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) 04/05/24 through 04/11/24

| Crops (Leafout Date) | # | 148 Merce | d | | #39 Parlier | • | #25 | 8 Lemon C | ove |
|---|------------|-----------|-------------|------------|-------------|-------------|------------|-----------|-------------|
| | 4/5 - 4/11 | Accum'd | 4/12 - 4/18 | 4/7 - 4/13 | Accum'd | 4/12 - 4/18 | 4/7 - 4/13 | Accum'd | 4/12 - 4/18 |
| | Water | Seasonal | Estimated | Water | Seasonal | Estimated | Water | Seasonal | Estimated |
| | Use | Water Use | ETc | Use | Water Use | ETc | Use | Water Use | ETc |
| Almonds (3/1) * | 0.74 | 3.40 | 0.90 | 0.83 | 3.57 | 0.96 | 0.79 | 3.35 | 0.96 |
| Pistachio (TBD) * ** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Citrus (2/1) | 0.73 | 5.12 | 0.81 | 0.79 | 5.37 | 0.87 | 0.75 | 5.15 | 0.87 |
| Raisin Grapes (3/11) (11 ft. row spacing) | 0.10 | 0.31 | 0.14 | 0.13 | 0.31 | 0.14 | 0.11 | 0.29 | 0.14 |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) | 0.16 | 0.55 | 0.00 | 0.18 | 0.58 | 0.00 | 0.18 | 0.53 | 0.00 |
| Walnuts (TBD) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Stone Fruit (3/11) | 0.29 | 1.02 | 0.46 | 0.35 | 1.09 | 0.49 | 0.34 | 1.04 | 0.49 |
| Past 7 days precipitation (inches) | | 0.34 | | | 0.18 | | | 0.11 | |
| Accumulated precipitation (inches) (1/1/2024) | | 14.98 | | | 7.83 | | | 8.51 | |

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

^{***} 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.

| | PASI WEEKLY APPI | PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY | | | | | | | | | | |
|----------|------------------|--|-------|------|------------|-------|-------|--|--|--|--|--|
| Crops | #148 M | erced | | | #39 Parlie | r | | | | | | |
| C + Ecc. | (50/ 750/ | 0.50/ | 0.50/ | (50/ | 750/ | 0.50/ | 0.507 | | | | | |

| Crops | | #148 Merc | ed | | #39 Parlier | | | | #258 Lemon Cove | | | | |
|---|-----|-----------|-----|-----|-------------|-----|-----|-----|-----------------|-----|-----|-----|--|
| System Efficiency >> | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | |
| Almonds (3/1) | 1.1 | 1.0 | 0.9 | 0.8 | 1.3 | 1.1 | 1.0 | 0.9 | 1.2 | 1.1 | 0.9 | 0.8 | |
| Pistachio (TBD) | 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 | 1.0 | 0.9 | 0.8 | 1.2 | 1.1 | 0.9 | 0.8 | 1.2 | 1.0 | 0.9 | 0.8 | |
| Raisin Grapes (3/11) (11 ft. row spacing)*** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) *** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 | |
| Walnuts (TBD) | 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 (3/11) | 0.4 | 0.4 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 | |

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

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|--|---------------|--------------|---------------|--------------|----------------|-------------|--------|-----|-----------------|-----|-----|-----|--|
| Crops | | #148 Merc | ed | | | #39 Parlie | r | | #258 Lemon Cove | | | | |
| Almonds 115 Trees/A | 260 | 236 | 213 | 189 | 307 | 260 | 236 | 213 | 283 | 260 | 213 | 189 | |
| Pistachio 106 Trees/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Citrus 110 Trees/A | 272 | 247 | 222 | 197 | 296 | 272 | 222 | 197 | 296 | 247 | 222 | 197 | |
| Raisin Grapes 566 Vines/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | |
| Winegrapes 622 Vines/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 9 | |
| Walnuts 76 Trees/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Stonefruit 172 Trees/A | 63 | 63 | 47 | 47 | 79 | 79 | 63 | 63 | 79 | 79 | 63 | 63 | |
| For further information concerning all counties receiving this report, contact | ct the Fresno | o Co. Farm A | Advisor's off | ice at (559) | 241-7526. | | | | | | | | |

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

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WEEKLY SOIL MOISTURE LOSS IN INCHES

(Estimated Crop Evapotranspiration or ET_C) 04/05/24 through 04/11/24

| Crops (Leafout Date) | #124 Panoche | | | #2 Five Points | | | # | | | |
|---|--------------|-----------|-------------|----------------|-----------|-------------|------------|-----------|-------------|--|
| | 4/5 - 4/11 | Accum'd | 4/12 - 4/18 | 4/5 - 4/11 | Accum'd | 4/12 - 4/18 | 4/5 - 4/11 | Accum'd | 4/12 - 4/18 | |
| | Water | Seasonal | Estimated | Water | Seasonal | Estimated | Water | Seasonal | Estimated | |
| | Use | Water Use | ETc | Use | Water Use | ETc | Use | Water Use | ETc | |
| Almonds (3/1) * | 0.88 | 3.20 | 1.00 | 0.87 | 3.24 | 1.07 | 0.84 | 3.11 | 1.06 | |
| Pistachio (TBD) * ** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Citrus (2/1) | 0.84 | 5.36 | 0.93 | 0.82 | 5.53 | 1.00 | 0.80 | 5.37 | 0.99 | |
| Raisin Grapes (3/11) (11 ft. row spacing) | 0.12 | 0.32 | 0.14 | 0.11 | 0.32 | 0.18 | 0.12 | 0.32 | 0.17 | |
| Winegrapes (3/11) (10 ft. spacing on California Sprawl Trellis) | 0.19 | 0.59 | 0.00 | 0.17 | 0.57 | 0.00 | 0.17 | 0.57 | 0.00 | |
| Walnuts (TBD) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Stone Fruit (3/11) | 0.37 | 1.13 | 0.51 | 0.38 | 1.03 | 0.56 | 0.34 | 0.97 | 0.55 | |
| Past 7 days precipitation (inches) | | 0.22 | | | 0.12 | | | 0.13 | | |
| Accumulated precipitation (inches) (1/1/2024) | | 5.81 | | | 6.29 | | | 4.30 | | |

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

Walnuts (TBD)

Stone Fruit (3/11)

0.0

0.6

0.0

0.5

^{***} 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.

| Crops | | #124 Pano | che | | | #2 Five Poi | ints | | | #15 Stratfo | rd | |
|---|-----|-----------|-----|-----|-----|-------------|------|-----|-----|-------------|-----|-----|
| System Efficiency >> | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% | 65% | 75% | 85% | 95% |
| Almonds (3/1) | 1.4 | 1.2 | 1.0 | 0.9 | 1.3 | 1.2 | 1.0 | 0.9 | 1.3 | 1.1 | 1.0 | 0.9 |
| Pistachio (TBD) | 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) | 1.3 | 1.1 | 1.0 | 0.9 | 1.3 | 1.1 | 1.0 | 0.9 | 1.2 | 1.1 | 0.9 | 0.8 |
| Raisin Grapes (3/11) (11 ft. row spacing) | 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 (3/11) (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 |

PAST WEEKLY APPLIED WATER IN INCHES, ADJUSTED FOR EFFICIENCY 1

0.0

0.4

0.0

0.6

0.0

0.5

0.0

0.4

0.0

0.4

0.0

0.5

0.0

0.5

0.0

0.4

0.0

0.4

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%.

0.0

0.4

PAST WEEKLY APPLIED WATER IN GALLON PER TREE OR VINE

| | PASI V | VEEKLY A | PPLIED W | AIERING | JALLUN P | ER IREE (| JK VINE | | | | | |
|--|---------------|-----------------------------|---------------|---------------|-----------|-----------|---------|---------------|-----|-----|-----|-----|
| Crops | | #124 Panoche #2 Five Points | | | | | | #15 Stratford | | | | |
| Almonds 115 Trees/A | 331 | 283 | 236 | 213 | 307 | 283 | 236 | 213 | 307 | 260 | 236 | 213 |
| Pistachio 106 Trees/A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Citrus 110 Trees/A | 321 | 272 | 247 | 222 | 321 | 272 | 247 | 222 | 296 | 272 | 222 | 197 |
| 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 | 95 | 79 | 63 | 63 | 95 | 79 | 63 | 63 | 79 | 79 | 63 | 63 |
| For further information concerning all counties receiving this report, contact | ct the Fresno | Co. Farm A | dvisor's offi | ce at (559) 2 | 241-7526. | | | | | | | |

^{*} Estimates are for orchard floor conditions where vegetation is managed by some combination of strip applications of herbicides, frequent moving 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.