

**Title** Variation of saccharides and fructo-oligosaccharides (FOS) in Carambola (*Averrhoa carambola*) and June Plum (*Spondias dulcis*) during ripening stages

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#### Abstract

The changes in glucose, fructose, sucrose, and fructo-oligosaccharides (FOS) (1-kestose and nystose) of carambola (*Averrhoa carambola*) and june plum (*Spondias dulcis*) were assessed during three ripening stages. Glucose and fructose showed similar pattern by decreasing slightly during stage 2 but increased during stage 3, in both carambola and june plum, while sucrose decreased during the ripening stages of both fruits. Total saccharides showed similar pattern to those of glucose and fructose with a decrease during stage 2 and an increase during stage 3. Surprisingly, two fructooligosaccharides, namely 1-kestose (G-F2, 1F- $\beta$ -D-fructofuranosylsucrose) and nystose ([G-F3, 1F(1- $\beta$ -Dfructofuranosyl)<sub>2</sub> sucrose]) were detected in these two fruits. The variation of these two polymers showed similar patter to that of glucose and fructose, with a decrease during stage 2 and an increase during stage 3. However, the content of these two FOS was low in comparison with the content of the saccharides.