Poster #2 — Agilent Technologies

## A Blind Study of Pesticide Residues in Spiked and Un-spiked Fruit Extracts Using Deconvolution Software (poster)

6 samples of fruit extracts, supplied in 90 / 10 Iso-octane/ Toluene solvent were received for analysis by GC-MS. The samples had been prepared by an accredited food pesticide laboratory based in Scandinavia. 3 of the samples were spiked with a number of pesticides at varying concentration levels. Although the range of concentrations of the pesticides in each sample were given, neither the actual number of pesticides spiked in to each control sample nor the identities were supplied. The other 3 samples were 'real', unspiked extracts.

The reviewing of full scan GC-MS data for the confirmation of pesticide residues can be a labor-intensive and time-consuming process which requires great skill and concentration of an experienced analyst. The deconvolution software is able to process a complex food extract Total Ion Chromatogram (TIC) in the order of 1 minute, whereas an experienced analyst may take more than 30 minutes to achieve the same quality of results.

The extensive data (95 spiked pesticides from 0.01 – 0.2 µg/mL), run under totally blind conditions, show the high degree of confidence that an analyst can have in the results produced by the deconvolution software.

Chris Sandy and Chin-Kai Meng

Agilent Technologies,
2850 Centerville Road,
Wilmington Delaware 19808 USA