

# Variation of total and reducing sugars, total phenols and total anthocyanins in custard apple (*Annona reticulata*) during three

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Acta Horticulturae 1044: 147-151. (2014)

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## Abstract

The changes of total and reducing sugars, total phenolics, and anthocyanins in custard apple (*Annona reticulata*) fruits during “on tree” ripening were assessed. Three ripening stages were considered. Reducing sugars increased from 11.98 mg/g fresh weight in stage 1 to 17.88 mg/g fresh weight in stage 2, and then decreased to 15.35 mg/g fresh weight in stage 3. Total sugars decreased from 21.26 mg/g fresh weight to 19.92 mg/g fresh weight in stage 2, and then increased to 20.56 mg/g fresh weight in stage 3. Total phenolics increased slightly in the skin from 12.31 mg/g fresh weight in stage 1 to 18.71 mg/g fresh weight in stage 2; and decreased to 14.16 mg/g fresh weight in stage 3. A similar trend was observed with total phenolics in the pulp. The concentrations varied from 4.06 mg/g fresh weight in stage 3 to a high of 9.83 mg/g fresh weight in stage 2. Anthocyanins in the pulp decreased progressively and varied from 0.77 in stage 3 and 1.83  $\mu\text{g/g}$  fresh weight in stage 1. However, anthocyanins in the skin decreased from 8.64 in stage 1 to 2.09  $\mu\text{g/g}$  fresh weight in stage 2, then increased to 11.39  $\mu\text{g/g}$  fresh weight in stage 3.