The Complete Technology Book on Vermiculture and Vermicompost (Earthworm) with Manufacturing Process, Machinery Equipment Details & Plant Layout 3rd Edition

Author:- Dr. Himadri Panda
Format: paperback
Code: NI116
Pages: 384
Price: Rs.1475**US$** 125
Publisher: NIIR PROJECT CONSULTANCY SERVICES
Usually ships within **5** days

Advantage of vermicomposting is that it composts the wastes of rural areas. They clean our villages by using unnecessary organic and non-organic materials. Improves the texture of the soil and its ability to store water. Improves root growth and the multiplication of beneficial soil microorganisms by providing optimum aeration to the soil.
Vermicompost (vermi-compost) is a mixture of decomposing vegetable or food waste, bedding materials, and vermicast created by the decomposition process using various species of worms, usually red wigglers, white worms, and other earthworms. This is known as vermicomposting, and the practise of raising worms for this purpose is known as vermiculture. Sewage treatment can also be done with vermicomposting.
The Global Vermicompost Market is reach growing at a CAGR of 16.74%. The Growth of the global vermicompost market is caused by various factors, such as improved soil aeration, improved water holding capacity, better nutrient cycle, and enriched soil with micro-organism, helps in plant root growth and structure, enhanced germination. The vermicomposting method is used in organic farming. Increasing the use of sustainable agricultural practices, such as vermicomposting along with Government support for organic farming is significantly contributing to the global vermicompost market growth. Vermicompost offers plants with necessary nutrients and helps in plant diseases suppression. Worm castings often comprise 7 times more phosphorus, 11 times more potassium, and 5 times more nitrogen than ordinary soil, which are crucial minerals required for plant growth.
Vermiculture and Vermicompost (Earthworm), as well as their manufacturing methods, are all covered in depth in this book. It also offers photos of equipment as well as contact information for industrial providers.
This book is a one-stop shop for everything you need to know about the Vermiculture and Vermicompost (Earthworm) industry, which is ripe for manufacturers, merchants, and entrepreneurs. This is the only book that goes into great detail about Vermiculture and Vermicompost. It's a genuine feast of how-to material, from concept to equipment buying.

5. EARTHWORMS: FOR CULTURE
Worms for Vermiculture
Earthworm Breeding
Vermicompost
Collecting local Earthworms

6. WHY VERMICOMPOSTING
Fertilizers use and Deterioration of Soil Environment
Testing the Impact of Vermicomposting
Nitrogen and Humification in Vermicomposting
Vermicompost - a Quality Manure
Recycling of Wastes through Vermi-Composting
Minimizing Pollution Hazard
Providing Growth Promoters
Vermicomposting : Advantages
Black Gold (Worm Castings) from Worms
Adverse Effects on Crops
Economic Vibility

7. VERMICOMPOST HIGH-GRADE FERTILIZER
Crucial to Organic Agriculture
Wide-spread use in the Tropics and Sub-Tropics
Flexible Method
Rapid Conversion
What Exactly is Vermicompost?
Characteristics
Conversion Processes
Plant Nutritionists - Ncouragement of Soil Fertility
Soil Conditioning and Plant Strengthening Effect
Minimisation of Solid Waste with Low Toxicity and Containing Heavy Metals
Which Species of Earthworms?
Eisenia Fetida - Hard Workers
Transformation of the Organic Material:
Reproduction
Under Perfect Conditions
Further Uses
Feed
Source Material for the Fodder
Nutritional Balance in Feed
Feeding Process
Various Worm Composting Methods
Size of the Worm Compost Heap
Climate
Construction of a Worm Farm
Harvesting the Vermicompost
Storage of Vermicompost
Spreading the Vermicompost
The Liquid Variety: Vermiwash
A Method to Prepare Vermiwash
Application of Vermiwash
Management
Great Potential for Large and Small Organic Farms alike

8. VERMICULTURE AND VERMITECH
How to Start Vermiculture
Preparation of Vermibeds
Setting Up of a Vermiwash Unit
An Enterprise
Economics of Vermitech (In Indian Rupees)
Construction and Maintenance of a Twin Unit System Marketing

9. VERMICOMPOSTING MATERIALS
Animal Dung
Agricultural Waste
Forestry Wastes
City leaf Litter
Waste Paper and Cotton Cloth etc.
City Refuge
Biogas Slurry
Industrial Wastes
Feeding Vermicomposting Materials
What should not be Fed to Earthworms?
How much Earthworm Eat
How to Feed Earthworm?
Vermicomposting : Types
Small Scale or Indoor Vermicomposting
Large Scale or Outdoor Vermicomposting
In-situ Culturing of Earthworms
Simple Promotion of Vermic Activity in Fields
Development of Eathworms in Gardens and Orchards Large Scale
Commercialized Vermicomposting in Open Heaps
Vermicomposting : Requirements
Environmental Requirements
Air (Aeration)
Moisture Content
Temperature
How to Construct a Worm Bin
Bedding Materials
Other Requirements
Container
Containers : Types
Small Barrel or Drum Composter
Large Barrel or Drum Composter
Three-chambered Bin
Making of three-chambered bin
Bedding Material
Ideal Conditions for Life of Earthworms
Food for Worms
Adding Food Waste
Proper Ingredient Mixture
Browns
Greens
Particle Size
Fertilizer and Lime
pH

Flower or Garden pots
In Horticulture
In Agriculture
Vermicomposts : Characterization
Vermiwash
Problems in Using Vermiwash
Earthworm Paste
Vermicomposting : General Procedure at Home
Vermicomposting : General Procedures at Agricultural Farms
Vermicomposting : Kiss Plan
Advantages of KISS Plan
Step 1: Windrow Preparation
Important Considerations
Step 2: Extending the Windrow
Step 3: Making Quality Castings
Step 4: Moisture and Irrigation
Step 5: Windrow Cover
Step 6: Harvesting
Earthworms Predators and Parasites
Mite pests in Earthworm Beds
White or Brown Mites
Red Mites
Mite Prevention
Removal of Mite
Parasites and pathogens

13. EARTHWORMS : END USES AND POTENTIAL
Earthworms in Medicine
Earthworms as Feed
Economic Potential
Legal Constraints
Conclusion

14. METHODS OF EARTHWORMS
MEASUREMENT
Sampling Methods
Hand Sorting
Principle
Materials
Procedure
Washing and Sieving
Principle
Materials
Procedure
Use of Chemical Repellants
Principle
Materials
Procedure
Electrical Methods
Principle
Materials
Procedure
Trapping Methods

Materials
Procedure
Other Method
Flotation
Heat Extraction
Number of Casts
Measurement of Earthworm Biomass
Storage and Identification
Storage
Identification
15. VERMICOMPOSTING: A WORLD SCENARIO
Grace McKellar Centre, Geelong, Victoria, Australia
Hobart City Council, Tasmania, Australia
National Institue of Environmental Health Sciences, Research Triangle Park, North Carolina, United States Newcastle City Council, New South Wales, Australia Oregon Soil Corporation, Beaverton, Oregon, United States
Pacific Southwest Farms, Ontairo, California, United States
Resource Conversion Corporation/Canyon Recycling, San Diego, California, U.S.
Rideau Regional Hospital, Perth, Ontario, Canada
San Quentin Prison, California
Seattle Kingdome Stadium, Seattle, Washington, United States Sovadec, La Voulte, France
Vermiculture Production Center, Pinar del Rio Province, Cuba Vermicycle Organics, Inc., Charlotte, North Carolina, United States
India
Green Cross Society of Mumbai, India
Indian Aluminum Co. Ltd, Belgaum, India
M.R. Morarka - GDC Rural Research Foundation, Jaipur
16. ROLE OF EARTHWORMS
In sustainable Agriculture
Organic Farming
Earthworms Activities
Soil Fertility and Texture
Soil Aeration
Water Impercolation
Decomposition and Moisture

17. MONITORING WORM BED ENVIRONMENT
Moisture Control
Keeping Beds Warm during Winter
Lighting
Earthworm Predators or Annoyances
• Flies
• Mites
White or Brown Mites
Red Mites
• Hammerhead Worms
• Centipedes
• Ants
• Black Soldier Fly Larvae
Troubleshooting Worm Bed Conditions
pH
Bedding Too Dry
Red Mite Infestation

About NIIR

NIIR PROJECT CONSULTANCY SERVICES (NPCS) is a reliable name in the industrial world

for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery, Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes varies process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

NIIR PROJECT CONSULTANCY SERVICES, 106-E, Kamla Nagar, New Delhi-110007, India.
Email: npcs.india@gmail.com **Website**: NIIR.org

Fri, 02 May 2025 02:13:19 +0000