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Preservation of *Mangifera indica Var Kent* mango grown in the Democratic Republic of Congo by oven-drying and freeze-drying methods

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ABSTRACT
Objective: The present investigation concerns the preservation by freeze-drying of mango of one of the Kent varieties grown in the Democratic Republic of the Congo.
Methodology and Results: The mangoes used were harvested from the same tree and picked at three degrees of ripeness. The mango pulp was cut into 5-8 mm slices and oven-dried at 50 °C for approximately 24 h before being ground and sieved to obtain a powder for analysis. The Kjeldahl method was used for protein determination, the fluorescence-X method (Spectrometer ED-XRF Xepos III) for elemental analysis, and Soxhlet extraction method with petroleum ether to extract lipids. Ash content was determined gravimetrically by calcining the sample at 600 °C for 4 h using a muffle furnace. Vitamins A and C were determined by spectrophotometry and titrimetric methods, respectively. The results obtained show that freeze-drying enables mango to be preserved for over six months without any noticeable variation in their physicochemical parameters.
Conclusion and application of results: Freeze-dried mango powder thus opens up the possibility of its valorisation as a food ingredient and additive for infant porridges and food for the elderly.
Key words: *Mangifera indica,* freeze-drying, chemical composition, preservation.