INTRODUCTION

Organophosphorus pesticides are widely used on vegetables and fruits for the control of insect pests. These chemicals are generally short persistence and do not accumulate in the animal tissues and environment. The rapid development of agriculture in Egypt has necessitated the use of a wide number of pesticides on crops. Based on many reports, it is evident that lack of knowledge and careless use of pesticides have created a health hazard to consumers. The continuous increase in the use of organophosphorus pesticides in agriculture and the existence of legislation concerning maximum residue limits of these pesticides in foods gave rise to study the dissipation rate of different pesticides. Data of pesticide residues in treated vegetables, fruits and foodstuffs are required for the premarket registration of pesticides and for setting maximum residue limits to protect the consumer against the possible health hazards of exposure to pesticides (Bates, 1979).

Pesticide residues analysis in market samples requires the need for methods capable of identifying and measuring more than one pesticide residue in samples of unknown history.

Monitoring programmes of pesticide residues in the foods at the local markets are currently carried out in all developed countries in order to generate a flow of data that serves in following up the regulation of pesticides use and evaluates the situation of food contamination with pesticide residues.

The purpose of this work was to investigate the following:

1- Persistence of three organophosphorus insecticides, namely malathion, pirimiphos-methyl and diazinon on and in some vegetable crops, i.e. tomatoes, cucumbers, green peppers, eggplant, okra, cabbage and snap beans. Also persistence of these insecticides was studied on and in the following fruits (grape fruits and leaves, fruits of peach, pear, apricot, fig and guava).