

# Assess the Knowledge Regarding Organic Dust Toxicity among Farmers in Kalavai

S. Divya\*, S. Sujithra\*\*

\*III<sup>rd</sup> Year B.Sc (N), Saveetha College of Nursing, Chennai, India

\*\*Guide / Assistant Professor

**Abstract:** *Introduction: Organic dust toxicity is an immunologically mediated lung disease causing repeated inhalations of organic antigens. The inflammation is often followed by granulomas, which they may progress to fibrosis. Farmers are known to have high mortality and morbidity from certain respiratory disease. Exposure to organic dust is one of the most important occupational risks among farmers. Objectives: Assess the knowledge on organic dust toxicity among farmers. Associate the level of knowledge with selected demographic variables. Methodology: Descriptive cross sectional design was adopted for this study, convenient sampling technique was used and 30 farmers were selected. The data was collected, analyzed, in terms of both inferential and descriptive statistics. Result: The study result showed that out of 30 samples 5(16.66%) members had adequate knowledge, 6(20%) members had moderate knowledge but majority of samples 19(63.33%) ranged under inadequate knowledge. This study implies that majority farmers residing at kalavai had inadequate knowledge on organic dust toxicity.*

**Keywords:** Organic dust toxicity, Farmers

## 1. Introduction

Farmers are the people who are working and raising field crops in the field of agriculture. They work to grow different crops and might own or work as a labourer on land owned by others. The farmer is the one of the most useful people of since the beginning of civilization. We all depend upon agriculture to meet our requirement of food. Though they feed the entire humanity they don't lead a satisfactory life.

Agricultural producers, both small and large are represented globally by The International Federation of Agricultural Producers (IFAP), representing over 600million farmers through 120 national farmers unions in 79 countries. Much of the air that farmers breathe is dirty and sometimes lethal. Farmers Lung and Organic dust toxicity syndrome (ODTS) are names given to two farm occupational disease caused by inhaling air borne mold spores. In grain dust or hay with moisture content of over 30%bacteria and fungi grow rapidly causing a rise of temperature to 40-50 deg C. Organic dust toxicity syndrome and hypersensitivity pneumonitis are associated with inhalation of organic materials like grain, hay, silage contaminated with microorganism.

It is quite possible that this condition might be widespread in India considering the bulk of the population engaged in agriculture. Acute symptoms (cough, wheezing, shortness of breath, fever, stuffy nose, and skin itching/rash) following exposure to grain dust was obtained from farmers. These symptoms were relatively common of farmers reported at least one such symptom on exposure to grain dust.

## 2. Statement of the Problem

“Assess the knowledge on organic dust toxicity among farmers at kalavai”.

## 3. Objectives of the Study

1. Assess the knowledge on organic dust toxicity among farmers.
2. Associate the level of knowledge with selected demographic variables.

## 4. Research Methodology

**Research approach** Quantitative research approach.

**Research design** Descriptive study.

**Setting** Kalavai, Vellore district.

**Sample** All adult farmers aged between 18-60 years in kalavai village.

**Sample size** sample size was 30.

**Sampling technique** Total 30 farmers were selected by convenient sampling technique.

### Criteria for sample selection

#### Inclusion criteria

1. Farmers between the age group of 18-60 years, both male and female.
2. Farmers who are present during data collection period.
3. Farmers who are willing to participate in the study.

#### Exclusion criteria:

1. Adult farmers who do not cooperate.

#### Data collection tool:

#### Part-I

The demographic data consists of age, education, occupation, income, working hours in field, number of years working as a farmer.

**Part –II**

It consists of structured questionnaire method to assess the knowledge on organic dust toxicity among farmers. It's a structured interview scheduled method consists of 20 questionnaire. The total result showed that out of 30 samples 5(16.66%) members had adequate knowledge, 6(20%) members had moderate knowledge but majority of samples 19(63.33%) ranged under inadequate knowledge.

**5. Analysis and Interpretation**

**Mean and standard deviation of organic dust toxicity among farmers**

<i>S. No</i>	<i>Level of knowledge</i>	<i>Mean</i>	<i>Standard deviation</i>
1.	Knowledge on organic dust toxicity among farmers	9.46	3.88

**Distribution of level of knowledge on organic dust toxicity among farmers**

<i>S. No</i>	<i>Level of Knowledge</i>	<i>Number</i>	<i>Percentage</i>
1.	Inadequate knowledge	19	63.33%
2.	Moderate knowledge	6	20%
3.	Adequate knowledge	5	16.66%

**6. Major Findings of the Study**

1. The frequency and percentage distribution of demographic variable out of 30 samples 11(37%) belongs to 55-60 years; with respect to gender 16(53%) were male, 4; 15(50%) were non formal; 17(57%) gets monthly income of about Rs.2500;7(57%) works in the field for about 4 hours;13(43%) of farmers were experienced for more than 25 years.
2. The frequency and percentage distribution of level of knowledge on organic dust toxicity among farmers. Out of 30 samples 5(16.66%) members had adequate knowledge, 6(20%) members had moderate knowledge but majority of samples 19(63.33%) ranged under inadequate knowledge.

**7. Conclusion**

Most of the farmers who were residing had inadequate knowledge on organic dust toxicity. There was a significant association between demographic variables like age and educational qualification and non significant association between demographic variables like gender, monthly income, and working hours in the field, number of years working as a farmer.

**Reference**

- [1] Park K.” Text book of preventive and social medicine”, 11th edition, Banarsidas Bhanot Publishers, Jabalpur
- [2] Gulani KK Conceptual Aspects of community Health. In Community Health Nursing Principles & Practices, Chapter 1, 1st edition, Kumar Publishers, Delhi, 2005
- [3] Brunner & Suddarths, Text book of Medical Surgical Nursing, 13th edition, Volume I, Wolters Kluwers publications
- [4] Manfreda J, Holford-Strevens V, Cheang M, Warren CP Acute symptoms following exposure to grain dust in farming. Environmental Health Perspect. 1986.
- [5] Kotimaa MH, Terho EO, Husman K. Airborne moulds and actinomycetes in work environment of farmers. Kuopio Regional Institute of Occupational Health, Finland