

SJ Valley Irrigation for Olive Oil

- 1. Total Potential Need = 45-48” (full ET)**

- 2. Minus Stored Soil Moisture from Rainfall**
 - a. Rainfall = 3-15”**
 - b. Soil Rooting Depth = 2” per foot**

- 3. Vigor Management**
 - a. Push Young Trees – 75% to 100% ET**
 - b. Mature Trees = 45-70% ET**
 - c. Manage Alternate Bearing**
 - d. Good Shoot Growth for Next Year**
 - e. Good Oil Extraction**
 - f. Good Oil Flavor**
 - g. Most Growth Occurs in Late April to June**
 - h. Excess Vigor is a Problem**

- 4. Bloom and Set**
 - a. Stress = poor flower development**
 - b. Stress = poor set**

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**APPROXIMATE WATER USE BASED ON HISTORICAL ET
in FOUR DIFFERENT CLIMATIC ZONES (GALLONS PER DAY)**

Age or Size of Olive Tree	Coastal Marine 0.10 in/day Cool Day Early Spring or Late Fall Sunny		Coastal Cool 0.20 in/day Warm day Spring or Fall Some fog		Coastal Warm 0.25 in/day Hot Day Mid-Summer No fog		Interior Valley 0.30 in/day Very Hot Mid-summer Windy	
	<i>Full ET</i>	<i>Gallons to apply per day*</i>	<i>Full ET</i>	<i>Gallons to apply per day*</i>	<i>Full ET</i>	<i>Gallons to apply per day*</i>	<i>Full ET</i>	<i>Gallons to apply per day*</i>
1 ft ² newly planted tree	0.062	0.5	0.125	0.5	0.156	0.5	0.187	0.5
4 ft ² young tree	0.25	0.5	0.50	0.5	0.62	0.75	0.75	1
10 ft ² young tree	0.62	0.75	1.25	1.3	1.56	1.6	1.87	2
25 ft ² young tree	1.55	1.6	3.12	3.5	3.90	4	4.67	5
50 ft ² young tree	3.10	3.2	6.24	6.5	7.80	8	9.34	10
50 ft ² mature tree Super HD 13' x 5'	3.10	1.5	6.24	3	7.80	4	9.34	4.5
75 ft ² young tree	4.65	5	9.40	10	11.70	12	14.01	15
100 ft ² young tree	6.20	7	12.50	13	15.6	16	18.7	19
100 ft ² mature tree 16' x 8'	6.20	3	12.50	6	15.6	7	18.7	9
150 ft ² young tree	9.30	10	18.80	19	23.40	24	28.02	29
200 ft ² young tree	12.40	13	25.00	25	31.20	32	37.40	38
200 ft ² mature tree 20' x 12'	12.40	6	25.00	11.5	31.20	14	37.40	17
250 ft ² young tree	15.50	16	31.25	32	39.00	40	46.75	47
300 ft ² mature tree 20' x 16'	18.60	8.5	37.50	17	46.80	21	56.10	25.5
1 acre Solid cover	2,701	1,215	5,445	2,450	6,795	3,058	8,146	3,666

* Adjustments made for tree age and for mature trees (crop coefficient 45% of full ET)

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