time points up to at least 48 h post-exposure and metabolites were quantified. Urinary metabolite excretion data obtained from the mixed exposures were compared with data obtained from the same individuals given a dose of each individual pesticide on a separate occasion.

Results Metabolite excretion profiles for both pesticides administered as a mixed dose with chlorpyrifos-methyl were qualitatively similar to those obtained for the individual doses. Peak excretion of deltamethrin and pirimicarb metabolites occurred at around 4 h post-exposure for both the individual and the mixed exposure scenarios, and metabolite excretion was almost complete within 24 h. No statistically significant differences were found between the individual and mixed doses for either metabolite excretion half-life or metabolite levels quantified in 24-h total urine collections.

Conclusions The data presented here indicate that no significant toxicokinetic interactions occur in humans between either deltamethrin or pirimicarb and chlorpyrifos-methyl when orally administered together at the ADI.

P185 HUMAN VOLUNTEER STUDIES INVESTIGATING THE POTENTIAL FOR TOXICOKINETIC INTERACTIONS BETWEEN THE PESTICIDES DELTAMETHRIN, PIRIMICARB AND CHLORPYRIFOS-METHYL FOLLOWING ORAL EXPOSURE AT THE ACCEPTABLE DAILY INTAKE

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Objectives To determine whether there are metabolic interactions between deltamethrin or pirimicarb and chlorpyrifos-methyl in humans at dietary levels. Deltamethrin and pirimicarb are metabolised in-vivo by hydrolytic enzymes, which may be susceptible to inhibition by esterase-inhibiting compounds, such as chlorpyrifos-methyl.

Methods Human volunteer studies have been conducted by orally administering the pesticides deltamethrin (0.01 mg/kg/day) or pirimicarb (0.02 mg/kg/day) at the acceptable daily intake (ADI) together with chlorpyrifos-methyl (0.01 mg/kg/day), in order to investigate any potential interactions that may occur during dietary exposure. Urine samples were collected at