Title	Residual effect of atomised water vapour treatment on carbohydrate metabolism during ripening of cv "Fino de Jete" cherimoya fruit
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Abstract

Atomised hot water vapour at between 46 and 54 °C for 60 min was tested as a method of delaying ripening and extending shelf life in cv "Fino de Jete" cherimoya fruit (*Annona cherimola* Mill.). Heat treatment at 46 °C stimulated the respiration rate and starch degradation, induced ethylene production, increased the accumulation of soluble sugars and α-amylase activity, and moved the onset of ethylene production (OEP) forward. Treatment at 50 °C, and especially at 52 °C, delayed the climacteric peak and the OEP, decreased sugar and organic acid accumulation, and reduced α-amylase and invertase activity. The results obtained indicate that temperatures higher than 48 °C slowed physiological processes and carbohydrate metabolism and extend the shelf life of the cherimoya fruits, while temperatures higher than 52 °C blocked ripening irreversibly.

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