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## Comparison of Methodologies for the Identification of Aroma Compounds in Strawberry

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**Abstract:** Three strawberry (*Fragaria x ananassa*. Duch.) varieties commercially grown in Israel (Tamar, Yael and Malach) were studied for their volatile compositions. Two techniques were compared: headspace solid phase micro extraction (HS-SPME) and liquid-liquid extraction (organic solvent: tert-butyl methyl ether) by gas chromatography/mass spectrometry (GC/MS). The influences of techniques on the volatile compounds were tested by comparing the volatiles determined in the 3 varieties. Malach, the most aromatic variety, accumulates high levels of furanones and esters compared to the other varieties. Differences in the aroma profiles obtained by utilizing different techniques were noted. HS-SPME was more suitable for the determination of very volatile and non-polar esters, while liquid extraction was more appropriate for the determination of the polar and less volatile furanones.

**Key Words:** Strawberry, volatiles, aroma, SPME, GC/MS

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