Aroma and flavour characteristics are the primary determining factors for assessing the quality of mango fruit, which varies considerably amongst the varieties. The components contributing to the flavour of mango varieties were chemically evaluated. Aroma concentrates of ripe mangoes viz., Alphonso, Langra and Totapuri were isolated by high vacuum distillation of the pulp and were analysed by gas chromatographic techniques. The aromatic principles of ripe mango were essentially composed of terpenes, esters, alcohols, aldehydes and lactones. However, the relative concentration of the components caused subtle differences in the sensory attributes of these mango varieties. The green mango aroma in Alphonso and Totapuri was found to be due to cis-ocimene and β-myrcene respectively.

The relative content of palmitic and palmitoleic acid in mango pulp was found to determine the flavour quality of the fruit. The involvement of fatty acids in the biogenesis of lactones in ripening mango (var. Alphonso) was investigated with the aid of 2-14C-acetate and 1-14C-palmitic acid. It was observed that 2-14C-incorporation was maximal into palmitic acid, while radioactivity of 1-14C-palmitic acid could be recovered essentially in the hydroxy fatty acid fraction.

The involvement of pyruvate decarboxylase was shown in the formation of acetaldehyde imparting the fruity aroma note in ripening mango (var. Alphonso).