Title The influence of calcium treatment on *Ziziphus spp.* fruit quality

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Abstract

Cultivation of Jujube, as a fruit tree has been recommended in tropical and sub tropical areas of the world. However harvesting time will affect the appropriate shelf storage of this crop, the appearance and quality of the fruit changes seriously after the harvest. It is of a great concern of the producers to apply any kind of methods that could increase the shelf life of the fruit, without any changes in its taste, aroma and appearance and also to reduce the post harvest disorders. Since it has been reported that using Calcium components can be effective on firmness of different kinds of fruits, an experiment was carried out as factorial in the form of complete random blocks. Treatments include Calcium components (Calcium Chloride, Calcium Nitrate) and concentration (0, 1%,2%, & 4%). Features such as fruit dry and fresh weight, water content, brown spots present, vitamin C, acidity, astringency, sugar, density, Calcium level, fruit flesh diameter, fruit flesh color and fruit skin color were examined in this study. The results revealed that treatment with Calcium combination would reduce brown spots appearance on fruit surface and the astringency of fruit texture, and would increase Calcium level in fruit flesh. Among the treatments Calcium Nitrate (4%) improved fruit characteristics and it could be applied as an appropriate method for preserving fruit qualifications and keeping the firmness of fruit texture during storage.