ABSTRACT

THE IMPACT OF ELECTROSTATIC INDUCTION ON STORAGE TIME AND STRENGHT OF PLUMS

Yüksel AYDOĞAN

Ph.D. Thesis, Department of Agricultural Machinery Supervisor: Prof. Dr. M. Bülent COŞKUN 2013, 102 pages

In our country, with a total of 2011 data is the production of 270,000 tons of plums in fruit production plays an important role. In general, studies relating to the preservation of fruits in Turkey, hard-core, soft-core studies relating to the preservation of fruit and then taken into account. Therefore, studies on stone fruit species should be increased after the harvest. In this study, utilizing electrostatic storage system and the strength of the intended duration of storage of green plums. Electrostatic storage system, pre-production testing and calibration performed after the conditioned as room conditions were ready to give it a try. Trials + and electric charges categories -1, -2, -3, 1, 2, 3-volt values and 2-4-6 carried out and daily time frames to the evaluation samples obtained results were. The data obtained from plums color changes, weight loss, hardness, amount of carbon dioxide and ethylene, were to changes in humidity and statistical analysis of the results were evaluated.

According to the findings of the application of static electricity from +3 V fruit hardness values 33.26 N came to the fore end of the six days. Evaluation of the amount of sugar in the application of 5.54% to +3 V gave the best results. +2 and +3 V static electricity conservation practices color brightness value was 49.21 and 49.25. The best result in terms of the amount of ethylene production was realized with 3 ppm +3 V application. +3 V voltage application with the direction of the production of carbon dioxide, the best results were obtained when the direction of the storage features.

Key words: Plumb, storage, static electric.