



Table 1. Values of midday stem water potential (SWP in Bars tension) to expect for fully irrigated walnut trees under different conditions of air temperature and relative humidity.

(Table courtesy of Ken Shackel, Department of Pomology, University of California Davis)



Air Temp (F)	Air Relative Humidity															
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
60	-3.8	-3.7	-3.7	-3.6	-3.6	-3.5	-3.5	-3.4	-3.3	-3.3	-3.2	-3.2	-3.1	-3.1	-3.0	-2.9
62	-3.9	-3.8	-3.8	-3.7	-3.6	-3.6	-3.5	-3.4	-3.4	-3.3	-3.3	-3.2	-3.1	-3.1	-3.0	-3.0
64	-4.0	-3.9	-3.8	-3.8	-3.7	-3.6	-3.6	-3.5	-3.4	-3.4	-3.3	-3.2	-3.2	-3.1	-3.0	-3.0
66	-4.0	-4.0	-3.9	-3.8	-3.8	-3.7	-3.6	-3.5	-3.5	-3.4	-3.3	-3.3	-3.2	-3.1	-3.1	-3.0
68	-4.1	-4.1	-4.0	-3.9	-3.8	-3.8	-3.7	-3.6	-3.5	-3.5	-3.4	-3.3	-3.2	-3.2	-3.1	-3.0
70	-4.2	-4.1	-4.1	-4.0	-3.9	-3.8	-3.7	-3.7	-3.6	-3.5	-3.4	-3.3	-3.3	-3.2	-3.1	-3.0
72	-4.3	-4.2	-4.2	-4.1	-4.0	-3.9	-3.8	-3.7	-3.6	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1	-3.0
74	-4.4	-4.3	-4.2	-4.2	-4.1	-4.0	-3.9	-3.8	-3.7	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1	-3.1
76	-4.5	-4.4	-4.3	-4.3	-4.2	-4.1	-4.0	-3.9	-3.8	-3.7	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1
78	-4.7	-4.6	-4.5	-4.4	-4.2	-4.1	-4.0	-3.9	-3.8	-3.7	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1
80	-4.8	-4.7	-4.6	-4.5	-4.3	-4.2	-4.1	-4.0	-3.9	-3.8	-3.7	-3.6	-3.5	-3.3	-3.2	-3.1
82	-4.9	-4.8	-4.7	-4.6	-4.5	-4.3	-4.2	-4.1	-4.0	-3.9	-3.7	-3.6	-3.5	-3.4	-3.3	-3.1
84	-5.1	-4.9	-4.8	-4.7	-4.6	-4.4	-4.3	-4.2	-4.1	-3.9	-3.8	-3.7	-3.5	-3.4	-3.3	-3.2
86	-5.2	-5.1	-5.0	-4.8	-4.7	-4.5	-4.4	-4.3	-4.1	-4.0	-3.9	-3.7	-3.6	-3.5	-3.3	-3.2
88	-5.4	-5.2	-5.1	-4.9	-4.8	-4.7	-4.5	-4.4	-4.2	-4.1	-3.9	-3.8	-3.6	-3.5	-3.4	-3.2
90	-5.6	-5.4	-5.2	-5.1	-4.9	-4.8	-4.6	-4.5	-4.3	-4.2	-4.0	-3.9	-3.7	-3.6	-3.4	-3.2
92	-5.7	-5.6	-5.4	-5.2	-5.1	-4.9	-4.7	-4.6	-4.4	-4.3	-4.1	-3.9	-3.8	-3.6	-3.4	-3.3
94	-5.9	-5.7	-5.6	-5.4	-5.2	-5.0	-4.9	-4.7	-4.5	-4.4	-4.2	-4.0	-3.8	-3.7	-3.5	-3.3
96	-6.1	-5.9	-5.7	-5.6	-5.4	-5.2	-5.0	-4.8	-4.6	-4.4	-4.3	-4.1	-3.9	-3.7	-3.5	-3.3
98	-6.3	-6.1	-5.9	-5.7	-5.5	-5.3	-5.1	-4.9	-4.8	-4.6	-4.4	-4.2	-4.0	-3.8	-3.6	-3.4
100	-6.5	-6.3	-6.1	-5.9	-5.7	-5.5	-5.3	-5.1	-4.9	-4.7	-4.5	-4.2	-4.0	-3.8	-3.6	-3.4
102	-6.8	-6.6	-6.3	-6.1	-5.9	-5.7	-5.4	-5.2	-5.0	-4.8	-4.6	-4.3	-4.1	-3.9	-3.7	-3.4
104	-7.0	-6.8	-6.6	-6.3	-6.1	-5.8	-5.6	-5.4	-5.1	-4.9	-4.7	-4.4	-4.2	-4.0	-3.7	-3.5
106	-7.3	-7.0	-6.8	-6.5	-6.3	-6.0	-5.8	-5.5	-5.3	-5.0	-4.8	-4.5	-4.3	-4.0	-3.8	-3.5
108	-7.6	-7.3	-7.0	-6.8	-6.5	-6.2	-6.0	-5.7	-5.4	-5.2	-4.9	-4.6	-4.4	-4.1	-3.8	-3.6
110	-7.8	-7.6	-7.3	-7.0	-6.7	-6.4	-6.2	-5.9	-5.6	-5.3	-5.0	-4.7	-4.5	-4.2	-3.9	-3.6
112	-8.1	-7.8	-7.5	-7.2	-7.0	-6.7	-6.4	-6.1	-5.8	-5.5	-5.2	-4.9	-4.6	-4.3	-4.0	-3.7
114	-8.5	-8.1	-7.8	-7.5	-7.2	-6.9	-6.6	-6.3	-5.9	-5.6	-5.3	-5.0	-4.7	-4.4	-4.0	-3.7
116	-8.8	-8.5	-8.1	-7.8	-7.5	-7.1	-6.8	-6.5	-6.1	-5.8	-5.5	-5.1	-4.8	-4.4	-4.1	-3.8
118	-9.1	-8.8	-8.4	-8.1	-7.7	-7.4	-7.0	-6.7	-6.3	-6.0	-5.6	-5.3	-4.9	-4.5	-4.2	-3.8
120	-9.5	-9.1	-8.8	-8.4	-8.0	-7.6	-7.3	-6.9	-6.5	-6.1	-5.8	-5.4	-5.0	-4.6	-4.3	-3.9

 Common ranges of SWP under cool weather conditions

 Common ranges of SWP under normal weather conditions

 Common ranges of SWP under hot weather conditions





Table 2. Values of midday stem water potential (SWP in Bars tension) to expect for fully irrigated almond and dried plum trees under different conditions of air temperature and relative humidity.

(Table courtesy of Ken Shackel, Department of Pomology, University of California Davis)

Air Temp (F)	Air Relative Humidity															
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
60	-6.0	-5.9	-5.8	-5.7	-5.6	-5.5	-5.4	-5.3	-5.2	-5.1	-4.9	-4.8	-4.7	-4.6	-4.5	-4.4
62	-6.1	-6.0	-5.9	-5.8	-5.7	-5.6	-5.5	-5.4	-5.2	-5.1	-5.0	-4.9	-4.8	-4.7	-4.6	-4.4
64	-6.3	-6.2	-6.1	-5.9	-5.8	-5.7	-5.6	-5.4	-5.3	-5.2	-5.1	-5.0	-4.8	-4.7	-4.6	-4.5
66	-6.5	-6.3	-6.2	-6.1	-5.9	-5.8	-5.7	-5.5	-5.4	-5.3	-5.1	-5.0	-4.9	-4.8	-4.6	-4.5
68	-6.6	-6.5	-6.3	-6.2	-6.1	-5.9	-5.8	-5.6	-5.5	-5.4	-5.2	-5.1	-4.9	-4.8	-4.7	-4.5
70	-6.8	-6.7	-6.5	-6.4	-6.2	-6.1	-5.9	-5.8	-5.6	-5.5	-5.3	-5.2	-5.0	-4.9	-4.7	-4.6
72	-7.0	-6.8	-6.7	-6.5	-6.4	-6.2	-6.0	-5.9	-5.7	-5.5	-5.4	-5.2	-5.1	-4.9	-4.7	-4.6
74	-7.2	-7.0	-6.9	-6.7	-6.5	-6.3	-6.2	-6.0	-5.8	-5.6	-5.5	-5.3	-5.1	-5.0	-4.8	-4.6
76	-7.4	-7.2	-7.0	-6.9	-6.7	-6.5	-6.3	-6.1	-5.9	-5.8	-5.6	-5.4	-5.2	-5.0	-4.8	-4.7
78	-7.6	-7.4	-7.2	-7.0	-6.9	-6.7	-6.5	-6.3	-6.1	-5.9	-5.7	-5.5	-5.3	-5.1	-4.9	-4.7
80	-7.9	-7.7	-7.5	-7.2	-7.0	-6.8	-6.6	-6.4	-6.2	-6.0	-5.8	-5.6	-5.4	-5.1	-4.9	-4.7
82	-8.1	-7.9	-7.7	-7.5	-7.2	-7.0	-6.8	-6.6	-6.3	-6.1	-5.9	-5.7	-5.4	-5.2	-5.0	-4.8
84	-8.4	-8.2	-7.9	-7.7	-7.4	-7.2	-7.0	-6.7	-6.5	-6.2	-6.0	-5.8	-5.5	-5.3	-5.1	-4.8
86	-8.7	-8.4	-8.2	-7.9	-7.7	-7.4	-7.2	-6.9	-6.6	-6.4	-6.1	-5.9	-5.6	-5.4	-5.1	-4.9
88	-9.0	-8.7	-8.4	-8.2	-7.9	-7.6	-7.4	-7.1	-6.8	-6.5	-6.3	-6.0	-5.7	-5.5	-5.2	-4.9
90	-9.3	-9.0	-8.7	-8.4	-8.1	-7.9	-7.6	-7.3	-7.0	-6.7	-6.4	-6.1	-5.8	-5.5	-5.3	-5.0
92	-9.6	-9.3	-9.0	-8.7	-8.4	-8.1	-7.8	-7.5	-7.2	-6.9	-6.6	-6.3	-5.9	-5.6	-5.3	-5.0
94	-10.0	-9.7	-9.3	-9.0	-8.7	-8.4	-8.0	-7.7	-7.4	-7.0	-6.7	-6.4	-6.1	-5.7	-5.4	-5.1
96	-10.4	-10.0	-9.7	-9.3	-9.0	-8.6	-8.3	-7.9	-7.6	-7.2	-6.9	-6.5	-6.2	-5.8	-5.5	-5.1
98	-10.8	-10.4	-10.0	-9.6	-9.3	-8.9	-8.5	-8.2	-7.8	-7.4	-7.1	-6.7	-6.3	-5.9	-5.6	-5.2
100	-11.2	-10.8	-10.4	-10.0	-9.6	-9.2	-8.8	-8.4	-8.0	-7.6	-7.2	-6.8	-6.5	-6.1	-5.7	-5.3
102	-11.6	-11.2	-10.8	-10.4	-9.9	-9.5	-9.1	-8.7	-8.3	-7.9	-7.4	-7.0	-6.6	-6.2	-5.8	-5.4
104	-12.1	-11.6	-11.2	-10.7	-10.3	-9.9	-9.4	-9.0	-8.5	-8.1	-7.6	-7.2	-6.8	-6.3	-5.9	-5.4
106	-12.5	-12.1	-11.6	-11.1	-10.7	-10.2	-9.7	-9.3	-8.8	-8.3	-7.9	-7.4	-6.9	-6.4	-6.0	-5.5
108	-13.1	-12.6	-12.1	-11.6	-11.1	-10.6	-10.1	-9.6	-9.1	-8.6	-8.1	-7.6	-7.1	-6.6	-6.1	-5.6
110	-13.6	-13.1	-12.5	-12.0	-11.5	-11.0	-10.4	-9.9	-9.4	-8.8	-8.3	-7.8	-7.3	-6.7	-6.2	-5.7
112	-14.2	-13.6	-13.0	-12.5	-11.9	-11.4	-10.8	-10.2	-9.7	-9.1	-8.6	-8.0	-7.5	-6.9	-6.3	-5.8
114	-14.7	-14.2	-13.6	-13.0	-12.4	-11.8	-11.2	-10.6	-10.0	-9.4	-8.8	-8.2	-7.6	-7.1	-6.5	-5.9
116	-15.4	-14.7	-14.1	-13.5	-12.9	-12.2	-11.6	-11.0	-10.4	-9.7	-9.1	-8.5	-7.9	-7.2	-6.6	-6.0
118	-16.0	-15.4	-14.7	-14.0	-13.4	-12.7	-12.0	-11.4	-10.7	-10.1	-9.4	-8.7	-8.1	-7.4	-6.7	-6.1
120	-16.7	-16.0	-15.3	-14.6	-13.9	-13.2	-12.5	-11.8	-11.1	-10.4	-9.7	-9.0	-8.3	-7.6	-6.9	-6.2

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