ABSTRACT

RESEARCH ON THE CHANGE OF FRUIT QUALITY CHARACTERISTICS OF CHESTNUTS (*Castanea sativa* Mill.) IN PRE-HARVEST AND POST-HARVEST PERIOD

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Traditional storage and cold storage room have been used in this trial, which was performed in order to exhibit and compare the changes in fruit quality properties of chestnuts during the pre-harvest, harvest and post-harvest terms. In this trial, which has been set up on Year 2010 harvest season, during pre-harvest, harvest and post-harvest storages, physical and biochemical analyses have been performed with fruit samples taken approximately once in every two weeks, between the beginning of September and the end of December. For that purpose, fruit sizes (width, length, height, fruit index), peel and pulp colors (L*, a*, b*, *hue*, *chroma*), water activity (aw) and amounts of total sugar, starch and carbohydrates (%). amount of tannin (%), amounts of aflatoxin B1, B2, G1, G2, total aflatoxins (ppb) have been detected. With storage in traditional and cold storage rooms, it has been observed that total amount of sugar (%) in chestnuts has increased whereas total amount of starch (%) has declined. In addition to this, aflotoxin contamination could be observed in chestnuts in the event of elongation of storage period depending on the type of storage.

Keywords: Chestnut, harvest, storage, quality, biochemical