

# A Study on Awareness of Agricultural Waste Management in Tirupur District

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## Abstract:

Agricultural waste management is a crucial aspect of sustainable farming practices, ensuring environmental protection and resource optimization. This study explores the awareness levels of farmers in Tirupur district regarding agricultural waste management, including methods such as composting, biogas production, residue recycling, and controlled disposal. A structured survey was conducted among farmers across different regions of Tirupur to assess their knowledge, attitudes, and challenges in implementing proper waste management techniques. The findings reveal varying degrees of awareness, with factors such as education, farm size, and access to resources influencing waste management practices. The study highlights the need for targeted awareness programs, government interventions, and policy measures to enhance sustainable waste management in agriculture. Encouraging eco-friendly practices among farmers can significantly reduce environmental pollution and improve soil health, contributing to long-term agricultural sustainability in the region.

**Keywords:** Agriculture waste management, Awareness, sustainable farming, environmental, Impact

## INTRODUCTION

Agriculture plays a pivotal role in the global economy, providing food, raw materials, and jobs for millions of people worldwide. However, as agricultural practices continue to evolve and expand to meet the demands of a growing global population, the generation of agricultural waste has become an increasingly critical issue. Agricultural waste includes all by-products and residues generated from farming activities, such as crop residues, animal manure, unused seeds, pesticide containers, plastics, and other materials associated with farming operations. While these by-products are inevitable in any agricultural system, their disposal and management can have significant implications for both the environment and the farming community

## Statement of the Problem

The present study is entitled as “A Study on Awareness of Agricultural Waste management in Tirupur District”. The study is basically to analyse the current situations the hindrances faced by current society including the authorities worldwide and pick the best remedies from every government and public opinions to the best of our knowledge for the city of Tirupur and the society here. Agricultural waste, including crop residues, livestock waste, and other by-products, poses significant environmental challenges if not properly managed. In Tirupur, a region known for its agricultural activities, these challenges are particularly relevant due to the growing concerns over waste disposal, pollution, and the

environmental impact of improper management.

### **Objectives of the study**

- To study about the awareness of agricultural waste management among farmers
- To figure out the methods of disposal of agricultural waste generated
- To analyse the factors influencing agricultural waste management
- To assess the need of the hour and suggest new ideas on the basis of the report created

### **Scope of the Study**

The scope of the present study is confirmed to “**Awareness of agricultural waste Management in the city of Tirupur**”. The articles of various authors are analyzed and the best out of the remedies given by them are taken and questions relating to them are given to the farmers and results are recorded. The questions include basic information like name, age, gender, and place of living. This study is mainly to give suggestions about international methods to our farmers.

### **Research Methodology:**

#### **Data Analysis**

In the present study “A study on awareness of agricultural waste management in Tirupur district” Primary data is collected and used efforts has been made to analyse Public Opinion by careful recording of the answers given by them for the questions being set based on the data collected. The suggestions given are purely based on the answers filled by public to the questions created and our feedbacks are not padded by the team.

#### **Sources of Data**

The Data is collected from a primary source. The collection of data is used by Questionnaire method.

#### **Sample Design**

A sample design is a definite plan for obtaining a simple solution from a given population. It refers to the technique or the procedure the researcher would adopt in selection of items for the convenient sample.

#### **Sample Size**

The sample size is taken for this research was 100

### **TOOLS TO BE USED FOR ANALYSIS**

- CHI –SQUARE
- RECYCLE THE SCRAP CREATED

### **LITERATURE REVIEW**

**Sivakumaran Sivaramanan(2013)<sup>1</sup>** Plastic is a non-biodegradable organic polymer, which is commonly used in materials, large amounts of discarded plastics accumulating in oceans as Garbage islands and in land and fumes releasing during incineration

**Mohammad J. Taherzadeh, Tobais Richards(2015)<sup>2</sup>**

Current developments results in a linear flow from raw material to waste, which cannot be sustainable in the long term. Plus a global population of billions of people means that there are billions of waste producers in the world. At present, dumping and land filling are the primary practices for getting rid of

municipal Solid Waste Management.

**Christian Reynolds, Tammara Soma, Charlotte Spring, Jordon Lazell(2021)<sup>3</sup>**

This comprehensive handbook represents a definitive state of current art and science of food waste from multiple perspectives. The issue of food waste has emerged in recent years as a major global problem. Recent researches has enabled greater understandings and measurement of loss and waste throughout food supply chains.

**DATA ANALYSIS AND INTERPRETATION**

**CHI-SQUARE ANALYSIS**

**WHAT TYPE OF FERTILIZERS DOES YOU USE**

STATEMENT	Class				Chi-Square	p-value	Significant
	Below 25	25 to 30	30 to 40	40 and Above			
NATURAL (from store)		2	3	20	5.965	0.039	Significant
ARTIFICIAL (from store)	-	2	4	4			
NATURAL (from your own field)	-	3	10	28			
BOTH A AND B	-	3	5	14			

Among the respondents, the awareness in relation to the different types of fertilizers is significant to the p-value. Since the ‘p’ value is less than 0.05, the null hypothesis is rejected. Therefore, it may be concluded that there is a significant difference in awareness level towards fertilizers used in relation to the age of the respondents.

**DO YOU RECYCLE THE SCRAP CREATED IN YOUR CULTIVATION**

STATEMENT	Class				Chi-Square	p-value	Significant
	Below 25	25 to 30	30 to 40	40 and Above			
Yes and all the time	-	2	3	12	8.271	0.021	Significant
Yes but sometimes	-	2	6	15			
Depends upon the plant cultivated	-	5	8	28			
Not at all	-	1	5	9			

Among the respondents, the awareness in relation to the recycling the scraps in cultivation are significant to the p-value. Since the 'p' value is less than 0.05, the null hypothesis is rejected. Therefore, it may be concluded that there is a significant difference in awareness level towards recycling the scraps in cultivation used in relation to the age of the respondents.

### **SUGGESTIONS**

Agricultural waste management plays a vital role in creating natural fertilizers, which are essential for enhancing soil fertility and ensuring sustainable farming practices. Cow dung is widely recognized as a valuable contributor to organic fertilizers, providing key nutrients such as nitrogen, phosphorus, and potassium. Poultry waste, including droppings and feathers, is equally important due to its rich nutrient content, making it an excellent source for improving soil health. Leftover plant materials, such as crop residues, also contribute to natural fertilizers by enriching the soil with organic matter when properly composted.

### **CONCLUSIONS**

Natural agricultural wastes are the best suitable fertilizers which are available for any kind of agriculture. Nowadays cow dung are the most used natural fertilizer, they are also used as a mixing agent with the artificial fertilizer. But they are not the only useful natural fertilizer; poultry wastes are also equally beneficial to cow dung; the left over plants are also equally important natural fertilizer. An agricultural field depends on the natural fertilizers we add to it, the addition of left over plants and poultry wastes are equally beneficial to plants.