/23

| Crops (Leafout Date)  | #148 Merced |           |             | #39 Parlier |           |             | #25         | 58 Lemon C | ove         |
|---|-------------|-----------|-------------|-------------|-----------|-------------|-------------|------------|-------------|
|   | 8/18 - 8/24 | Accum'd   | 8/25 - 8/31 | 8/18 - 8/24 | Accum'd   | 8/25 - 8/31 | 8/18 - 8/24 | Accum'd    | 8/25 - 8/31 |
|   | Water       | Seasonal  | Estimated   | Water       | Seasonal  | Estimated   | Water       | Seasonal   | Estimated   |
|   | Use         | Water Use | ETc         | Use         | Water Use | ETc         | Use         | Water Use  | ETc         |
| Almonds (3/13) *  | 1.49        | 33.51     | 1.87        | 1.54        | 35.35     | 1.79        | 1.44        | 34.52      | 1.75        |
| Pistachio (4/20) * **   | 1.50        | 27.74     | 1.92        | 1.55        | 29.22     | 1.79        | 1.46        | 28.83      | 1.75        |
| Citrus (2/1)  | 0.90        | 25.42     | 1.16        | 0.92        | 27.02     | 1.12        | 0.85        | 26.23      | 1.11        |
| Raisin Grapes (3/22) (11 ft. row spacing)                           | 0.98        | 18.01     | 1.23        | 1.00        | 18.96     | 1.16        | 0.94        | 18.73      | 1.13        |
| Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis) *** | 1.11        | 19.75     | 1.41        | 1.15        | 20.80     | 1.34        | 1.07        | 20.53      | 1.31        |
| Walnuts (4/20)  | 1.55        | 25.96     | 1.99        | 1.61        | 27.40     | 1.86        | 1.52        | 27.06      | 1.82        |
| Stone Fruit (3/19)  | 1.50        | 28.90     | 1.92        | 1.55        | 30.39     | 1.79        | 1.46        | 29.94      | 1.75        |
| Past 7 days precipitation (inches)                                  |             | 0.03      |             |             | 0.51      |             |             | 0.88       | •           |
| Accumulated precipitation (inches) (1/1/2023)                       |             | 16.39     |             |             | 13.04     |             |             | 16.68      |             |

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

<sup>\*\*</sup> 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.

| PA  | AST WEEK | LY APPLII               | ED WATEF | R IN INCHI | ES, ADJUST              | TED FOR E | EFFICIENC | Y 1    |               |      |     |     |
|---|----------|-------------------------|----------|------------|-------------------------|-----------|-----------|--------|---------------|------|-----|-----|
| Crops   |          | #148 Merc               | ed       |            | #39 Parlier             |           |           |        |               |      |     |     |
| System Efficiency >>  | 65%      | 75%                     | 85%      | 95%        | 65%                     | 75%       | 85%       | 95%    | 65%           | 75%  | 85% | 95% |
| Almonds (3/13)  | 2.3      | 2.0                     | 1.8      | 1.6        | 2.4                     | 2.1       | 1.8       | 1.6    | 2.2           | 1.9  | 1.7 | 1.5 |
| Pistachio (4/20)  | 2.3      | 2.0                     | 1.8      | 1.6        | 2.4                     | 2.1       | 1.8       | 1.6    | 2.2           | 1.9  | 1.7 | 1.5 |
| Citrus (2/1)  | 1.4      | 1.2                     | 1.1      | 0.9        | 1.4                     | 1.2       | 1.1       | 1.0    | 1.3           | 1.1  | 1.0 | 0.9 |
| Raisin Grapes (3/22) (11 ft. row spacing)***                        | As       | sume all gr             | ape      | 1.0        | Assume all grape 1.     |           |           | 1.1    | As            | 1.0  |     |     |
| Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis) *** | irrig    | irrigation type is drip |          |            | irrigation type is drip |           | 1.2       | irriga | ation type is | drip | 1.1 |     |
| Walnuts (4/20)  | 2.4      | 2.1                     | 1.8      | 1.6        | 2.5                     | 2.1       | 1.9       | 1.7    | 2.3           | 2.0  | 1.8 | 1.6 |
| Stone Fruit (3/19)  | 2.3      | 2.0                     | 1.8      | 1.6        | 2.4                     | 2.1       | 1.8       | 1.6    | 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 W | PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE |        |     |                     |                            |     |     |                         |     |     |     |  |
|---------------------------|--------|--|--------|-----|---------------------|----------------------------|-----|-----|-------------------------|-----|-----|-----|--|
| Crops                     |        | #148 Merced  |        |     |                     | #39 Parlier                | •   |     | #258 Lemon Cove         |     |     |     |  |
| Almonds 115 Trees/A       | 543    | 472  | 425    | 378 | 567                 | 496                        | 425 | 378 | 519                     | 449 | 401 | 354 |  |
| Pistachio 106 Trees/A     | 573    | 498  | 448    | 399 | 598                 | 523                        | 448 | 399 | 548                     | 473 | 424 | 374 |  |
| Citrus 110 Trees/A        | 346    | 296  | 272    | 222 | 346                 | 296                        | 272 | 247 | 321                     | 272 | 247 | 222 |  |
| Raisin Grapes 566 Vines/A | As     | sume all gr  | ape    | 48  | Assume all grape 53 |                            |     | As  | 48                      |     |     |     |  |
| Winegrapes 622 Vines/A    | irriga | ation type is  | s drip | 52  | irrig               | irrigation type is drip 52 |     |     | irrigation type is drip |     |     | 48  |  |
| Walnuts 76 Trees/A        | 857    | 750  | 643    | 572 | 893                 | 750                        | 679 | 607 | 822                     | 715 | 643 | 572 |  |
| Stonefruit 172 Trees/A    | 363    | 316  | 284    | 253 | 379                 | 332                        | 284 | 253 | 347                     | 300 | 268 | 237 |  |

<sup>\*</sup> 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<sub>C</sub>) 08/18/23 through 08/24/23

| Crops (Leafout Date)  | #124 Panoche |           |           | #2 Five Points |           |           | #15 Stratford |           |           |  |
|---|--------------|-----------|-----------|----------------|-----------|-----------|---------------|-----------|-----------|--|
|   | 8/18-8/24    | Accum'd   | 8/25-8/31 | 8/18-8/24      | Accum'd   | 8/25-8/31 | 8/18-8/24     | Accum'd   | 8/25-8/31 |  |
|   | Water        | Seasonal  | Estimated | Water          | Seasonal  | Estimated | Water         | Seasonal  | Estimated |  |
|   | Use          | Water Use | ETc       | Use            | Water Use | ETc       | Use           | Water Use | ETc       |  |
| Almonds (3/13) *  | 1.58         | 36.21     | 1.87      | 1.55           | 35.38     | 2.03      | 1.62          | 38.72     | 2.01      |  |
| Pistachio (4/20) * **   | 1.62         | 30.33     | 1.92      | 1.56           | 29.35     | 2.10      | 1.65          | 32.03     | 2.08      |  |
| Citrus (2/1)  | 0.96         | 27.30     | 1.21      | 0.95           | 26.94     | 1.30      | 0.99          | 29.39     | 1.28      |  |
| Raisin Grapes (3/22) (11 ft. row spacing)                       | 1.05         | 19.31     | 1.23      | 1.01           | 18.77     | 1.37      | 1.07          | 20.40     | 1.35      |  |
| Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis) | 1.19         | 21.15     | 3.11      | 1.16           | 20.49     | 1.55      | 1.22          | 22.35     | 1.53      |  |
| Walnuts (4/20)  | 1.69         | 28.41     | 1.99      | 1.63           | 27.45     | 2.17      | 1.71          | 30.04     | 2.15      |  |
| Stone Fruit (3/19)  | 1.62         | 31.67     | 1.92      | 1.56           | 30.76     | 2.10      | 1.65          | 33.67     | 2.08      |  |
| Past 7 days precipitation (inches)                              |              | 0.18      |           |                | 0.74      |           |               | 0.25      |           |  |
| Accumulated precipitation (inches) (1/1/2023)                   |              | 6.36      |           |                | 8.39      |           |               | 8.15      |           |  |

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

<sup>\*\*</sup> 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.

| PA  | ST WEEK      | LY APPLI      | ED WATEI | R IN INCHI | ES, ADJUST       | TED FOR E               | EFFICIENC | Y 1 |                         |     |        |     |
|---|--------------|---------------|----------|------------|------------------|-------------------------|-----------|-----|-------------------------|-----|--------|-----|
| Crops   | #124 Panoche |               |          |            |                  | #2 Five Po              | ints      |     |                         |     |        |     |
| System Efficiency >>  | 65%          | 75%           | 85%      | 95%        | 65%              | 75%                     | 85%       | 95% | 65%                     | 75% | 85%    | 95% |
| Almonds (3/13)  | 2.4          | 2.1           | 1.9      | 1.7        | 2.4              | 2.1                     | 1.8       | 1.6 | 2.5                     | 2.2 | 1.9    | 1.7 |
| Pistachio (4/20)  | 2.5          | 2.2           | 1.9      | 1.7        | 2.4              | 2.1                     | 1.8       | 1.6 | 2.5                     | 2.2 | 1.9    | 1.7 |
| Citrus (2/1)  | 1.5          | 1.3           | 1.1      | 1.0        | 1.5              | 1.3                     | 1.1       | 1.0 | 1.5                     | 1.3 | 1.2    | 1.0 |
| Raisin Grapes (3/22) (11 ft. row spacing)                       | As           | sume all gr   | ape      | 1.1        | Assume all grape |                         |           | 1.1 | Assume all grape        |     |        | 1.1 |
| Winegrapes (3/22) (10 ft. spacing on California Sprawl Trellis) | irriga       | ation type is | s drip   | 1.3        | irriga           | irrigation type is drip |           | 1.2 | irrigation type is drip |     | s drip | 1.3 |
| Walnuts (4/20)  | 2.6          | 2.3           | 2.0      | 1.8        | 2.5              | 2.2                     | 1.9       | 1.7 | 2.6                     | 2.3 | 2.0    | 1.8 |
| Stone Fruit (3/19)  | 2.5          | 2.2           | 1.9      | 1.7        | 2.4              | 2.1                     | 1.8       | 1.6 | 2.5                     | 2.2 | 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 C   | GALLON PI               | ER TREE C   | OR VINE |     |                         |     |        |     |
|--|--------------|---------------|----------------|-------------|-------------------------|-------------|---------|-----|-------------------------|-----|--------|-----|
| Crops  |              | #124 Pano     | che            |             |                         | #2 Five Poi | ints    |     |                         |     |        |     |
| Almonds 115 Trees/A  | 567          | 496           | 449            | 401         | 567                     | 496         | 425     | 378 | 590                     | 519 | 449    | 401 |
| Pistachio 106 Trees/A  | 623          | 548           | 473            | 424         | 598                     | 523         | 448     | 399 | 623                     | 548 | 473    | 424 |
| Citrus 110 Trees/A   | 370          | 321           | 272            | 247         | 370                     | 321         | 272     | 247 | 370                     | 321 | 296    | 247 |
| Raisin Grapes 566 Vines/A  | As           | sume all gr   | ape            | 53          | Assume all grape 53     |             |         | 53  | As                      | ape | 53     |     |
| Winegrapes 622 Vines/A   | irrig        | ation type is | s drip         | 57          | irrigation type is drip |             |         | 52  | irrigation type is drip |     | s drip | 57  |
| Walnuts 76 Trees/A   | 929          | 822           | 715            | 643         | 893                     | 786         | 679     | 607 | 929                     | 822 | 715    | 643 |
| Stonefruit 172 Trees/A   | 395          | 347           | 300            | 268         | 379                     | 332         | 284     | 253 | 395                     | 347 | 300    | 268 |
| For further information concerning all counties receiving this report, contact | the Fresno C | Co. Farm Ad   | visor's office | at (559) 24 | 1-7526.                 |             |         |     |                         |     |        |     |

<sup>\*</sup> 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.