

ORGANIC FARMING

CULTIVATING SUSTAINABLE FUTURE



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(A Textbook on the basis of Fifth Deans Committee Syllabus)

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First Impression: 2024 (February)

Organic Farming: Cultivating Sustainable Future

ISBN: 978-81-19481-71-2

Rs. 550/-

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Published by:
IARA Publication



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Foreword

People around the world are strongly feeling the need for alternative methods of producing food as the negative effects of chemical use in present-day farming are being increasingly understood and acknowledged. Among many different non-chemical alternative methods, organic farming is one, recommended for being a sustainable form of agriculture that utilizes simple techniques, with barely any harmful consequences to the environment while reducing health risks to consumers. The authors have illustrated the concepts of organic farming giving a brief outline of its history and described different practices which include soil conservation and nutrient management as well as the preparation of organic manure and compost. The readers will be able to detect, in the book, specific or individual aspects of organic agriculture within broader and more general accounts. The readers will receive a comprehensive overview and find deeper insights and thoughts on the prospects of organic farming and its further evolution. Hence, this book might inspire the readers to continue intensive research in organic agriculture.

The book has the distinguishing quality of providing comprehensive and concise knowledge about various principles, cultivation practices, management, etc. under the organic farming system. I am glad to forward this book, which is written in clear language based on the ICAR syllabus (Fifth Dean's Committee Report) and is filled with helpful details about organic farming that researchers and students will find valuable to advance their knowledge.

I sincerely appreciate and applaud the authors Ms. Okram Ricky Devi, Dr. Nayanjyoti Ojha, Mr. Bibek Laishram, and Dr. Kalyan Pathak, Department of Agronomy, Assam Agricultural University, Jorhat for their commendable work. I also put in record that the title of the book - "Organic Farming: Cultivating Sustainable Future" is a vivid expression of the authors' creative minds. I wish them good luck and hope they will continue to working in this area with still more vigour and a sense of purpose. In conclusion, I hope the book does justice to its imaginative and ambitious title and finds desired acceptance among the readers.

Pathak
23/12/24

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Preface

Organic farming is relatively not a young but growing discipline acknowledging the organic principles and practices that underlie this field. This book brings several chapters of which concept, history, principles, management and certification are covered. While it is well established that organic production systems represent different healthy growing environments compared to conventional systems. The first section of the book provides some illumination on this subject in its coverage of general topics of organic farming. This book will be able to be read independently by those with any agriculture/ horticulture/environmental background in crop production. With this book, we seek to provide subject matter of interest to students, researchers and other professionals from universities and institutes related to organic research seed companies. It is our hope and expectation that this book will be relevant to organic practices and methods that will facilitate the search for more sustainable farming systems for the twenty-first century and beyond.

Okram Ricky Devi

Nayanjyoti Ojha

Bibek Laishram

Kalyan Pathak

Acknowledgement

The idea for this book came from respected Ma'am, Dr. Nayanjyoti Ojha, Professor (Agronomy), Assam Agricultural University, Jorhat, Assam. The authors of this book gratefully took up her invitation and are thankful for her valuable and expert assistance during preparation of the book. This book is an opportunity to bring the young researchers with subject experts together to enhance the knowledge.

We are grateful to Dr. Kalyan Pathak, the Head of Department of Agronomy at Assam Agricultural University in Jorhat, Assam, for his assistance and incisive suggestions in the development of this book. He has encouraged us and provided the “forward message” for the publication.

Chapters were prepared with great inspiration, sharing knowledge together, experience and expertise among the authors. The authors were very cooperative during the preparation and without their commitment; this book would not have achieved this level of quality and the finalization of the book.

We sincerely thank all of the writers whose works and publications were utilized in the preparation of this synthesis and express our sincere gratitude to them. Finally, we send thanks to our beloved families and friends for their patience and support as we burned the midnight oil in bringing this task to fruition.

Special thanks to IARA Publication for bringing out this textbook in the present form and for publishing the same within a short period of time.

Dedication

This book is dedicated to all organic growers, with the goal of enabling them to appreciate the amazing intricacies involved in organic agricultural practices. The objective of this book is to advance knowledge and innovation in the field of organic agriculture by laying out the foundation of organic farming.

Table of Contents

Preface	IV
Acknowledgement	VI
Table of Contents	VIII - XI

Title of Chapters	Page No.
CHAPTER I	
INTRODUCTION TO ORGANIC AGRICULTURE	1
1.1 Development of Organic Farming: Seeds of a Revolution	1
1.2 Concept of Organic Farming	3
1.3 The Four Pillars of Organic Farming	8
1.4 Organic Farming in the Context of Sustainable Agriculture	10
1.5 Objectives and Options of Organic Farming	13
CHAPTER II	
ARO-ECOLOGY FOR FOOD SECURITY AND SUSTAINABILITY	16
2.1 Concept of Agro-Ecology	16
2.2 Principles of Agro-Ecology	17
2.3 Agro-Ecology for Sustainable Agriculture	18
2.4 Agro-Ecology for Natural Resource Management(NRM)	19
2.5 Agro-Ecology for Food Security and Livelihood	20
CHAPTER III	
BENEFITS OF ORGANIC AGRICULTURE	24
3.1 Soil Health in Organic farming	24
3.2 Soil Fertility Management	26

3.3	Microbial Activity in Soil	28
3.4	Organic Soil Amendments	29
3.5	Environmental Sustainability	31
3.6	Economic Considerations	32
3.7	Biodiversity Conservation	33
CHAPTER IV		
PRACTICES OF ORGANIC FARMING		35
4.1	Crop Rotation	36
4.2	Cover Crops	40
4.3	Composting	41
4.4	Mulching	43
4.5	Tillage for Conservation of Organic Matter	45
4.6	Green Manuring	48
CHAPTER V		
WEED MANAGEMENT IN ORGANIC FARMING		56
5.1	Prevention and Monitoring	57
5.2	Curative Methods	61
5.3	Integrated Weed Management	62
CHAPTER VI		
PEST AND DISEASE MANAGEMENT IN ORGANIC FARMING		69
6.1	Prevention of Pest Problems– Cultural Control	69
6.2	Sustainable Solutions in Organic Pest and Disease Management	70
6.3	Insect-Pest Management through Plant Products	75

6.4	Integrated Pest Management	80
CHAPTER VII		
CROP SELECTION FOR ORGANIC FARMING		83
7.1	Suitable Crops for Organic Farming	83
7.2	Crop Rotation Planning	85
7.3	Companion Planting Strategies	86
CHAPTER VIII		
NUTRIENT MANAGEMENT THROUGH ORGANIC FARMING		88
8.1	Nutrient Recycling through Organic Manure-FYM	88
8.2	Composting	91
8.3	Vermicompost Production	100
8.4	Biofertilizers	103
8.5	Opportunities and Challenges of Nutrient Management	108
CHAPTER IX		
ROLE OF AGROFORESTRY AS A SUSTAINABLE LAND USE SYSTEM		113
9.1	Agroforestry	113
9.2	Role and Types of Agroforestry	114
CHAPTER X		
CERTIFICATION OF ORGANIC AGRICULTURE		132
10.1	Organic Certification	132
10.2	Area, Marketing, Quality, National Economy in Organic Farming	138
10.3	Safety and Quality of Organically Produced Food	142

10.4	Conclusion and Future Trends	142
10.5	Future trends	143
	REFERENCES	149

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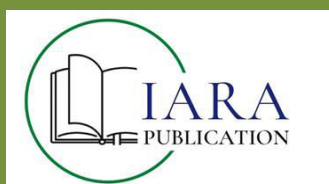
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Dr. Kalyan Pathak is presently working as Professor & Head, Department of Agronomy, AAU, Jorhat. After completing his PG, Agriculture (Agronomy), in 1993 served for more than three years in Assam Remote Sensing Application Centre, Guwahati in a Department of Space, Govt. of India as Project Scientist. He joined AAU as Assistant Professor in 1996 and worked in Krishi Vigyan Kendra (KVK), Cachar, Nowgaon and Golaghat. He visited International Rice Research Institute (IRRI), Philippines for participation of International Rice Research Conference during April, 2000. He acquired his PhD degree from G.B.P.U.A.&T., Pantnagar in 2005 (in service). He also served as Senior Scientist in AICRP on Irrigation water management since 2009. He was the Associated Scientist from Assam Agricultural University for the Project Development and Implementation of Assam Agribusiness and Rural Transformation Project (APART) funded by World Bank since 2016-17. Dr. Pathak also guided 10 M.Sc(Agri.) and 03 PhD students as Major Advisor. He has published 55 research articles in the National and International Journal, 5 edited books, more than 12 book chapters & over 55 popular articles. Presently, He is the Nodal Officer of the Natural Farming Project funded by Govt of Assam since 2022-23. He is also worked as Chief Agronomist (i/c) of AICRP of Integrated Farming System, AAU, Jorhat.



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