Water: Almond productivity during deficit

Dave Monks, Cathy Taylor and Karl Sommer

Growing almonds using ‘best irrigation management practice’ is critical in times of drought and restricted water allocations.

Planned irrigation deficits is one way of coping in such times.
Different ways of applying a deficit were tested at Lake Powell near Robinvale:

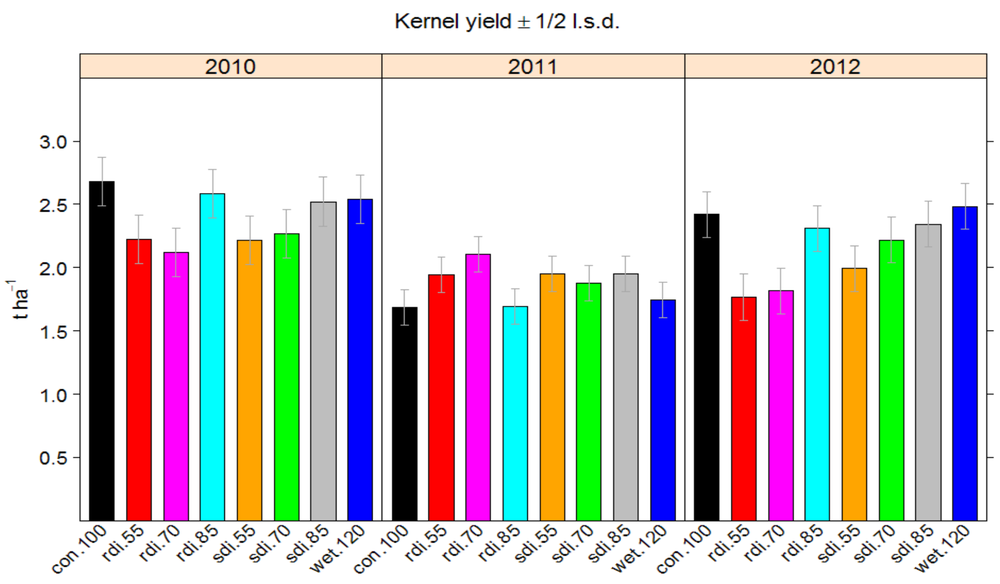
- Regulated - during the weeks leading up to harvest, and
- Sustained - throughout the season.

Irrigating at 85% or more of normal water requirements, regardless of method, had no impact on kernel size or yield.

Supplying only 70%, of normal requirements sustained throughout the season, had no negative impact on kernel size or yield in the third season.

Irrigation treatments, irrigation volumes and timing of deficit applications.
Irrigation applied 1 August to 30 April for each year.

Treatment	Irrigation (mm)*			Deficit timing
	2010	2011	2012	
Wet	1131	933	1296	-
Control	937	781	1082	-
Sustained 85%	806	677	916	All season
70%	694	578	759	All season
55%	534	476	686	All season
Regulated 85%	836	668	959	10 Jan-17 Feb
70%	664	508	763	12 Nov-17 Feb
55%	552	488	663	10 Sep-17 Feb
Effective rainfall	184	214	40	
ET_o	1435	1089	1324	



Effect of irrigation treatments on kernel yield, 2009-10, 2010-11 and 2011-12 seasons.

Accessibility

If you would like to receive this publication in an accessible format, please telephone DEDJTR, Agriculture Research and Development’s Dr Dave Monks on 03 5051 4500.

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