LIQUID-LIQUID EXTRACTION FOLLOWED BY SOLID-PHASE EXTRACTION FOR THE DETERMINATION OF ORGANOPHOSPHORUS PESTICIDES IN CHERRY BY GAS CHROMATOGRAPHY FLAME PHOTOMETRIC DETECTION

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Organophosphorus pesticides are used in a great variety of crops (alfalfa, apple, apricots, orange, cherries, maize, tomato, rice etc.). Their use is preferred to other pesticides despite their high toxicity because organophosphorus pesticides exhibit moderate environmental persistence [1]. As a consequence, they are presently the most widely used group of insecticides worldwide [2].

In last years, new analytical procedures for the determination of pesticides are in use. These new techniques have advantages over conventional methods [3]. The aim of this work, was to develop sensitive, selective and time and cost-effective method based on ethyl acetate solvent extraction technique, solid-phase extraction for purification and gas chromatography-mass spectrometry for the analysis of organophosphorus pesticides in cherries. Pesticide residues were extracted with ethyl acetate. Extracts were cleaned up with solid-phase extraction column. The pesticide residues were determined by gas chromatography with flame photometric detector.