Title Comparison of volatile compounds between fresh and burnt aromatic coconut

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Abstract

Aromatic coconut stereotyped as one of the most noticeable tropical plant, performs very pleasant aroma and flavour in the water and flesh, especially at young stages. The aroma volatile profiles of flesh and water of aromatic young coconut were compared between fresh and burnt using gas chromatography mass spectrophotometry. Diethyl ether: n-pentane (1:1) was used as solvent to extract the volatiles. 2-methyl-1-butanol acetate, nonane and butylated hydroxytoluene were found to be main compounds in all water and flesh both fresh and burnt. 2,4,6-trimethyl-decane, dodecanoic acid, hexatriacontane were produced in water after burning. Several organic acid and pentadecanoic acid ethyl ester were found only in flesh whereas (E)-9-octadecenoic acid, 2-hydroxy-cyclopentadecanone, octanoic acid ethyl ester and decanoic acid ethyl ester were produced in flesh after burning. Consequently, heat processing generates some new volatiles in both water and flesh of coconut.