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## Knowledge of housewives on health effects of pesticide residue on fruits and vegetables

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### Abstract

A descriptive cross section survey approach study was conducted to assess the knowledge regarding health effects of pesticide residue on vegetables and fruits among house wives in a selected village, Salem. Data were collected from 50 housewives by convenient sampling technique. Findings revealed that overall level of knowledge regarding health effects of pesticide residue on fruits and vegetables shows that the highest percentage (36%) of housewives had poor knowledge whereas lowest percentage (4%) of housewives had very poor knowledge. Further 34% of housewives had average knowledge and 26% of them had good knowledge.

**Keywords:** Knowledge, health effects, pesticide residue on fruits & vegetables, housewives

### 1. Introduction

Vegetables and fruits are the most important ingredients of human diets for the maintenance of good health and prevention of disease cultivation of vegetables and fruits is an excellent source of employment for both rural and urban development as takes place. In many rural areas through truck forming in the form of market and background gardening to supply fresh produce to urban markets. Survey indicate that a very high proportion of housewives are at high risk of pesticide poisoning from occupational exposure. Survey analysis shows that more than 95% of housewives do not wear protective devices nor do they apply safety measures during pesticide formulation and application pesticide exposure may be exacerbated by the fact that a good proportion of these agricultural workers. (Health survey development committee 2015) The world health organization (WHO 2015) reports that 20% of pesticide use in the world is concentrated in developing countries posing a danger to human health and environment families residing in agriculture areas were found to have elevated levels of pesticides in their bodies. The importance of washing produce before eating it was driven home today by the release of a dirty dozen List of fruits and vegetables that tested positive for the highest concentration of pesticides.

Health problem is more severe in developing world. According to an estimate 99% of human pesticide poisoning fatalities occur in these countries, although these countries consume only about one fourth of all pesticides due to poverty. Small scale farmers in developing countries are of most vulnerable to pesticide exposure and poisoning. The high incidence of pesticide poisonings among small holders is also related to facility pesticide practices.

In India there is no analysis of pesticide residue in the final product that goes to the market pesticide residues in agriculture commodities have a significant influence in the area of international market. The importing country may reject commodities bearing pesticides residues above the legally permitted level because cordex alimentations commission's (FAO, WHO) has set standards of MRLS for pesticide in food making in international market. There for the export of vegetables is also risk because of possible high level of residues.

### Objectives

To assess the knowledge of housewives regarding health effects of pesticide residue on vegetables and fruits

### Methodology

#### Research Design and Research Approach

Descriptive design with cross sectional survey approach

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**Setting of the Study**

The study is conducted in Mookkannoor village in Salem.

**Population**

Housewives living in Mookkannoor village, Salem.

**Sampling**

**1. Sample**

Housewives living in Mookkannoor village Salem and present during the data collection

**2. Sample Size**

50 housewives

**3. Sampling Technique**

Convenient sampling technique were used in selecting the sample for this study.

**Instrument**

Structured questionnaire was used to collect data based on the study objectives.

**Description of the Tool**

Part-A-Demographic Data

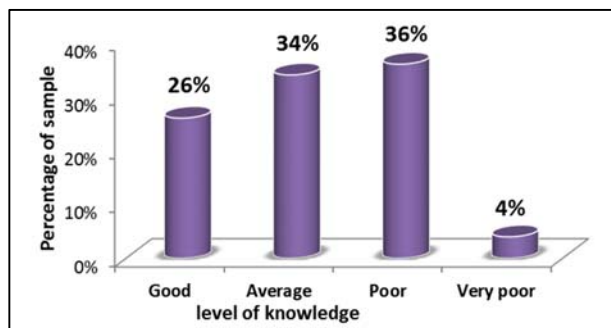
Part B-Knowledge Questionnaire

**Ethical Consideration**

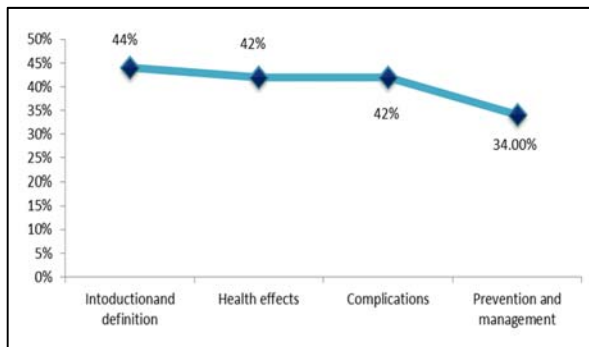
- Informed written consent was obtained from Village President, Mookkannoor village, Salem.
- Informed oral consent was obtained from house wives in Mookkannoor village, Salem.

**Results**

Overall level of knowledge regarding health effects of pesticide residue on fruits and vegetables shows that the highest percentage (36%) of housewives had poor knowledge whereas lowest percentage (4%) of housewives had very poor knowledge Further (34%) percentage of housewives had average knowledge and (26%) of housewives had good knowledge. Hence it can be interpreted that highest percentage (36%) people had poor knowledge regarding health effects of pesticide residue on fruits and vegetables. (Fig. No.1.1)



**Fig. 1.1:** Bar diagram showing percentage wise distribution of overall level of knowledge regarding health effects of pesticide residue from fruits and vegetables



**Fig 1.2:** Line graph showing percentage wise distribution of various aspects of knowledge regarding health effects if pesticide residue on fruits and vegetables among housewives.

Mean percentage of knowledge score of housewives on introduction and definition of pesticides residue on fruits and vegetables shows that the housewives had good knowledge (44%) in the area of health effects and complications of pesticide residue on fruits and vegetables respectively. Whereas they had poor knowledge. The over all knowledge (162.6%) reveals that the house wives had poor knowledge about prevention and management of pesticides residue. (Fig No. 1.2).

**Conclusion**

A description study with cross section survey approach was undertaken to assess the knowledge house wives regarding pesticide residue on fruits and vegetables. A total of 50 women were interviewed and obtained needed information. The obtained score was analysis by using both descriptive and inferential statistics. From the findings it can be concluded that most of the housewives were in the age group of 31-40 years and overall knowledge regarding health effects of pesticide residue on fruits and vegetables reveals that house wives had poor knowledge about health effects of pesticide residue on fruits and vegetables.

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