

Investigation the role of CaCl_2 on flesh firmness and quality characteristics of Red delicious apple cv.

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This study was done in an experimental orchard in Golmakan, Khorasan province on a range of Red delicious apple trees and the effect of concentration and date of CaCl_2 spraying on quality and control of disorders in apple were studied. Different concentrations were 0,0.5, 1, 1.5 percent of CaCl_2 and each concentration was done for 2,4,6 times with 4 replicates.

Leaf sampling was done in July and concentration of elements (N, P, K, ca, Mg, Fe, Mn, Zn, Cu, B) were measured in the lab. The fruits were harvested in the late summer and the quality tests (Starch, Bx, acidity, PH and flesh firmness) and complete tests of elements were done.

All the treatments were transferred to a cold storage with 0 degrees centigrade and 90 percent humidity and stored for 5 months . Quality tests were done each months and the fruits removed from the cold storage in March and quality tests and organoleptic tests were done. The results were analyzed by split plot factorial design. The results showed that 6 times spraying by 1% CaCl_2 caused better quality characteristics.