

ABSTRACT

A series of experiments was performed to obtain information concerning the effects of different processing temperatures (70° and 80°C), the effects of varying levels of concentration (2:1, 3:1 and 4:1), the effects of varying storage temperatures (-21°C and 28°C), and the effect of time and different storage atmospheres (N₂, CO₂ and Air), on the changes in properties on concentration and storage of settled West Indian Lime Juice *C. aurantifolia*.

Concentrates held at -21°C showed significantly higher levels of ascorbic acid, light transmittance, °Brix, titratable acidity and amino-nitrogen than did concentrates in glass bottles stored at 28°C in cardboard boxes.

The retention of juice properties was found to be significantly greater in the less concentrated samples. N₂ and CO₂ were significantly better than air in maintaining juice properties. N₂ was found to be superior at higher processing temperature to all other treatments used at the 2:1 concentrate level.

Higher processing temperature and shorter contact time resulted in better maintenance of juice quality than lower processing temperatures. Changes in juice properties appeared to be consistent with time. Concentration and storage resulted in an increase in amino-nitrogen and glucose content of stored samples.

The addition of the initial five per cent flavouring condensate to concentrate resulted in maintenance of juice flavour.