

ETc Table for Irrigation Scheduling and Design

Zone 16 Monthly Evapotranspiration

Surface Irrigation Dry Year

IRRIGATION TRAINING AND RESEARCH CENTER, California Polytechnic State University, San Luis Obispo

Table does not include adjustments for bare spots and reduced vigor

| | 1999 (Dry Year) | | | | | | |
|--|-----------------|----------|--------|--------|--------|--------|--------|
| | January | February | March | April | May | June | July |
| | inches | inches | inches | inches | inches | inches | inches |
| Precipitation | 2.33 | 0.76 | 2.11 | 1.49 | 0.05 | 0.06 | 0 |
| Grass Reference ETo | 0.82 | 1.9 | 3.55 | 5.51 | 7.98 | 8.32 | 8.75 |
| Apple, Pear, Cherry, Plum and Prune | 0.51 | 1.03 | 2.18 | 4.95 | 7.23 | 7.61 | 8.15 |
| Apples, Plums, Cherries etc w/covercrop | 0.71 | 1.97 | 4.23 | 6.42 | 8.68 | 9.48 | 9.82 |
| Peach, Nectarine and Apricots | 0.51 | 1.03 | 1.83 | 4.2 | 6.67 | 7.67 | 8.22 |
| Immature Peaches, Nectarines, etc | 0.52 | 1.04 | 1.67 | 3.11 | 4.19 | 5.29 | 5.29 |
| Almonds | 0.51 | 1.31 | 2.28 | 5.5 | 6.65 | 6.81 | 7.28 |
| Almonds w/covercrop | 0.67 | 1.95 | 3.31 | 6.18 | 7.95 | 7.89 | 8.75 |
| Immature Almonds | 0.52 | 1.15 | 1.97 | 4.68 | 5.65 | 5.9 | 6.37 |
| Walnuts | 0.51 | 1.03 | 2.34 | 4.33 | 7.54 | 9.4 | 9.9 |
| Pistachio | 0.51 | 1.03 | 1.52 | 2.96 | 2.8 | 6.52 | 9.38 |
| Pistachio w/ covercrop | 0.75 | 1.97 | 3 | 5.41 | 5.89 | 8.39 | 10.21 |
| Immature Pistachio | 0.52 | 1.04 | 1.52 | 2.49 | 1.68 | 4.36 | 6.47 |
| Misc. Deciduous | 0.51 | 1.03 | 2.18 | 4.71 | 6.99 | 7.24 | 7.73 |
| Grain and Grain Hay | 0.64 | 2.09 | 3.95 | 6.22 | 4.05 | 0.07 | 0 |
| Cotton | 0.53 | 1.04 | 1.5 | 2.43 | 1.74 | 5.21 | 9.33 |
| Safflower and Sunflower | 0.86 | 1.26 | 2.37 | 6.08 | 9.34 | 8.06 | 0.75 |
| Corn and Grain Sorghum | 0.53 | 1.04 | 2.65 | 2.83 | 2.9 | 7.7 | 9.23 |
| Beans | 0.53 | 1.04 | 2.65 | 2.83 | 2.83 | 8.09 | 8.7 |
| Misc. field crops | 0.53 | 1.04 | 2.65 | 2.83 | 2.83 | 8.09 | 8.7 |
| Alfalfa Hay and Clover | 0.9 | 2.08 | 4.02 | 6.22 | 7.34 | 7.67 | 7.85 |
| Pasture and Misc. Grasses | 0.53 | 1.58 | 2.89 | 5.67 | 7.96 | 8.36 | 8.82 |
| Small Vegetables | 0.81 | 1.52 | 3.55 | 6.06 | 1.65 | 0.06 | 0 |
| Tomatoes and Peppers | 0.53 | 1.04 | 2.05 | 2.63 | 4.5 | 9.02 | 8.31 |
| Potatoes, Sugar beets, Turnip etc.. | 0.92 | 1.31 | 2.7 | 6.28 | 9.05 | 9.47 | 8.17 |
| Melons, Squash, and Cucumbers | 0.53 | 1.04 | 1.5 | 2.03 | 0.85 | 1.45 | 5.54 |
| Onions and Garlic | 0.63 | 1.95 | 3.53 | 5.38 | 5.26 | 0.82 | 0 |
| Flowers, Nursery and Christmas Tree | 0.51 | 1.03 | 2.18 | 4.71 | 6.99 | 7.24 | 7.73 |
| Citrus (no ground cover) | 0.89 | 2.05 | 3.61 | 5.89 | 5.89 | 6.06 | 6.34 |
| Immature Citrus | 0.68 | 1.56 | 2.58 | 4.26 | 3.64 | 3.76 | 4 |
| Misc Subtropical | 0.51 | 1.03 | 2.18 | 4.71 | 6.99 | 7.24 | 7.73 |
| Grape Vines with 80% canopy | 0.52 | 1.04 | 1.86 | 3.19 | 4.51 | 6.38 | 6.77 |
| Grape Vines with cover crop (80% canopy) | 0.58 | 1.65 | 3.09 | 4.99 | 5.96 | 7.09 | 7.81 |
| Immature Grapes Vines with 50% canopy | 0.52 | 1.04 | 1.67 | 2.79 | 3.29 | 4.78 | 5.39 |
| Idle | 0.54 | 1.04 | 1.49 | 2.03 | 0.06 | 0.06 | 0 |

| | August inches | September inches | October inches | November inches | December inches | Annual inches |
|--|------------------|---------------------|-------------------|--------------------|--------------------|------------------|
| Precipitation | 0 | 0.11 | 0.43 | 0.08 | 0.22 | 7.63 |
| Grass Reference ETo | 7.41 | 6.1 | 4.45 | 2.1 | 1.55 | 58.44 |
| Apple, Pear, Cherry, Plum and Prune | 6.97 | 5.26 | 2.85 | 0.1 | 0.19 | 47.05 |
| Apples, Plums, Cherries etc w/covercrop | 8.48 | 6.62 | 3.92 | 1.51 | 0.92 | 62.75 |
| Peach, Nectarine and Apricots | 6.79 | 5.55 | 2.69 | 0.1 | 0.19 | 45.46 |
| Immature Peaches, Nectarines, etc | 4.51 | 3.48 | 1.9 | 0.1 | 0.19 | 31.29 |
| Almonds | 6.64 | 4.71 | 2.71 | 0.1 | 0.19 | 44.72 |
| Almonds w/covercrop | 7.05 | 5.71 | 2.66 | 0.96 | 0.64 | 53.71 |
| Immature Almonds | 5.23 | 3.75 | 2.14 | 0.1 | 0.19 | 37.65 |
| Walnuts | 8.43 | 6.03 | 3.23 | 0.18 | 0.19 | 53.13 |
| Pistachio | 7.95 | 6.13 | 3.3 | 0.25 | 0.19 | 42.56 |
| Pistachio w/ covercrop | 8.72 | 6.93 | 4.39 | 1.27 | 0.78 | 57.71 |
| Immature Pistachio | 5.57 | 4.23 | 2.19 | 0.15 | 0.19 | 30.4 |
| Misc. Deciduous | 6.64 | 5.18 | 2.83 | 0.1 | 0.19 | 45.34 |
| Grain and Grain Hay | 0 | 0.12 | 0.4 | 0.76 | 0.4 | 18.69 |
| Cotton | 8.15 | 6.22 | 2.13 | 0.11 | 0.19 | 38.57 |
| Safflower and Sunflower | 0 | 0.12 | 0.4 | 0.1 | 0.19 | 29.54 |
| Corn and Grain Sorghum | 5.22 | 0.44 | 0.4 | 0.1 | 0.19 | 33.24 |
| Beans | 2.83 | 0.14 | 0.4 | 0.1 | 0.19 | 30.32 |
| Misc. field crops | 2.83 | 0.14 | 0.4 | 0.1 | 0.19 | 30.32 |
| Alfalfa Hay and Clover | 6.93 | 5.51 | 2.25 | 1.76 | 1.64 | 54.17 |
| Pasture and Misc. Grasses | 7.48 | 6.07 | 3.87 | 0.65 | 0.19 | 54.07 |
| Small Vegetables | 1.01 | 1.46 | 1.57 | 1.57 | 1.58 | 20.83 |
| Tomatoes and Peppers | 0.64 | 0.14 | 0.4 | 0.1 | 0.19 | 29.55 |
| Potatoes, Sugar beets, Turnip etc.. | 0.06 | 0.14 | 0.4 | 0.1 | 0.19 | 38.78 |
| Melons, Squash, and Cucumbers | 6.17 | 2.05 | 0.4 | 0.1 | 0.19 | 21.84 |
| Onions and Garlic | 0 | 0.12 | 0.4 | 0.84 | 0.47 | 19.39 |
| Flowers, Nursery and Christmas Tree | 6.64 | 5.18 | 2.83 | 0.1 | 0.19 | 45.34 |
| Citrus (no ground cover) | 5.36 | 4.44 | 3.66 | 1.72 | 1.25 | 47.16 |
| Immature Citrus | 3.43 | 2.86 | 2.3 | 0.95 | 0.76 | 30.78 |
| Misc Subtropical | 6.64 | 5.18 | 2.83 | 0.1 | 0.19 | 45.34 |
| Grape Vines with 80% canopy | 5.08 | 3.2 | 0.4 | 0.1 | 0.19 | 33.23 |
| Grape Vines with cover crop (80% canopy) | 5.96 | 3.84 | 2.11 | 0.76 | 0.54 | 44.37 |
| Immature Grapes Vines with 50% canopy | 3.68 | 2.36 | 0.46 | 0.1 | 0.19 | 26.27 |
| Idle | 0 | 0.12 | 0.39 | 0.1 | 0.19 | 6.02 |