

CERTIFICATE

This is to certify that the dissertation entitled "***Creating Awareness on Organic Waste Management Practices among Selected Rural Households***" submitted to the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in Resource Management, is a record of original research work done by R. Vinothini, during the period of her study in the Department of Resource Management, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any other University and represents entirely and independent work on the part of the candidate.

Naranga
14/5/25

Signature of the
Head of the Department
Guide


Signature of the Guide.

Signature
14.5.2025

Signature of the Dean

DECLARATION

I hereby declare that the matter embodied in this thesis entitled "**Creating Awareness on Organic Waste Management Practices among Selected Rural Households**" is the result of investigation carried out by me in the Department of Resource Management, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore under the supervision and guidance of **Dr.(Mrs.)K.Manimozhi,M.Sc.,B.Ed.,M.Phil.,Ph.D., PDF.**, Professor, Department of Resource Management, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore and it has not been submitted for the award of any Degree / Diploma / Associateship / Fellowship or similar titles to any other candidate of any University or Institute.



Signature of the Guide



Signature of the Candidate

ACKNOWLEDGEMENT

First and foremost, I would like to thank God Almighty for giving me the strength, knowledge, ability and opportunity to undertake this research study and to persevere and complete it satisfactorily. Without his blessings, this achievement would not have been possible.

I take this opportunity to sincerely acknowledge and pay reverent homage to the late **Dr.T.S.Avinashilingam Ayya**, the founder and first Chancellor, and **Dr.Rajammal P. Devdas**, the first Vice Chancellor, of the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing this temple of learning and for their heavenly blessings

I express my heartfelt gratitude to former chancellors **Shri Dr. P.R. Krishnakumar and Prof. S.P. Thyagarajan**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for giving me consistent motivation during the research work.

I record my heartfelt gratitude to **Dr.T.S.K.Meenakshisundaram M.A., M.Phil., Ph.D.**, Chancellor, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing all the necessary facilities for conducting the research work.

I express my sincere thanks to former Vice Chancellor **Dr. (Mrs.) Premavathy Vijayan**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for allowing me to take up the research work

I express a deep sense of gratitude to **Dr. (Mrs.) V. Bharathi Harishankar, Ph.D., FRSA.**, Vice Chancellor, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing the entire facilities essential to carry out and complete the study.

I record my sincere thanks to Former Registrar **Dr. (Mrs.) S. Kowsalya, M.Sc., M.Phil., Ph.D.**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing the necessary facilities to carry out the study.

I record my sincere thanks to **Dr. (Mrs.) Dr. H. Indu, M.Sc., M.Ed., M.Phil., Ph.D., MBA, SLET.**, Registrar, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for providing the necessary facilities to carry out the study.

I express my sincere thanks to **Dr. (Mrs.) P. Santhi**, Professor of Home Science, ICAR-Krishi Vigyan Kendra, Reddipalayam, Thiruvallur, and a member of the Doctoral Committee, for her valuable contribution throughout my study period.

I owe my deep sense of gratitude to **Dr. (Mrs.) K. Manimozhi, M.Sc., B.Ed., M.Phil., Ph.D., PDF.**, Controller of Examinations, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for her amiable support and encouragement.

I express my sincere thanks to **Dr. (Mrs.) N. Vasugi**, Former Dean of, the School of Home Science, Dean of Student Affairs, and Head i/c of the Department of Resource Management, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for her encouragement, support, and advice throughout the study.

I express my special debt of gratitude to **Dr. (Mrs.) S. Amsamani, M.Sc., M.Phil., Ph.D.**, Professor, Dean, School of Home Science, Avinashilingam Institute for Home Science and Higher Education for Women, for her amiable support and encouragement.

I express my sincere thanks to **Dr. (Mrs.) P. Lalitha, M.Sc., M.Phil., Ph.D.**, Director, Research and Development Cell, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, for her encouragement and support.

The investigator deems it a privilege to have **Dr. (Mrs.) K. Manimozhi, M.Sc., B.Ed., M.Phil., Ph.D., PDF.**, Professor, Department of Resource Management, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, as a guide and expresses sincere gratitude for her keen interest, patient hearing, untiring effort, skillful instructions, esteemed guidance, and suggestions that instilled in me the spirit of confidence to complete the task. The investigators thank her for her untiring encouragement and for serving as a role model. The enthusiasm and scientific temperament she has for research and her caring ways are contagiously motivating, even during tough times, in every step of my work.

The investigator would like to take this opportunity to convey her heartfelt gratitude to the **University Grants Commission** in New Delhi for considering and sanctioning the Major Research Project Under **STRIDE COMPONENT- I** for the three-year term 2020-2023. The investigator considers herself extremely lucky to be working on this community-based research project and contributing to the betterment of society,

as well as to have used the project area's minimum materials for her PhD programme. She thinks that the research will positively impact existing agricultural practices in general, and she will continue to direct her thoughts, feelings, and activities in that direction. Once again, she expresses her heartfelt gratitude to UGC for the opportunity to participate as a project fellow on this initiative.

The investigator is grateful for the continuous assistance and cooperation provided by the farmers in the chosen community. The investigator expresses her heartfelt gratitude to the Assistant Directors of the Agriculture Office, Block Development Officers, and Field Officers of the Sathyamangalam Block in Erode District.

The investigator feels great and expresses her heartfelt thanks to all teaching staff members of the Department of Resource Management for their pillar of support.

The investigator likes to express her special thanks to the Ph.D. Research Scholars and non-teaching staff members of the Department of Resource Management.

No words match to express my everlasting love and gratitude to my beloved parents, who were not only the source of inspiration, courage, and strength, but also the real architects of my career. I also thank my endearingly loving brothers, sisters-in-law, and family members.

LIST OF TABLES

Table No	Title	Page No
I.	Content, Methods, and Aids used in the Training Programme	56
II.	Major Thrust Areas Covered in the Training Programme	59
III.	Demographic Profile of the Selected Households	83
IV.	Type of Land Holdings by the Selected Households	86
V.	Type of Food Crops Cultivated by the Selected Households	88
VI.	Types of Fertilizers Used for Cultivation	91
VII.	Average Fertilizer Used and Cost per cropping	93
VIII.	Difficulties Faced During Cultivation	94
IX.	Common Insects and Pests Identified in the Field	96
X.	Common Diseases Identified in the Field	97
XI.	Pesticides used to Control Insects and Pests	100
XII.	Average Pesticides used and Costs per Cropping	101
XIII.	Problems Faced by Using Inorganic Fertilizers and Pesticides	102
XIV.	Existing Organic Agricultural Practices in the Selected Households	104
XV.	Average Quantity of Wastes Produced by the Selected Households	107
XVI.	Methods of Disposal of Household Waste	108
XVII.	Problems Faced due to Accumulation of Household Waste	110

Table No	Title	Page No
XVIII.	Methods of Reusing Household Waste	112
XIX.	Reasons for Improper Disposal of Waste	113
XX.	Need for Clean Environment	114
XXI.	Effectiveness of Teaching Methods as Expressed by the Trainees	116
XXII.	Changes of Knowledge towards Organic Farming Practices	126
XXIII.	Change of Attitudes towards Organic Farming Practices	127
XXIV.	Acceptance to Adopt Organic Farming Practices	129
XXV.	Total Number of Farmers Benefitted During the Village-Level Training	132
XXVI.	Adoption of Organic Fertilizers by the Selected Households	133
XXVII.	Adoption of Organic Growth Boosters by the Selected Households	135
XXVIII.	Adoption of Organic Methods to Prevent and Control Pests and Diseases during Pre-harvesting	139
XXIX.	Adoption of Organic Methods to Prevent and Control Insects and Pests during Post-harvesting	142
XXX.	Percentage of Food Grain Losses	144
XXXI.	Average Economic Benefits derived by the Adoption of Organic Farming Practices	146
XXXII.	Opinion Regarding the Adoption of Organic Farming Practices	147
XXXIII.	Suggestion for Better Adoption of Organic Farming Practices	148

LIST OF FIGURES

Figure No.	Title	Page No.
1a	Percentage of pesticide utilization by different states in India	26
1b	Distribution and harmful effects of common chemical fertilizers used in India	27
1c	Schematic Representation of the Research Design	46
2.	Area Selected for the Study	51
3.	Type of Land Holdings by the Selected Households	87
4.	Fertilizers Used for Cultivation	91
5.	Difficulties Faced during Cultivation	94
6.	Diseases Identified in the Field	97
7.	Pesticides Used to Control Insects and Pests	100
8.	Problems Faced by using Inorganic Fertilizers and Pesticides	103
9.	Methods of Disposal of Household Waste	108
10.	Problems Faced due to Accumulation of Household Waste	111
11.	Changes of Knowledge towards Organic Farming Practices	126
12.	Change of Attitudes towards Organic Farming Practices	128
13.	Acceptance to Adopt Organic Farming Practices	130
14.	Adoption of Organic Fertilizers by the Selected Households	133
15.	Percentage of Food Grain Losses	144

LIST OF PLATES

Plate No.	Title	Page No.
1.	Household Survey	54
2.	Preparation of Compost/Grow bag	64
3.	Preparation of Compost in Plastic Container	65
4.	Portable-Slipaulin Vermibed	66
5.	Permanent Methods-Compost Pit	67
6.	Preparation of Organic Growth Boosters	68
7.	Preparation of Organic Pesticides	69
8.	Collaborative meetings with Agricultural Officers	73
9.	Meetings and Special Lectures at the Block level	74
10.	Meetings and Special Lectures at the Village level	75
11.	Charts used during the Training Programme	76
12.	Posters and Banner used during the Training Programme	77
13.	Leaflets and Pamphlets Distributed during the Training Programme	78
14.	Training Manual Distributed to the Trainees	79
15.	Common Pests Identified in the Field	99
16.	Common Diseases Identified in Selected Field	99
17.	Group Discussions on Organic Farming	118

Plate No.	Title	Page No.
18.	Lectures cum Demonstrations on Organic Farming	119
19.	Demonstration on Soil Testing by TNAU Experts	120
20.	Trained Farmers Give Training to Other Farmers in Their Villages	121
21.	Awareness Creation through Street Play	122
22.	Field Composting – Portable	123
23.	Field Composting – Permanent	124
24.	Meetings on Organic Farming Practices by the Subject Expert	125
25.	Adoption Level of Organic Fertilizers	137
26.	Adoption of Organic Growth Boosters	137
27.	Adoption of Organic Methods to Prevent and Control Pests and Diseases during Pre-harvesting	141

LIST OF ANNEXURES

Annexure No.	Title
I.	Ethical Certificate
II.	Authorization Letter from Agriculture Extension Centre
III.	Training Manual on Organic Farming Practices

LIST OF APPENDICES

Appendix No.	Title
I.	Agricultural Profile of the Selected Blocks
II.	Profile of the Selected Villages
III a.	Questionnaire on General Information
III b.	Regional Language Questionnaire on General Information
IV.	Knowledge Inventory
V.	Attitude Inventory
VI.	Acceptance of Adoption Inventory
VII.	Statistical Analysis of Knowledge, Attitude and Acceptance of Adoption Scores Before and After the Training Programme