

Title Storage of 'Italia' grape submitted at calcium application. I. Weight loss, physico-chemicals changes and calcium content.

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Abstract

The effect of pre-harvest calcium treatment on the storage quality of grape cv. Italia was evaluated in Petrolina, Pernambuco, Brazil, in 1998. Calcium was applied by immersing the bunches in 0 and 1.5% CaCl₂ solution for 10 seconds at the initial phase of colour change and softening of berries. Grapes were stored under refrigerated conditions (3.3-3.6 deg C and 87-99% relative humidity) and evaluated at 14-day intervals until day 70. Weight loss, total soluble solids (TSS), total titratable acidity (TTA), TSS/TTA ratio, pH and total soluble and insoluble calcium content in the rachis and berry were analysed. Weight loss increased during storage. Treatment with calcium decreased TSS, pH, and TSS/TTA ratio, and increased the TTA and calcium content in the rachis and berry. The storage life of the grapes was approx equal to 56 days.