

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 Plant Sciences, 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	-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	-3
64	-4	-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	-3
66	-4	-4	-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
68	-4.1	-4.1	-4	-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
70	-4.2	-4.1	-4.1	-4	-3.9	-3.8	-3.7	-3.7	-3.6	-3.5	-3.4	-3.3	-3.3	-3.2	-3.1	-3
72	-4.3	-4.2	-4.2	-4.1	-4	-3.9	-3.8	-3.7	-3.6	-3.6	-3.5	-3.4	-3.3	-3.2	-3.1	-3
74	-4.4	-4.3	-4.2	-4.2	-4.1	-4	-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	-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	-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	-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	-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	-4.8	-4.7	-4.5	-4.4	-4.3	-4.1	-4	-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	-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	-4.9	-4.7	-4.5	-4.4	-4.2	-4	-3.8	-3.7	-3.5	-3.3
96	-6.1	-5.9	-5.7	-5.6	-5.4	-5.2	-5	-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	-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	-3.8	-3.6	-3.4
102	-6.8	-6.6	-6.3	-6.1	-5.9	-5.7	-5.4	-5.2	-5	-4.8	-4.6	-4.3	-4.1	-3.9	-3.7	-3.4
104	-7	-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	-3.7	-3.5
106	-7.3	-7	-6.8	-6.5	-6.3	-6	-5.8	-5.5	-5.3	-5	-4.8	-4.5	-4.3	-4	-3.8	-3.5
108	-7.6	-7.3	-7	-6.8	-6.5	-6.2	-6	-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	-6.7	-6.4	-6.2	-5.9	-5.6	-5.3	-5	-4.7	-4.5	-4.2	-3.9	-3.6
112	-8.1	-7.8	-7.5	-7.2	-7	-6.7	-6.4	-6.1	-5.8	-5.5	-5.2	-4.9	-4.6	-4.3	-4	-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	-4.7	-4.4	-4	-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	-6.7	-6.3	-6	-5.6	-5.3	-4.9	-4.5	-4.2	-3.8
120	-9.5	-9.1	-8.8	-8.4	-8	-7.6	-7.3	-6.9	-6.5	-6.1	-5.8	-5.4	-5	-4.6	-4.3	-3.9

Common ranges of SWP under cool weather conditions

Common ranges of SWP under warm 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 **prune** trees under different conditions of air temperature and relative humidity

Table courtesy of Ken Shackel, Department of Plant Sciences, University of California Davis

Air Temp (°C)	Air Relative Humidity															
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
60	-6	-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	-5.9	-5.8	-5.7	-5.6	-5.5	-5.4	-5.2	-5.1	-5	-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	-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	-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	-4.9	-4.7	-4.6
72	-7	-6.8	-6.7	-6.5	-6.4	-6.2	-6	-5.9	-5.7	-5.5	-5.4	-5.2	-5.1	-4.9	-4.7	-4.6
74	-7.2	-7	-6.9	-6.7	-6.5	-6.3	-6.2	-6	-5.8	-5.6	-5.5	-5.3	-5.1	-5	-4.8	-4.6
76	-7.4	-7.2	-7	-6.9	-6.7	-6.5	-6.3	-6.1	-5.9	-5.8	-5.6	-5.4	-5.2	-5	-4.8	-4.7
78	-7.6	-7.4	-7.2	-7	-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	-6.8	-6.6	-6.4	-6.2	-6	-5.8	-5.6	-5.4	-5.1	-4.9	-4.7
82	-8.1	-7.9	-7.7	-7.5	-7.2	-7	-6.8	-6.6	-6.3	-6.1	-5.9	-5.7	-5.4	-5.2	-5	-4.8
84	-8.4	-8.2	-7.9	-7.7	-7.4	-7.2	-7	-6.7	-6.5	-6.2	-6	-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	-8.7	-8.4	-8.2	-7.9	-7.6	-7.4	-7.1	-6.8	-6.5	-6.3	-6	-5.7	-5.5	-5.2	-4.9
90	-9.3	-9	-8.7	-8.4	-8.1	-7.9	-7.6	-7.3	-7	-6.7	-6.4	-6.1	-5.8	-5.5	-5.3	-5
92	-9.6	-9.3	-9	-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
94	-10	-9.7	-9.3	-9	-8.7	-8.4	-8	-7.7	-7.4	-7	-6.7	-6.4	-6.1	-5.7	-5.4	-5.1
96	-10.4	-10	-9.7	-9.3	-9	-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	-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	-9.6	-9.2	-8.8	-8.4	-8	-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	-6.6	-6.2	-5.8	-5.4
104	-12.1	-11.6	-11.2	-10.7	-10.3	-9.9	-9.4	-9	-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	-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	-11.5	-11	-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	-12.5	-11.9	-11.4	-10.8	-10.2	-9.7	-9.1	-8.6	-8	-7.5	-6.9	-6.3	-5.8
114	-14.7	-14.2	-13.6	-13	-12.4	-11.8	-11.2	-10.6	-10	-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	-10.4	-9.7	-9.1	-8.5	-7.9	-7.2	-6.6	-6
118	-16	-15.4	-14.7	-14	-13.4	-12.7	-12	-11.4	-10.7	-10.1	-9.4	-8.7	-8.1	-7.4	-6.7	-6.1
120	-16.7	-16	-15.3	-14.6	-13.9	-13.2	-12.5	-11.8	-11.1	-10.4	-9.7	-9	-8.3	-7.6	-6.9	-6.2

Common ranges of SWP under cool weather conditions

Common ranges of SWP under warm weather conditions

Common ranges of SWP under hot weather conditions