Title Changes in starch and soluble sugar concentrations in winter squash mesocarp during storage at different temperatures

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Abstract

The effects of storage at 5, 10 or 15 °C for 6 months on the concentrations of starch and soluble sugar in winter squash (*Cucurbita maxima* Duch.) cultivar 'TC2A' fruits were examined. Starch contents were significantly lower at 15 °C than at the other temperatures, although concentrations decreased throughout the storage period at all temperatures. Total soluble sugar contents increased during the first 3 months of storage regardless of temperature, and decreased at 5 °C or 15 °C, but not at 10 °C after 6 months. *Myo*-inositol and raffinose concentration patterns were more complex, and may reflect some role in regulating fruit metabolism during storage that may be important in maintaining overall squashfruit quality.