Weekly Irrigation Requirements for Strawberries in the Pajaro Valley*

Week	Month	48-inch beds, 2 drip lines per bed					
		0.4 gpm/100 ft flowrate		**0.5** gpm/100 ft flowrate		**0.67** gpm/100 ft flowrate	
		Average	Maximum	Average	Maximum	Average	Maximum
1	Jan	--- 10 min	--- 15 min	--- 10 min	--- 10 min	--- 5 min	--- 10 min
2		--- 15 min	--- 25 min	--- 10 min	--- 20 min	--- 10 min	--- 15 min
3		--- 15 min	--- 30 min	--- 15 min	--- 25 min	--- 10 min	--- 15 min
4		--- 15 min	--- 25 min	--- 15 min	--- 20 min	--- 10 min	--- 15 min
5	Feb	--- 20 min	--- 35 min	--- 20 min	--- 25 min	--- 15 min	--- 20 min
6		--- 25 min	--- 50 min	--- 20 min	--- 40 min	--- 15 min	--- 30 min
7		--- 30 min	--- 40 min	--- 25 min	--- 35 min	--- 20 min	--- 25 min
8		--- 35 min	--- 55 min	--- 30 min	--- 45 min	--- 20 min	--- 35 min
9	Mar	--- 45 min	1 hrs 20 min	--- 35 min	1 hrs 5 min	--- 30 min	--- 50 min
10		1 hrs	1 hrs 25 min	--- 50 min	1 hrs 10 min	--- 40 min	--- 50 min
11		1 hrs 15 min	1 hrs 50 min	1 hrs ---	1 hrs 30 min	--- 45 min	1 hrs 5 min
12		1 hrs 25 min	2 hrs ---	1 hrs 10 min	1 hrs 35 min	--- 50 min	1 hrs 10 min
13		1 hrs 50 min	2 hrs 25 min	1 hrs 30 min	2 hrs ---	1 hrs 5 min	1 hrs 30 min
14	Apr	2 hrs 5 min	3 hrs ---	1 hrs 40 min	2 hrs 25 min	1 hrs 15 min	1 hrs 45 min
15		2 hrs 30 min	3 hrs 15 min	2 hrs ---	2 hrs 35 min	1 hrs 30 min	2 hrs ---
16		2 hrs 50 min	3 hrs 45 min	2 hrs 15 min	3 hrs ---	1 hrs 40 min	2 hrs 15 min
17		3 hrs 15 min	4 hrs 45 min	2 hrs 35 min	3 hrs 45 min	1 hrs 55 min	2 hrs 50 min
18	May	3 hrs 40 min	5 hrs 15 min	2 hrs 55 min	4 hrs 10 min	2 hrs 10 min	3 hrs 10 min
19		3 hrs 55 min	5 hrs ---	3 hrs 10 min	4 hrs	2 hrs 20 min	3 hrs ---
20		4 hrs 5 min	5 hrs 30 min	3 hrs 15 min	4 hrs 25 min	2 hrs 25 min	3 hrs 20 min
21		4 hrs ---	4 hrs 55 min	3 hrs 15 min	3 hrs 55 min	2 hrs 25 min	2 hrs 55 min
22	Jun	4 hrs 30 min	6 hrs 15 min	3 hrs 35 min	5 hrs ---	2 hrs 40 min	3 hrs 45 min
23		4 hrs 45 min	6 hrs 40 min	3 hrs 45 min	5 hrs 20 min	2 hrs 50 min	4 hrs ---
24		5 hrs 5 min	6 hrs 30 min	4 hrs 5 min	5 hrs 10 min	3 hrs ---	3 hrs 55 min
25		5 hrs 5 min	6 hrs 55 min	4 hrs 5 min	5 hrs 30 min	3 hrs 5 min	4 hrs 10 min
26		5 hrs 15 min	6 hrs 45 min	4 hrs 10 min	5 hrs 25 min	3 hrs 10 min	4 hrs 5 min
27	Jul	5 hrs 5 min	6 hrs 45 min	4 hrs 5 min	5 hrs 25 min	3 hrs 5 min	4 hrs ---
28		5 hrs 10 min	6 hrs 50 min	4 hrs 5 min	5 hrs 30 min	3 hrs 5 min	4 hrs 5 min
29		5 hrs 5 min	6 hrs 40 min	4 hrs 5 min	5 hrs 20 min	3 hrs 5 min	4 hrs ---
30		4 hrs 40 min	6 hrs 40 min	3 hrs 45 min	5 hrs 20 min	2 hrs 50 min	4 hrs ---
31	Aug	4 hrs 50 min	6 hrs 40 min	3 hrs 50 min	5 hrs 20 min	2 hrs 55 min	4 hrs ---
32		5 hrs ---	7 hrs 10 min	4 hrs ---	5 hrs 45 min	3 hrs ---	4 hrs 15 min
33		4 hrs 40 min	6 hrs 35 min	3 hrs 45 min	5 hrs 15 min	2 hrs 50 min	3 hrs 55 min
34		4 hrs 35 min	6 hrs 30 min	3 hrs 40 min	5 hrs 15 min	2 hrs 45 min	3 hrs 55 min
35	Sep	4 hrs 50 min	6 hrs 15 min	3 hrs 55 min	5 hrs ---	2 hrs 55 min	3 hrs 45 min
36		4 hrs 55 min	6 hrs 55 min	3 hrs 55 min	5 hrs 30 min	2 hrs 55 min	4 hrs 10 min
37		4 hrs 15 min	5 hrs 35 min	3 hrs 25 min	4 hrs 30 min	2 hrs 35 min	3 hrs 20 min
38		4 hrs 15 min	5 hrs 45 min	3 hrs 25 min	4 hrs 35 min	2 hrs 35 min	3 hrs 25 min
39		3 hrs 50 min	5 hrs 30 min	3 hrs 5 min	4 hrs 25 min	2 hrs 20 min	3 hrs 20 min
40	Oct	4 hrs 5 min	6 hrs 10 min	3 hrs 15 min	5 hrs ---	2 hrs 25 min	3 hrs 45 min
41		3 hrs 45 min	4 hrs 55 min	3 hrs ---	4 hrs ---	2 hrs 15 min	3 hrs ---
42		3 hrs 20 min	4 hrs 40 min	2 hrs 40 min	3 hrs 45 min	2 hrs ---	2 hrs 50 min
43		3 hrs 5 min	5 hrs 10 min	2 hrs 30 min	4 hrs 10 min	1 hrs 50 min	3 hrs 5 min
44		2 hrs 45 min	3 hrs 50 min	2 hrs 10 min	3 hrs	1 hrs 40 min	2 hrs 15 min
45 **new crop**	Nov	--- 5 min	--- 5 min	--- 5 min	--- 5 min	--- 5 min	--- 5 min
46		--- 5 min	--- 10 min	--- 5 min	--- 5 min	--- 5 min	--- 5 min
47		--- 5 min	--- 10 min	--- 5 min	--- 5 min	--- 5 min	--- 5 min
48	Dec	--- 5 min	--- 10 min	--- 5 min	--- 10 min	--- 5 min	--- 5 min
49		--- 5 min	--- 10 min	--- 5 min	--- 10 min	--- 5 min	--- 5 min
50		--- 5 min	--- 10 min	--- 5 min	--- 10 min	--- 5 min	--- 10 min
51		--- 10 min	--- 15 min	--- 5 min	--- 10 min	--- 5 min	--- 10 min
52		--- 10 min	--- 20 min	--- 10 min	--- 15 min	--- 5 min	--- 10 min

*See reverse page for instructions and limitations. **The weekly irrigation should be divided into three to four times per week.**

RESOURCE
CONSERVATION DISTRICT
OF SANTA CRUZ COUNTY

Quick Reference Guide Weekly Irrigation Schedule for Strawberries in the Pajaro Valley

*This table schedule was developed by the Resource Conservation District of Santa Cruz County as a quick reference guide for irrigation scheduling in the field. It is **NOT** an alternative to more advanced techniques (CIMIS ETo, CropManage, soil sensors etc).*

This table provides the **average and maximum weekly hours of irrigation** needed for strawberry crops in the Pajaro Valley, based on the evaluation of weekly weather conditions over the past 20 years and average irrigation system efficiency. **The weekly irrigation should be divided into three to four times per week.**

There are three different irrigation schedule sheets based on the layout of your crop. Make sure to use the correct table.

- 48" beds with one drip line per bed
- 48" beds with two drip lines per bed
- 52" beds with two drip lines per bed

EXAMPLE: 48" bed, 2 drip lines per bed, 0.5 gpm/100 ft
2nd week of May (week 19). From the table you get 3 hours and 10 minutes.
Irrigate on Monday, Wednesday and Friday for 1 hour and 3 minutes each.

For each combination, the table gives **maximum and average irrigation required** for dripline flow rates. The average value is what should be applied under most conditions, based on the average weekly evapotranspiration and a well maintained and operated drip irrigation system. The maximum value would only be during periods of extremely high evapotranspiration corresponding to hotter and/or windier than average conditions. The maximum was calculated based on the 20 year maximum and low irrigation system efficiency. **Do not exceed the recommended hours of irrigations unless your are over irrigating for a specific purpose such as leaching salts.**

Table Use Assumptions

- The drip system is run at its operating pressure, usually 8-10 psi. This table does not provide guidance to determine the acreage that can be irrigated for a given pump.
- Strictly limited to strawberries grown in 48" or 52" beds with two rows per bed with plants spaced about 14 inches apart.
- The crop is planted in the second week of November and terminated at the end of October, thus the irrigation requirements for the second, third and fourth week of November refer to new plantings.

Table Calculation Assumptions

Irrigation system efficiency (equivalent to distribution uniformity for a drip system and assuming negligible leaks) of 0.85 was chosen for the maximum requirement, and 0.9 for the average requirement. No leaching requirement for salinity management was applied.

Evapotranspiration data in this table was obtained from the CIMIS station #129 in Pajaro, CA, for the time series from 1/1/1996 to 1/1/2016 using average weekly evapotranspiration across the whole time series and the maximum weekly evapotranspiration observed across the time series.

To calculate the irrigation required, Kc for 48" and 52" bed strawberries were obtained from "Estimated Crop Coefficients for Strawberry" from the blog of Dr. Mike Cahn of the UCCS of Monterey County. <http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=6934>4

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