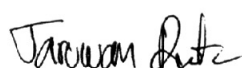



Jaruwan Patrasanpetch 2006: Development of Fruit Leather Product from Persimmon (*Diospyros kaki* L.) Puree. Master of Science (Agro-Industrial Product Development), Major Field: Agro-Industrial Product Development, Department of Product Development. Thesis Advisor: Assistant Professor Phaisan Wuttijumnong, Ph.D. 117 pages.
ISBN 974 -16-2546-4

The effects of pH (3.5-4.5) and heating time at 85°C (1-5min) on colorimetric parameters include L*, a*, b*, C*, h and color difference (ΔE) of persimmon (P2 variety) puree were carried out. The results showed that the L* value at pH 3.5 increased with heating time, but a*, b* and C* decreased whereas h values was unaffected. At pH 4.0 and 4.5, L*, b*, C* and h increased with heating time, but a* decreased. The treatment of pH value was 3.5 and heating time for 1 minute at 85 °C had relatively pale yellow color and the lowest of ΔE value. The puree preserved by sous vide process (70 °C, 10-20 min / 80 °C, 5-10 min / 90 °C, 2-5 min) indicated a little change in the puree's color. Higher temperature and longer period of heating caused segregation of the pulp. During storage at 4 °C for 60 days, the L*, b*, C* and h value decreased as storage time increased. However, there were no microbial growth and total count, as well as, yeast and mold count lower than 10 CFU/g.

The effects of amount of water (5-15 %) and glucose syrup (0-10 %) on texture and sensory qualities of fruit leather prepared from persimmon puree were investigated. It was found that an increase in amount of glucose syrup resulted in an increase in softness and a bright orange-red color and a decrease in astringency taste, as well as, an increase in liking score. The optimum formula of fruit leather from persimmon puree consisted of water, sugar, glucose syrup and salt 14.5 %, 14.5 %, 4.5 % and 0.15 %, respectively. The developed persimmon leather was accepted by 78.5 % of the consumers with slight liking score (6.3-6.8) for all attributes.



Student's signature



Thesis Advisor's signature

30 / 06 / 2006