Title Sapodilla staining with natural dyes extracted from curcumin and roselle to replace a synthetic dye

Author Apita Bunsiri, Charoen Kunprom, Somnuk Thongbor, Yupin Onsiri and Phitsanu Bunsiril

Citation Agricultural Science Journal, Vol. 38 No.5 (Suppl.) 2007. p 41-44.

Keywords curcumin; roselle; staining; spodilla

Abstract

Four dyes: synthetic dye, curcumin-extracted dye, roselle-extracted dye and mixed dye between curcumin- and roselle-extracted dyes were used to stain sapodilla fruit. The results showed that L, a, b, C and ^{o}H of sapodilla stained with synthetic dyes were not different from those stained with curucmin-extracted dye. There were no significantly differences of TSS, TA, TSS/TA, pulp score, sweetness score, astringency score, softening score, off-flavor score, tasting preference score, defect score and bruising score in all treatments. It was found that glossy score of sapodilla stained with synthetic, curcumin-extracted and mixed dyes evaluated by consumers was not significantly different. However, sapodilla stained with curcumin-extracted dye tended to have the highest glossy score. The beautiful and characteristic preference scores of unstained sapodilla were not different from those of fruit stained with curcumin-extracted and mixed dyes but higher than those of fruit stained with roselle-extracted dye. After gardeners evaluation, the results revealed that sapodilla stained with synthetic dye was not significantly different from those stained with curcumin-extracted dye, but higher than those unstained and stained with mixed and roselle-extracted dyes.