

## **Abstract**

Shoots with an intermediate size of kiwifruit, cv. Hayward, were terminated to five leaves and long shoots were topped or left unpruned at 2 days after petal drop. Fruit on the vines were either untreated or given an additional treatment of 1% calcium chloride ( $\text{CaCl}_2$ ), four times during fruit development. Flesh firmness, soluble solids content (SSC) and calcium (Ca) content in the fruit pericarp, were measured in fruit harvested from small, medium and long shoots. Fruit were stored at 0 °C for up to 42 weeks. Low temperature breakdown (LTB) incidence was assessed after 5 days of ripening at 20 °C.

Summer-pruning increased fruit SSC and Ca content by 0.5 and 30%, respectively, while  $\text{CaCl}_2$  sprays increased the fruit Ca content and firmness by 64 and 13 N, respectively. Fruit harvested from small, medium or long shoots had similar SSC and firmness at harvest and during storage, and Ca content at harvest. During storage, fruit receiving  $\text{CaCl}_2$  sprays, or both  $\text{CaCl}_2$  sprays and summer-pruning, softened more slowly, increasing storage life potential by 10–12 weeks, compared with untreated fruit. Summer-pruning did not affect fruit potential storability. Lower LTB incidence occurred in fruit from summer-pruning, preharvest  $\text{CaCl}_2$  spray treatments, or when both treatments were applied. Less LTB occurred in fruit from short shoots compared with those harvested from medium and long shoots.