

ANALYSIS OF MAJOR FATTY ACIDS IN VARIOUS TEA CLONES

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Among the 300 odd volatile compounds found in the aroma complex, Trans-2-Hexenal and Hexenal are two of the important volatile compounds that contribute to the determination of quality of black tea. These two compounds are formed by the enzyme degradation of Linolenic acid and Linoleic acid during the manufacture of black tea⁽¹⁾. Although Trans-2-Hexenal and Hexenal are detrimental to flavour, their esters such as cis-3-Hexenyl trans-2-hexenate and hexyl butyrate⁽²⁾ (which are formed during the black tea manufacture) positively contribute to the overall flavour of black tea.

Due to the major role that the above two fatty acids play in bringing out some of the flavour characteristics in made tea, a study was undertaken to investigate the existence of any relationship between the quality (high and low) of a range of well known clones and these fatty acids. Results indicate no significant relationship exist. However it was interesting to note that in all clones investigated Linolenic acid was found to be the most abundant while Linoleic Acid was about half the concentration that of Linolenic Acid.

References:

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