

## Measurement of soluble tannins and evaluation of consumer acceptance of persimmon fruit cv. Karaj after destringency treatments.

Mostofi, Y. <sup>1</sup>\*, Zamani, Z. <sup>1</sup>, Fatahi Moghadam, M. R. <sup>2</sup>, Khademi, O. <sup>3</sup>

1- Assoc. Prof., Department of Horticultural Sciences, University Collage of Agriculture and Natural Resources, University of Tehran. Karaj, Iran.

2- Assist. Prof., Department of Horticultural Sciences, University Collage of Agriculture and Natural Resources, University of Tehran. Karaj, Iran.

3- Ph.D. Student, Department of Horticultural Sciences, University Collage of Agriculture and Natural Resources, University of Tehran, Karaj, Iran.

Fruit of most persimmon cultivars are unpalatable at harvest time and it is necessary to remove the astringency by special treatments. Astringency removal treatments of persimmon in this study, spray of 36% ethanol on fruits or maintaining them in CO<sub>2</sub> enriched atmosphere, reduced soluble tannins concentration of fruits below the critical concentration that results in astringency taste (1000 ppm). According to Panel Test, the lowest astringent taste resulted from CO<sub>2</sub> and 7.5 ml ethanol treatments. On the other hand, according to panel tester opinions there was no significant difference between astringency removal treatments on color index and desirable flesh firmness. However, astringency removed fruits had a higher quality and marketability compared to the commercial and control fruits. According to panel test, in comparison of two soluble tannins concentration assays, protein precipitation method, contrary to Folin Denis method, determined soluble tannins concentration lower than the actual amount, and therefore, protein precipitation method is not a suitable assay for determination of soluble tannins concentration in persimmon fruit.

**Key words:** Soluble tannins destringency treatments, Folin Denis method, Protein precipitation method, Panel test.

---

\*Corresponding Author E-Mail address: [ymostofi@ut.ac.ir](mailto:ymostofi@ut.ac.ir)