

CHANGES IN THE KEY ODOUR-ACTIVE COMPOUNDS AND SENSORY PROFILE OF CASHEW APPLE JUICE DURING PROCESSING

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The appeal of natural cashew apple juice is attributed to its exotic flavour, but the concentrated juice lacks most of the aroma volatiles, which are lost or changed during the processing steps. The volatiles composition of cashew apples from a specific genetic material (clone CCP76) was already assessed in previous work (1) as well as the volatile profile of commercial cashew apple nectars (2). In this experiment samples of cashew juice, extracted from common cashew apples, were collected in an industrial plant in order to monitor the juice key odour-active compounds at three different processing steps: extraction, pasteurization and concentration. The results were compared with sensory descriptive analysis performed by a trained panel. The assessors developed a vocabulary of 15 aroma and flavour descriptors and then evaluated the samples rating the intensity of each descriptive term on a 9 cm scale in triplicate and using blind tests. Volatile compounds were isolated by dynamic headspace technique and analysed by GC-MS and Osme time-intensity GC-O method (3, 4). Results were submitted to multivariate correlation analysis. Pasteurization did not change very much the perception of cashew-like compounds, but did reduce compounds contributing to sweet, fruity, floral and green notes. Pasteurized juice showed reduced fresh fruit characteristic flavour and a moderate cooked flavour. Evaporation, in its turn, drastically reduced key compounds while concentrated others, like occurred to methyl 3-methylvalerate, described as artificial and sickly sweet, yielding a juice that presented no more the characteristic flavour of the fresh cashew apple juice.

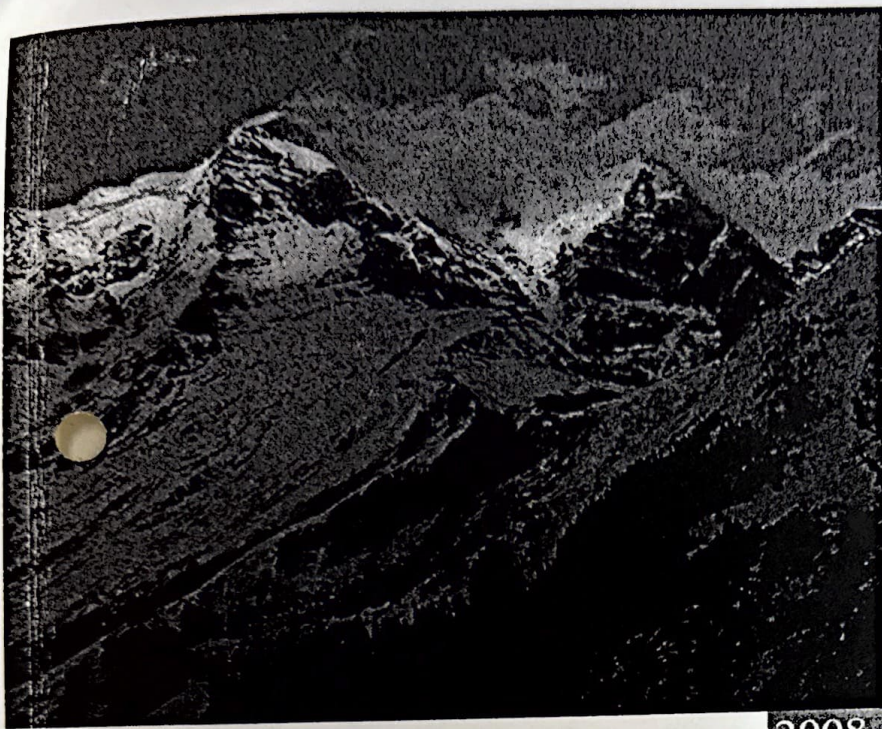
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