Water requirements of avocado in Israel. II.* Influence on yield, fruit growth and oil content

E Lahav and D Kalmar

Abstract
The effect of four different irrigation intervals, 7, 14, 21 and 28 days, on the avocado tree was tested during the years 1968–1974 in the northern coastal plain of Israel. The respective average annual water applications were 8890, 7450, 6680 and 5940 m3/ha. The cultivars Ettinger, Fuerte and Hass were tested in five replications in randomized blocks. After 6 years no significant reduction in yield was observed with Ettinger or Fuerte trees irrigated once in 21 or 28 days. With the Hass cultivar the 28-day interval gave lower yields than with the three other intervals tested. Shortening of irrigation intervals increased the growth rate and size of individual fruits, which may be of economic importance for cv. Hass, where overproduction leads to small fruits unsuitable for export. Shortening of irrigation intervals tended to increase the oil percentage of the fruit, which may advance the harvest date. In view of the equal yields obtained and the predominance of cv. Hass in avocado plantations, it was concluded that the 21-day interval was the optimum irrigation frequency under the experimental conditions. _____ *Part I, *Aust. J. Agric. Res.*, 28: 859 (1977).

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