

TIME OF YEAR

CROP COEFFICIENTS FOR MATURE ALMONDS

Northern Hemisphere	Southern Hemisphere	Doorenbos and Pruitt (1977)	Fereres and Puech (1981)	Goldhamer (1996)	Ayars et al (2003)	Girona (2006)	Goldhamer (2012)	Sanden (2007)	Doll and Shackel (2015)
Jan	July							0.40	0.40
Feb	August							0.40	0.41
Mar 1-15	Sept 1-15	0.50	0.60		0.28	0.40	0.20	0.55	0.55
Mar 16-31	Sept 16-30	0.50	0.60	0.54	0.28	0.40	0.20	0.68	0.67
April 1-15	Oct 1-15	0.75	0.71	0.60	0.48	0.65	0.67	0.75	0.75
April 16-30	Oct 16-31	0.75	0.71	0.66	0.48	0.65	0.67	0.82	0.84
May 1-15	Nov 1-15	0.90	0.84	0.73	0.68	0.80	0.95	0.88	0.89
May 16-31	Nov 16-30	0.90	0.81	0.79	0.68	0.80	0.95	0.95	0.98
June 1-15	Dec 1-15	0.95	0.92	0.84	0.88	0.92	1.09	1.00	1.02
June 16-30	Dec 16-31	0.95	0.92	0.86	0.88	0.92	1.09	1.04	1.07
July	Jan	0.95	0.96	0.93	1.06	0.96	1.15	1.08	1.11
August	Feb	0.95	0.96	0.94	1.06	1.05	1.17	1.08	1.11
Sept 1-15	Mar 1-15	0.85	0.91	0.94	1.06	0.85	1.12	1.04	1.08
Sept 16-30	Mar 16-31	0.85	0.91	0.91	1.06	0.85	1.12	1.01	1.04
Oct 1-15	April 1-15	0.80	0.79	0.85	0.90	0.60	0.85	0.92	0.96
Oct 16-31	April 16-30	0.80	0.79	0.79	0.90	0.60	0.85	0.85	0.88
Nov	May	0.70		0.70		0.40		0.65	0.69
Dec	June							0.40	0.43
METHOD:		Water Balance	Water Balance	Water Balance	Water Balance	Water Balance	Water Balance	Water Balance	Eddy Covariance

References for Crop Coefficients:

[Doorenbos and Pruitt \(1977\). FAO 24: Irrigation and Drainage Paper.](#)

Fereres, E. and Puech, I. 1981. Irrigation scheduling guide. California Department of Water Resources, Sacramento, CA.

Goldhamer, D. 1996. 'Irrigation Scheduling' in: Micke, W. The Almond Production Manual. University of California Division of Agriculture and Natural Resources, Oakland, CA.

Ayars, J.E., Johnson, R. S., Phene, C.J., Clark, D.A. & Mead, R.M. 2003. Water use by drip irrigated late season peaches. Irrigation Science 22: 187-194.

Girona, J. 2006. La respuesta del cultivo del almendron al riego. Vida Rural 234, 12-16.

[Goldhamer, D. and Girona, J. 2012. FAO 66: Crop yield response to water.](#)

[Sanden, B. 2012. Kern Soil and Water.](#)

[Doll, D. and Shackel, K. 2015. Drought management for California almonds.](#)

Chart compiled by David Doll, March, 2020