

**Title** The effects of washing and cooking on chlorpyrifos and its toxic metabolites in vegetables

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#### **Abstract**

The effect of household processing on removal of chlorpyrifos residue from vegetables, and the formation of metabolite during processing were studied. Many factors: washing solutions, pH value, cooking mode, processing time were investigated. Analysis of chlorpyrifos and its metabolites was carried out by gas chromatography coupled to triple quadrupole mass spectrometry. Hydrolysis of chlorpyrifos affected the removal of residue from leafy vegetable during washing. Cooking on removal of chlorpyrifos residue was more effective than washing. Chlorpyrifos degraded into 3,5,6-trichloro-2-pyridinol during cooking, while chlorpyrifos did not degrade into chlorpyrifos oxon in all experiments.