

Title Aroma profiles of pineapple fruit (*Ananas comosus* [L.] Merr.) and pineapple products
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 compounds

Abstract

The flavour profile of juices made from fresh-cut pineapple fruits ($n=19$; Costa Rica, Ghana, Honduras, Ivory Coast, Philippines, La Réunion, South Africa, Thailand) was studied in comparison to that of commercial water phases/recovery aromas ($n=16$), juice concentrates ($n=10$) as well as commercially available juices ($n=17$). In addition, pineapple jams ($n=6$; market samples) were investigated. HRGC-MS analysis of juices made from fresh-cut fruit revealed the known prevalence of esters, with methyl 2-methylbutanoate, methyl 3-(methylthio)-propanoate, methyl butanoate, methyl hexanoate, ethyl hexanoate and ethyl 3-(methylthio)-propanoate, as well as 2,5-dimethyl-4-methoxy-3(2H)-furanone (mesifurane) and 2,5-dimethyl-4-hydroxy-3(2H)-furanone (furanol) as major constituents. A corresponding flavour profile was rarely found in water phases/recovery aromas under study. In most cases, the characteristic methyl esters and hydroxy or acetoxy esters were lacking completely or appeared only in minor amounts in these products. Whereas a few of the commercial single strength juices revealed fruit-related flavour profiles, juices produced from concentrates mostly exhibited a flavour composition similar to that of concentrates, i.e. they were predominantly determined by their contents of furaneol and did not show the fruit-related ester distribution. Similarly, the jams under study were poor in typical pineapple constituents.