

Abstract

Research Title : The use of rice starch as a thickener in tangerine juice and pineapple juice for elderly people

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The study of thicken tangerine and pineapple juice for elderly people has the objective to study the effect of addition of rice starches into tangerine and pineapple juice using Brookfield viscometer and sensory tests. Freshly hand squeezed fruit juice (100%) and fruit juice boxes were filtered through a cheesecloth, mixed with rice starch, heated at 95°C for 5 min and chilled at 5°C or 25°C before viscosity measurement and sensory tested by panelist. Hom Mali 105 rice has the potential to produce cold water swelling starch since it has the highest cold water swelling power compared with other rice varieties. Rice starches have cold water swelling power in the range 16-45%. In general, viscosity of thicken tangerine juice with rice starches was in the consistency range of Honey-like (351-1750 cP) except Suphanburi 60 and Suphanburi 90 rice starch that have the viscosity in the consistency range of Spoon-thick (>1750 cP). Freshly squeezed tangerine juice (TF), tangerine juice box (TB), freshly squeezed pineapple juice (PF), and pineapple juice box (PB) were mixed with Hom Mali rice starch at concentration 1% (w/v) and tested by panelist. From the sensory test results, elderly people liked thicken pineapple juice more than thicken tangerine juice. Thicken fruit juice with rice starch was more opaque and has a more starchy flavour than unthicken juice. Panelist felt stuck in the throat during drinking thicken fruit juice. Those are the limitations of the addition of rice starch in fruit juice. The researcher has been trying to adjust texture of thicken fruit juice that would be more acceptable to elderly people.