

Variation of reducing and total sugars, total phenols and chlorophylls in soursop (*Annona muricata*) during three "on tree" ripening stages

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Acta Horticulturae 1044: 153-158. (2014)

The changes of total and reducing sugars, total phenolics, and chlorophylls in soursop (*Annona muricata*) fruits during "on tree" ripening were assessed. Three ripening stages were considered. Reducing sugars increased progressively during the three stages in the pulp of the fruit, and varied from 8.54 to 26.66 mg/g fresh weight. In the skin, the reducing sugars increased from 9.26 in stage 1 to 19.32 mg/g fresh weight in stage 2; then decreased slightly to 17.32 mg/g fresh weight in stage 3. For total sugars, the concentration increased progressively and varied from 17.68 mg/g fresh weight at stage 1 to 42.17 mg/g fresh weight at stage 3. Total phenolics increased significantly in the skin and pulp of the fruit. Total phenolics varied from 9.23 to 18.78 $\mu\text{g/g}$ fresh weight in the skin, and from 4.93 to 13.57 $\mu\text{g/g}$ fresh weight from stage 1 to stage 3, respectively. However, chlorophylls in the skin slightly decreased then increased; varying from 4.24 $\mu\text{g/g}$ fresh weight in stage 1 to 3.42 $\mu\text{g/g}$ fresh weight in stage 2 to 7.37 $\mu\text{g/g}$ fresh weight in stage 3. In the pulp, chlorophylls increased then decreased; varying from 10.43 $\mu\text{g/g}$ fresh weight in stage 1 to 15.36 $\mu\text{g/g}$ fresh weight in stage 2 to 13.53 $\mu\text{g/g}$ fresh weight in stage 3.