

Entrepreneur India

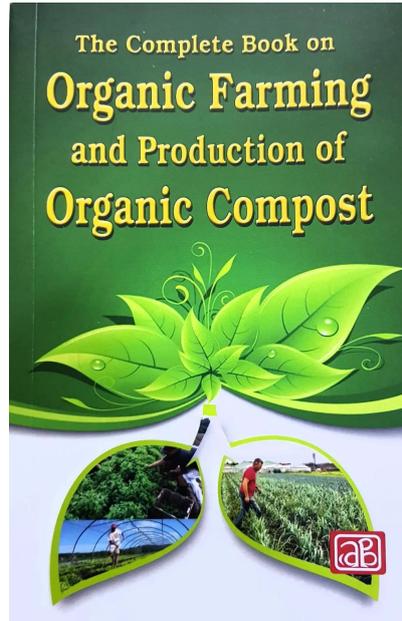
106-E, Kamla Nagar, New Delhi-110007, India.

Tel: 91-11-23843955, +91 9097075054

Mobile: +91-9097075054

Email: npcs.ei@gmail.com, info@entrepreneurindia.co

Website: www.entrepreneurIndia.co



The Complete Book on Organic Farming and Production of Organic Compost (3rd Edition)

Code	NI213
Format	paperback
Indian Price	₹1675
US Price	\$150
Pages	440
ISBN	9788194099529
Publisher	Asia Pacific Business Press Inc.

Description

Organic farming, composed of organic fertilizers as an integral virtue, continues to remain a lucrative bet for the expanding agricultural industry, in line with growing organic food appeal to consumers as a healthy and ethical choice. Beyond ethics, organic fertilizers are gaining significant traction on account of numerous environmental benefits, such as enhanced soil structure and water conservation. Growing awareness among farmers about the nutritional benefits of plant based and animal based fertilizers and their role in promoting growth of earthworm and other microbiological activities vital for plant growth are fuelling adoption of organic fertilizers. Animal based organic fertilizers are garnering significant traction over plant based variants owing to their good aeration and water retention capabilities that enhance the soil fertility.

As consumers today are inclined towards clean labels and seeking transparency in everything they consume, organic has emerged as a promising approach to address these concerns. In light of these beneficial aspects of organic approaches and after gauging the futuristic opportunistic value of organic fertilizers.

Increasing health issues such as diabetes, obesity and digestive disorders are also one of the factors driving the growth of the organic food. The increased accessibility of organic food and beverages in retail outlets make it more convenient for consumers to purchase these products. Asia-Pacific is also expected to rapidly increase in CAGR, owing to the changing lifestyles and increase in consumer disposable income. Organic food products and shifting consumer preference towards organic food are among the major factors expected to boost demand for organic food products in India. Growing awareness among the consumers regarding the benefits of organic fertilizers over chemical fertilizers, and increasing awareness among farmers and cultivators towards eco-friendly fertilizers. The escalating demand for organic food products is likely to create a dire need for large scale development of organic fertilizers in the forthcoming years, which in turn will create a wide field of opportunities for stakeholders. Sensing the growing demand for organic fertilizers, market goliaths have shifted their focus on expanding their organic fertilizer produce to capitalize on the growing unmet demand from consumers.

The book cover various aspects related to different organic farming and production of organic compost with their agriculture process and also provides contact details of machinery suppliers with equipment photographs and plant layout.

A total guide to manufacturing and entrepreneurial success in one of today's organic farming and compost industry. This book is one-stop guide to one of the fastest growing sectors of the organic farming and compost industry, where opportunities abound for manufacturers, retailers, and entrepreneurs. This is the only complete handbook on the commercial production of organic farming and compost. It serves up a feast of how-to information, from concept to purchasing equipment.

Content

Table of Content:

1. ORGANIC FARMING

1. Types of Organic Farming
2. Need of Organic Farming
3. Limitations
4. Benefits
5. Relevance
6. Advantages and Disadvantages of Organic Farming
7. Methods or Techniques of Organic Farming

2. SUSTAINABLE AGRICULTURE AND ORGANIC FARMING

1. The Background
2. Characteristics of Sustainable Agriculture
3. Definition of Sustainable Agriculture
4. Organic Farming
5. National Programme for Organic Production (Features)

4. CONCEPTS, DEFINITION AND COMPONENTS

1. Concept and Definition
2. Organic Vs Natural Farming
3. Essential Characteristics of Organic Farming
4. Key Principles of Organic Agriculture Systems
 1. *Mixed Farming*
 2. *Crop Rotation*
 3. *Organic Cycle Optimization*
 4. *Objectives of Organic and Conventional Farming*
5. Options in Organic Farming
 1. *Pure Organic Farming*
 2. *Integrated Green Revolution Farming*
 3. *Integrated Farming System*
6. Management of Organic Farming
7. Advantages of Organic Farming

8. Barriers to Organic Farming
9. Components of Organic Farming
 1. *Organic Manures*
 2. *Non-Chemical Weed Control Measures*
 3. *Biological Pest Management*

5. METHODS OF ORGANIC FARMING

1. A Step By Step Guide to Methods of Organic Farming
2. Characteristics of Organic Farming
3. Objectives of Adopting Organic Farming
4. Different Methods of Organic Farming
 1. *Crop Diversity*
 2. *Crop Rotation*
 3. *Biological Pest Control*
 4. *Soil Management*
 5. *Green Manure*
 6. *Compost*
 7. *Weed Management*
 8. *Controlling Other Organisms*
 9. *Livestock*
 10. *Genetic Modification*

6. HOW TO START AN ORGANIC FARMING BUSINESS

1. Educate Yourself
2. Choose the Right Location
3. Develop a Business Plan
4. Prepare the Land
5. Get Seeds and Plant
6. Implement Organic Farming Practices
7. Certify Your Farm (if needed)
8. Market Your Products
9. Stay Committed to Sustainability
10. Expand Gradually

7. ORGANIC FARMING AND CLIMATE CHANGE

1. Impact of Conventional Farming on Climate Change
2. Climate Change Resilience of Organic Agriculture
3. Organic Agriculture is an Important Lever in Moving the Needle on Climate Change
4. Climate Change
5. Organic Agriculture and Desertification

8. SOIL MANAGEMENT IN ORGANIC FARMING

1. Functions of Soil Health
2. Understanding the Physical, Chemical and Biological Aspects of a Healthy Soil

3. Why is Soil Health Important?
4. What is Soil Degradation?
5. How can Protect Soil Health?

9. ORGANIC CROP PRODUCTION

1. Principles of Organic Crop Production
 2. Soil Management in Organic Farming
 3. Pest and Disease Management
 4. Weed Management
 5. Irrigation and Water Management
 6. Harvesting and Post-Harvest Handling
 7. Certification and Compliance
 8. Challenges in Organic Crop Production
 9. Future of Organic Crop Production
10. What are the Key Benefits of Organic Crop Production?
1. *Environmental Benefits*
 2. *Health Benefits*
 3. *Economic and Social Benefits*

8.10.4 Agricultural Sustainability

11. How does Organic Farming Reduce Erosion?
1. *Improved Soil Structure*
 2. *Enhanced Water Management*
 3. *Protective Ground Cover*
 4. *Diverse Crop Rotations*
 5. *Reduced Tillage Practices*
 6. *Enhanced Root Systems*

9. SMART SOLUTIONS FOR SUSTAINABLE FARMING

1. Precision Agriculture in Organic Systems
2. Biological Pest Control and AI
3. Crop Monitoring and Harvesting Technologies
4. Data Analytics and Farm Management Software
5. Genetic Technologies in Organic Breeding
6. Energy-Efficient Farm Infrastructure
7. How does Technology Improve Crop Yield in Organic Farming

10. COW DUNG AND URINE IN ORGANIC FARMING

1. Historical Significance
2. Science Behind the Practice
3. Applications in Organic Farming
4. Challenges and Considerations
5. Future Prospects
6. Benefits of Using Cow Dung in Organic Farming

7. Cow Urine Contribute to Soil Health in Organic Farming

11. EQUIPMENT USED IN ORGANIC FARMING

1. Soil Preparation Equipment
2. Seeding and Planting Equipment
3. Irrigation Equipment
4. Weeding and Pest Control Equipment
5. Harvesting Equipment
6. Composting Equipment
7. Miscellaneous Equipment
8. Energy-Efficient and Renewable Equipment
9. Automation and Smart Farming Tools

12. FUTURE OF ORGANIC FARMING

1. Growth Trajectory
2. Technological Advancements
3. Soil Health Revolution
4. Genetic Innovation within Organic Principles
5. Urban and Vertical Organic Farming
6. Circular Economy Integration
7. Market Evolution
8. Policy and Support
9. Challenges and Opportunities

13. LIST OF INGREDIENTS USED IN ORGANIC FARMING

1. Soil Amendments and Fertilizers
2. Pest and Disease Control Ingredients
3. Soil Conditioners
4. Plant Growth Enhancers
5. Weed Control Ingredients
6. Animal-Based Inputs
7. Microbial Inputs
8. Water-Saving and Soil Moisture Retention Aids

14. ROLE OF LIVESTOCK IN ORGANIC FARMING

1. Role of Livestock in Organic Systems
2. Organic Livestock Standards
3. Pasture Management in Organic Systems
4. Integration of Crops and Livestock
5. Challenges in Organic Livestock Production
6. Animal Welfare in Organic Systems
7. Organic Livestock Products
8. Future Directions in Organic Livestock Farming
9. How do Livestock Contribute to Soil Health in Organic Farming?
10. What Role does Animal Manure Play in Organic Farming?

11. How does Manure Improve Soil Structure?

15. ORGANIC FARMING IN RICE

1. Objectives of Organic Farming
2. Traditional Practices
3. Aspects of Modern Agriculture
4. Important Regulations for Organic Farming
5. Nutrient Requirement
6. Ecofriendly Management of Pests and Diseases in Rice
7. Conservation of Native Natural Enemies to Enhance *in situ* Biological Control in Rice
 1. *Components of Eco-Friendly Disease Management*
 2. *Methods of Application*
8. Conclusion

16. RICE VARIETIES FOR ORGANIC FARMING

1. What is Organic Agriculture?
2. Selection of Rice Varieties for Organic Farming
3. Weed Control
4. Soil Fertility
5. Insects and Diseases
6. Specialty Rices for Organic Farming
7. Varieties for Special Systems of Cultivation

17. WEED MANAGEMENT IN ORGANIC RICE

1. Development of Weed Control Methods
2. Problems from Chemical Weed Control

3. Weed Control in Organic Farming

1. *Preventive Methods*
2. *Cultural Methods of Weed Control*
3. *Mechanical Methods*
4. *Biological Control of Weeds*

4. Bioherbicides

1. *Some Basic Principles for Weed Management in Organic Farming*

18. PROCESSING AND VALUE ADDITION OF ORGANIC RICE

1. Quick Cooking Rice
2. Preparation of Instant Fried Rice
3. Instant Rice Noodles
4. Preparation of Dried Starch from Rice Soup

20. BIOTECHNOLOGICAL APPROACH IN ORGANIC RICE FARMING

1. Why Biotechnology ?
2. Important Benefits that have Emerged from the Transgenic Rice Research
3. Food and Agriculture Organization (FAO) of UN Recommendation

23. AVAILABLE ORGANIC MATERIALS AND PLANT NUTRIENTS

1. Livestock Wastes
2. Crop Residues and Aquatic Weeds
3. Rural and Urban Wastes
4. Agro-Industrial Wastes
5. Fisheries and Marine Industry

25. BIOMASS PRODUCTION OF ACACIA NILOTICA

1. Material and Methods
2. Results and Discussion
3. Summary

26. ORGANIC FERTILIZER : A SUPPLEMENTARY NUTRIENT SOURCE FOR SUGARCANE

1. Experiment and Results
 1. *Azotobacter*
 2. *Azospirillum*
2. Phosphate Solubilizing Microorganisms
3. Summary

28. EFFECT OF ORGANIC FERTILIZER ON SORGHUM

1. Material and Methods
2. Results and Discussion
3. Summary

29. USE OF BIO-INOCULANTS FOR RECYCLING OF BANANA WASTES

1. Material and Methods
2. Results and Discussion

31. ORGANIC COMPOST

1. Use
2. Compost Quality
3. Benefits of Organic Compost
4. Overview of the Composting Process
5. Process of Composting

32. ORGANIC MANURES, THEIR NATURE AND CHARACTERISTICS

1. Farmyard Manure
2. Compost
3. Sheep and Goat Manure
4. Poultry Manure
5. Oil-Cakes
6. Meal Group of Manures
7. Sewage, Sludge and Sullage

33. PRODUCTION OF ORGANIC COMPOST

1. Composting
2. Importance of Composting
 1. *Maximizing the Nutrients Availability from Agricultural Compost*
 2. *Effect on Soil and Crop*
 3. *Method of Spreading Compost*
 4. *Rate of Application*
 5. *Time of Application*
 6. *Classification of Composting*
 7. *Kinetics of Composting*
 8. *Moisture Content*
 9. *Ingredients to Avoid*
 10. *Microbes Involved in Composting*
3. Design Criteria
 1. *Type and Amount of Compost*
 2. *The Climate*
 3. *Availability of Land*
 4. *Handling*
4. Practical Method of Making Compost
 1. *Considerations in Building a Compost Heap*
 2. *Managing the Compost Heap*
 3. *Curing*
 4. *Practical Applications Composting*
5. Biogas Technology
 1. *Composition of Slurry*
 2. *Slurry for Agriculture*
 3. *Transfer of Biogas Technology*

6. Growing of Mushrooms
 1. *Conventional Types of Compost*
 2. *Compost Making and Spawning*
 3. *The Work Schedule*
7. Suggestions

34. HOW TO STARTING AN ORGANIC COMPOST BUSINESS

1. Research and Planning
2. Develop a Business Plan
3. Choose a Composting Method
4. Source Raw Materials
5. Acquire Equipment
6. Set Up a Facility
7. Start Composting
8. Packaging and Branding
9. Marketing and Distribution
10. Explore Additional Revenue Streams
11. Monitor and Scale Up

36. MARKETING OF ORGANIC COMPOST

1. Market Trends and Demand Analysis
2. Target Customers
3. Key Marketing Strategies
4. Distribution Channels
5. Challenges in Marketing Organic Compost
6. Opportunities for Growth
7. Case Studies and Success Stories

37. ORGANIC WASTE RECYCLING

1. How to Recycle Organic Waste?
2. What is Organic Waste?
3. What Materials can be Considered Organic Waste?
4. What is Organic Waste Recycling?
5. Organic Waste Recycling Process
6. General Organic Waste Recycling Steps

38. POST-HARVEST HANDLING AND PROCESSING

1. Planning for Post-Harvest Quality
2. Harvest Handling
3. Post-Harvest Storage
4. Sanitation and Water Disinfection
5. Other Post-Harvest Treatments
6. Processing Techniques
7. Packaging and Transportation
8. Economic and Social Considerations

9. Key Considerations for Packaging Organic Produce to Maintain Shelf Life

1. *Material Selection*
2. *Environmental Control*
3. *Physical Protection*
4. *Ventilation*
5. *Food Safety*
6. *Transparency and Traceability*
7. *Sustainability*
8. *Product-Specific Considerations*

39. PACKAGING OF ORGANIC COMPOST

1. Importance of Packaging in Organic Compost Industry
2. Packaging Materials for Organic Compost
3. Packaging Design Considerations
4. Packaging Process
5. Sustainability and Environmental Considerations
6. Market Trends and Consumer Preferences

40. EXPORT MARKETING OF ORGANIC COMPOST

1. Product Development and Quality Assurance
2. Market Research and Targeting

3. Marketing Strategies
4. Promotion and Communication
5. Logistics and Compliance
6. Continuous Improvement
7. What are the Key Markets for Organic Compost Exports?
 1. *Top Importing Countries*
 2. *Emerging Markets*
 3. *Market Drivers*

34. ORGANIC NUTRIENT

1. Soil Populations and Processes
2. Use of Biofertilizers
3. Enrichment of Compost with Microbial Inoculants
4. Nitrogen Fixing Microbs
 1. *Rhizobium*
 2. *Leguminous Plants / Rhizobiaceae Symbiosis*
 3. *Azotobacter Inoculant*
 4. *Azospirillum Inoculant*
 5. *Blue-Green Algae Inoculant*
 6. *Multiplication of BGA*
 7. *Frankiaceae Symbiosis*
 8. *Large Scale Inoculum Production*
 9. *Significance of BNF*
5. Mycorrhiza
 1. *Roots as Sinks and Sources of Nutrients and Carbon in Agricultural Systems*
 2. *Importance of Mycorrhiza*
 3. *Benefits to Plants*
 4. *Other Roles in Ecosystems*
 5. *Values of People*
 6. *Mycorrhizal Interactions with Plants and Soil Organisms in Sustainable Agroecosystem*
 7. *Symbiosis*
 8. *Root System Form*
 9. *Soil and Site Factors Influencing Mycorrhizas*
 10. *Characteristics of Fungal Isolates*
 11. *Ectendomycorrhizae*
 12. *Host Plant*
 13. *How Mycorrhizas Work*
 14. *Mycorrhizal Fungi and Pathogen Interaction*
 15. *Nitrogen Transfer in Mycorrhizal Plants*
 16. *Nitrogen Nutrition in Mycorrhizal Plants*

17. *Enhanced Crop Production*

18. *Phosphorus Fertility*

19. *Future Thrusts*

35. INDUSTRIAL WASTES AS SOURCES OF PLANT NUTRIENTS

1. Significance of Waste Recycling
2. Chemical Characteristics of Wastes and Utilization
3. Effect on Crops Yield and Soil Properties
 1. *Effect on Crop Yields*
 2. *Pathogens and Health Hazards*
 3. *Heavy Metals and Associated Problems*
 4. *Effect on Soil Properties*
 5. *Problems in Waste Utilization*
 6. *Future Research Needs*

36. ROLE OF ORGANIC FERTILIZER IN UPLAND CROP PRODUCTION

1. Nitrogen-Fixing Bacterial Inoculants
2. Phosphate Solubilizing Microorganisms
3. Vesicular-Arbuscular Mycorrhizae (VAM)
4. Plant Growth Promoting Rhizobacteria
5. Future Research Needs
6. Strategy for Successful Use of Biofertilizers

37. PLANT LAYOUT DESCRIPTION OF ORGANIC COMPOST

1. Raw Material Reception Area
2. Preprocessing Section
3. Composting Area
4. Maturation or Curing Area
5. Screening and Sorting Area
6. Storage and Packaging Area
7. Waste Management and Recycling
8. Utility and Support Systems
9. Administrative and Control Area

39. BIS STANDARDS

40. PHOTOGRAPHS OF PLANT AND MACHINERY WITH SUPPLIERS CONTACT DETAILS

- Compost Machine
- Sewage Treatment Plant
- Fully Automatic Organic Waste Converter
- Food Waste Compost Machine
- Fertilizer Spreaders - Square
- Mulcher
- Hydraulic Post Hole Digger With Hoist
- Paddy Cutting Machine

40. PLANT LAYOUT AND PROCESS FLOW CHART & DIAGRAM

41. REFERENCES

About Niir

NIIR Project Consultancy Services (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. Its various services are: Pre-feasibility study, New Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Preparation of Project Profiles and Pre-Investment and Pre-Feasibility Studies, Market Surveys and Studies, Preparation of Techno-Economic Feasibility Reports, Identification and Selection of Plant and Machinery, Manufacturing Process and/or Equipment required, General Guidance, Technical and Commercial Counseling for setting up new industrial projects and industry. NPCS also publishes various technology books, directories, databases, detailed project reports, market survey reports on various industries and profit making business. Besides being used by manufacturers, industrialists, and entrepreneurs, our publications are also used by Indian and overseas professionals including project engineers, information services bureaus, consultants and consultancy firms as one of the inputs in their research.