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George, A.P., Nissen, R.J., Broadley, R.H. and Collins, R.J. 2003. Improving the Nutritional Management of Non-Astringent Persimmon in Subtropical Australia. Acta Hort. (ISHS) 601:131-138
http://www.actahort.org/books/601/601_17.htm

ISHS Acta Horticulturae 601: II International Persimmon Symposium

The full text is available to subscribers.

Abstract

A series of experiments was conducted to evaluate the nutritional requirements of non-astringent persimmon in subtropical Australia. Three rates two times of application of the two major nutrients, N and K, were evaluated for two different soil types in south-east Queensland. Nitrogen and K were shown to be key manipulators of productivity. At both low (<40 kg per hectare) and high (>100 kg per hectare) annual rates of N, the total number of fruit per tree was reduced due to adverse effects on fruit set and increased fruit drop. With potassium, average fruit weight and yield increased with increasing rates of K applied up to 80 kg per hectare, and much more slowly thereafter. Multiple, sequential foliar applications of Ca were shown to increase leaf Ca concentrations by 20%, improve fruit firmness and storage life. A benchmarking survey of leading orchards was also undertaken to document current nutritional practices, and to determine if there was a relationship between leaf nutrient concentrations with productivity. Salinity was a major problem in some production regions; and at leaf CI concentrations above 0.8%, yield was severely reduced. Based on these studies, a new, narrower range of leaf nutrient standards at both fruit set and one month prior to harvest is being developed.