



# THE COMPLETE TECHNOLOGY BOOK ON BIOFERTILIZER AND ORGANIC FARMING

(POTASH, GREENHOUSE FARMING, HYDROPONIC FARMING, PELLET FERTILIZER, SEAWEED FERTILIZER, BIOGAS WITH MANUFACTURING PROCESS, MACHINERY EQUIPMENT DETAILS)

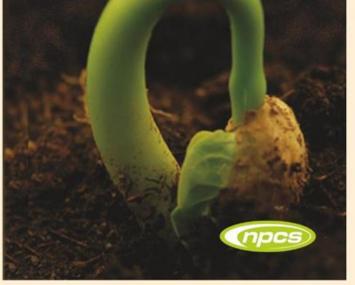
# **3RD EDITION**

The business of Biofertilizer and Organic Farming is an exciting and rapidly growing industry. In recent years, it has become increasingly popular among farmers, gardeners, and other agricultural professionals who are looking for more sustainable, natural alternatives to traditional chemical fertilizers and pesticides. Biofertilizers and organic farming provide a number of benefits, including improved soil health, higher crop yields, and reduced environmental impact. This blog post will explore the economic, social, and environmental aspects of the business of biofertilizer and organic farming, and will offer insight into why this industry is growing so quickly.



#### The Complete Technology Book on Biofertilizer and Organic Farming

(Potash, Greenhouse Farming, Hydroponie Farming, Pollet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details)



https://www.niir.org www.entrepreneurindia.co



# INTRODUCTION

Biofertilizer and Organic Farming (Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details) book on cultivating and producing crops and livestock with the use of biofertilizers. Biofertilizers are natural sources of nutrients that are applied to plants, typically to provide additional sources of nitrogen, phosphorus, and potassium, which are all essential elements for healthy crop growth. Organic farming is a type of agricultural production that does not involve the use of synthetic fertilizers or pesticides and relies on natural methods, such as crop rotation, companion planting, and the use of organic amendments to improve soil fertility.

Visit this Page for More Information: Start a

**Business in Fertilizer Industry** 

<u>www.entrepreneurindia.co</u>



# AN OVERVIEW ON BIOFERTILIZER AND ORGANIC FARMING

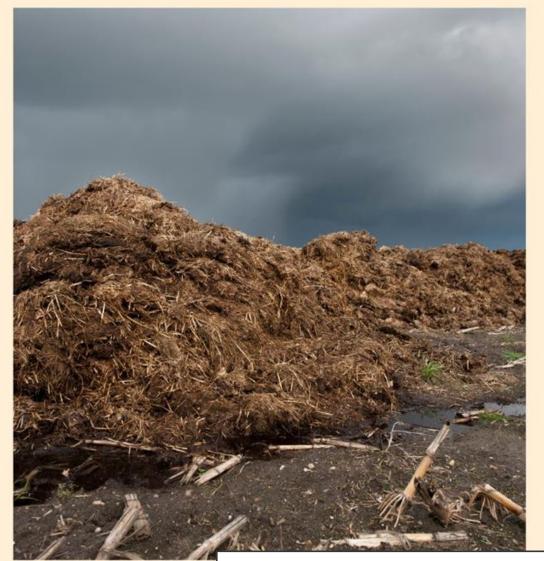
Organic fertilizers derived from natural sources such as plants, animals, and microorganisms are known as biofertilizers. They are high in nutrients such as nitrogen, phosphorus, and potassium. Biofertilizers are environmentally friendly, longlasting, and less expensive than synthetic fertilisers. Biofertilizers can be applied directly to the soil to improve fertility and crop yield. They are also used in conjunction with other organic farming practises to improve soil health, such as composting and mulching.

**Related Business Plan: <u>Biofertilizer Manufacturing Business</u>** 





Biofertilizers contribute to a reduction in the use of chemical fertilisers, which can pollute water sources and harm the environment. Biofertilizers improve crop quality by increasing nutrient content and improving taste, in addition to their environmental benefits. They also improve plant resistance to diseases and pests. Organic farming is a subset of agriculture that emphasizes natural methods such as composting, crop rotation, and the use of organic fertilisers and pest control. Organic farmers grow their crops without the use of synthetic fertilisers, pesticides, or genetic engineering.





Instead, they rely on naturally occurring nutrients in the soil and organic matter, such as compost and manure, to provide essential nutrients and minerals to their plants. Organic farmers also use traditional farming methods that promote biodiversity, soil fertility, and water conservation. Organic farming focuses on producing food in an environmentally friendly manner while also respecting animals and nature.



**Read Similar Articles:** FERTILIZERS – INORGANIC AND ORGANIC



# Market Outlook of Biofertilizer and Organic Farming

The global biofertilizers market is expected to grow at a CAGR of 12.04% during the forecast, from \$2.02 billion to \$4.47 billion. Organic farming is one of the fastest-growing agricultural methods in the world, with 72.3 million hectares of agricultural land under organic agriculture management globally, according to the Research Institute of Organic Agriculture. The use of synthetic fertilisers contaminated the soil and killed microorganisms. Organic farming is rapidly becoming popular in order to reduce soil pollution. Organic agriculture makes the best use of local resources to improve soil fertility while avoiding agrochemicals, GMOs, and many synthetic compounds used as food additives.



The growing demand for organic food motivates farmers to use bio-based fertilisers that are compatible with organic food production. Higher product appreciation and adoption among farmers in developing and developed economies are expected to positively influence the growth of the **Biofertilizers Market in the coming** years.

Related Feasibility Study Reports: <u>Biofertilizer</u> And Phosphate Rich Organic Manure (prom)





Furthermore, agricultural producers' active participation in ramping up their biological agriculture, such as bio-origin fertilizers, is expected to boost the growth of the Biofertilizers Market in the coming years. Furthermore, the rise in food product demand and per capita income has created enormous opportunities for the growth of the Biofertilizers Market in various regions and countries around the world.

Read our Books Here: <u>The Complete Technology Book on Biofertilizer</u> and Organic Farming (Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details) 3rd Edition





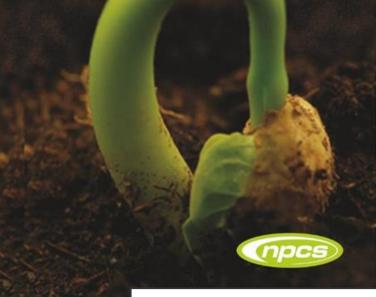
# Conclusion

The book's Biofertilizer and Organic Farming (Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details) main contents are Biofertilizer, Organic Farming, Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas, Anaerobic Digesters, Biopesticides, and Organic Manure. The Manufacturing Process, Machinery Equipment Details, and Photographs with Suppliers Contact Details are also given.



#### The Complete Technology Book on Biofertilizer and Organic Farming

(Potash, Greenhouse Farming, Hydroponie Farming, Pellet Fartilizer, Seaweed Fartilizer, Biogas with Manufacturing Process, Machinery Equipment Details)





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

> Watch other Informative Videos: <u>Organic</u> <u>Farming and Biofertilizer Production</u>



# TABLE OF CONTENTS THE BOOK



# **1. INTRODUCTION**

- 1.1 Role
- **1.2.** The reason for using biofertilizers
- **1.3. Benefits**
- 1.4. Types
  - 1.4.1. Rhizobium
  - 1.4.2. Azotobacter
  - 1.4.3. Azospirillum
  - 1.4.4. Azolla
- 1.4.5. Plant growth-promoting rhizobacteria (PGPR)
  1.4.6. Potassium Mobilizing Biofertilizer (KMB)
  1.4.7. Zinc Solubilizing Biofertilizer (ZSB)
  1.4.8. Phosphate Absorbers Mycorrhizaeaeaeae
  1.5. Components
  - 1.5.1. Symbiotic nit rogen-fixing bacteria 1.5.2. Symbiotic nit rogen-fixing Cyanobacteria





www.entrepreneurindia.co

- 1.5.3. Free-living nitrogen-fixing bacteria
- 1.5.4. Other Components of biofertilizers
- **1.6. Compost Biofertilizers**
- 1.7. Methods

# 2. HOW TO START A BIOFERTILIZER BUSINESS

- 2.1. Plan
- 2.2. The growth potential of the Biofertilizer business
- 2.3. Different types of fertilizers to start your fertilizer business
  - 2.3.1. Organic fertilizer
  - 2.3.2. Chemical fertilizer
  - 2.3.3. Biofertilizer business: Things to consider
- 2.4. Starting a Biofertilizer business in India: A step-by-step guide
  - 2.4.1. Creating a business plan
  - 2.4.2. A suitable location must be selected and leased

2.4.3. Business permit, licence, and legal documents required for organic fertilizers

2.4.4. Supply Expertise



2.4.5. Organize the laboratory and manufacturing facility in the house2.4.6. Machines & Equipment2.4.7. Refrigerator

# **3. TYPES OF BIOFERTILIZERS**

- 3.1. Types of Biofertilizers
  - 3.1.1. Bio NPK
  - 3.1.2. Acetobacter
  - 3.1.3. Azospirillum
  - 3.1.4. Mycorrhiza
  - 3.1.5. Phosphate Solubilizing Bacteria
  - 3.1.6. Potassium Solubilizing Bacteria
- 3.2. Biofertilizer Applications
- 3.3. What is the purpose of using biofertilizers?
  - 3.3.1. Advantages

# 4. BIOFERTILIZER PRODUCTION METHOD AND PROCESS

4.1. Purpose





#### 4.2. Production

- 4.2.1. Strain Choice
- 4.2.2. Plant Pelletizing
- 4.2.3. Vaccinant Transporters
- 4.3. Quality Standards for Inoculants
- 4.4. Packaging
- 4.5. Storage
- 4.6. Immunization of the Field
- 4.7. Preparation
- 4.8. Production Line from Animal Wastes
- 4.9. Cow Dung Fertilizer Machine
- 4.10. Dry Cow Dung Fertilizer by Using Fertilizer Machines
- 4.11. Types of Cow Dung Fertilizer Machines Use for Composting
- 4.12. Compost Windrow Turner for Cow Manure Composting
- 4.13. Manure Making Machine
- 4.14. Crop Growth
- 4.15. Aims of Production
- 4.16. Rotary Cooler





- 4.17. Cooling Fertilizer Pellets
- 4.18. Fertilizer Dryer
- 4.19. What Drying Technology Does The Fertilizer Dryer Use?
- 4.20. Smart Rotary Drum Dryer
- 4.21. Drum Dryer
- 4.22. Fertilizer Packing Machine
- 4.23. Powdery Fertilisers Packing Facility
- 4.24. Package Organic Fertilisers
- 4.25. Fertilizer Mixer for Blending Plant
- 4.26. Hot selling double shafts horizontal cow dung mixer fertiliser equipment
- 4.27. Tiny Chicken Manure Fertiliser Mixer
- 4.28. Pan Mixer Machine
- 4.29. BB Fertilizer Blending Equipment for Mixed Fertilizer Granules Processing
- 4.30. Batch Mix Plant
- 4.31. Fertilizer Crusher
- 4.32. Vertical Crushing
- 4.33. Chain Crusher
- 4.34. Hammer Mill Crushing





4.35. Hot Semi-Wet Crusher

4.36. Cage Crush Machine

4.37. Small Straw Grinders

4.38. Urea Fertilizer Powder Grinding Machine

4.39. High-Quality Materials for Smoother Operation

4.40. Organic Fertilizer Granulator

4.41. Uses of Organic Fertilizer Granulator

4.42. Raw Materials

4.43. Organic Fertilizer Using Chicken Manure

4.44. Organic Fertilizer from Food Waste

4.45. Amino Acid Organic Fertilizer

4.46. Setup an Organic Fertilizer Manufacturing Unit

4.47. Compost Machine

4.48. Use

4.48.1. Windrow & Trench

4.49. Hydraulic Organic Waste Crawler

4.50. Forklift Type Manure Compost Turner Machine

4.51. Cow Dung Compost Windrow Turner





- 4.52. Poultry Waste Compost Fertilizer Machine
- 4.53. Chain Plate Type Compost Fertilizer Making Machine

## **5. SIMPLIFIED ANAEROBIC DIGESTERS FOR BIOFERTILIZER**

- 5.1. Abstract
- 5.2. Foreword
- 5.3. Batch Digester Plant
- 5.4. Plug Flow Digester Plant
- 5.5. Covered Langoon Biogas System
- 5.6. Continuous Expansion Digester
- 5.7. Tests on a Small Electric Generator set Fuelled by Biogas
- 5.8. An Economic Evaluation of the Plants
- 5.9. Conclusions

# 6. OPERATING CONDITIONS FOR ANAEROBICDIGESTION OF BIOFERTILIZER

- 6.1. Abstract
- 6.2. Introduction
- 6.3. Design of the Experiment
- 6.4. Results and Discussion





6.4.1. Effect of the initial total solids (TS) concentration on
6.4.2. Effect of hydraulic retention time (0) on
6.4.3. Effect of temperature on
6.4.4. Effect of mode of operation on

## **7. POTASH PRODUCTION PROCESS**

- 7.1. Comminution
- 7.2. Potash Flotation Process
- 7.3. Common Salt or Halite: NaCl
- 7.4. Crushing Section
- 7.5. Scrubbing and Desliming
- 7.6. Grinding and Classification
- 7.7. Conditioning
- 7.8. Potash Flotation
- 7.9. Thickening, Filtering and Brine Recovery
- 7.10. Pumping of Products

# 8. APPLICATION AND EVALUATION TECHNIQUES

8.1. Different Methods for Biofertilizer Inoculation





8.1.2. Seed inoculation

#### 8.2. Top dressing of Biofertilizers

- 8.2.1. Granular biofertilizers
- 8.2.2. Solarisation of FYM/Compost
- 8.2.3. Granular biofertilizer mixed with seed
- 8.2.4. Broadcasting of granular biofertilizers
- 8.2.5. Frequency of inoculation
- 8.2.6. Liquid inoculation of Biofertilizers

8.3. Methods of application of liquid inoculation

8.3.1. Drenching by Sprayers

8.3.2. Application in root zone

8.3.3. Culture pellet

**8.4. Methods of Application of Other Biofertilizers** 

8.4.1. Blue Green Algae

8.4.2. Azolla





8.4.3. As green manuring

8.4.4. Azolla dual cropping

#### 8.5. Azotobacter

8.5.1. Preparation and use of Azotobacter inoculant

8.5.2. Application

8.6. Azospirillum

8.7. Mycorrhizae

8.7.1. Endomycorrhizae 8.7.2. Ectomycorrhizae

8.8. Foliar Biofertilizer

8.9. Humar

8.10. Humic Acid 8.10.1. Intorduction 8.10.2. Application 8.10.3. Soil 8.10.4. Foliar 8.10.5. Seed treatment





8.10.6. Soil Benefit
8.10.7. Root
8.10.8. Seeds
8.10.9. Plants
8.10.10. Precautions

8.11. Different Media Used to Study Biofertilizer

8.11.1. Growth Media for Rhizobium

#### 8.12. Media for Testing Nodulating Ability of Rhizobium

8.12.1. Isolation of Frankia

8.13. Media Used

8.14. Precautions in handling

#### 9. CROP RESPONSE TO BIOFERTILIZERS

9.1. Symbiotic Nitrogen Fixation

9.1.1. Rhizobium

9.2. Azolla

9.3. Nonsymbiotic Nitrogen Fixation

9.3.1. Blue Green Algae (BGA)





- 9.4. Azotobacter
- 9.5. Azospirillum
- 9.6. Phosphate Solubilizers and Fixers

9.6.1. Mycorrhiza

- 9.7. Phosphate Solubilizing Microganisms
- 9.8. Factors Affecting Crop Response to Biofertilizers
- 9.9. Host Response to Biofertilizers
- 9.10. Interaction of Inoculants with other Nutrients
- 9.11. Multi-Microbial Inoculation
- 9.12. Compatability Between Biofertilizers and Chemical Fertilizers

9.13. Adaptive Trials

# **10. BIOGAS PRODUCTION FROM ORGANIC BIOFERTILIZER**

10.1. Abstract

**10.2. Introduction** 

**10.3. Materials and Methods** 

10.3.1. Organic Wastes





10.3.1. Starter

10.3.2 Analytical procedures

**10.4. Experimental** 

**10.5. Results and Discussion** 

10.6. Biogas Production from Geranium Flour (GF) 10.6.1. Biogas Production from Akalona (AK) 10.6.2. Biogas Production from Watermelon Residue (WR)

- 11. BIOGAS FROM LIQUID BIOFERTILIZER DERIVED FROM BANANA AND COFFEE PROCESSING
  - 11.1. Abstract
  - 11.2. Introduction
  - 11.3. Results

12. STEPS FOR HOW TO START ORGANIC FARMING 13. ORGANIC FARMING

**13.1. Pollution Problems with Fertilizers** 





13.1.1. Water Pollution 13.1.2. Atmospheric pollution 13.1.3. Damage to crops and soils 13.1.4. Heavy Metal Contamination **13.2. Environment Restoration with Fertiliser 13.3.** Pollution Abatement Startegies 13.4. Organic Farming 13.5. Why Organic Farming **13.6. Basic Concepts of Organic Farming** 13.6.1. Integrated Plant Nutrient Supply Management (IPNSM) 13.6.2. Intergrated Insect Pest and Disease Management 13.6.3. Integrated Soil and Water Management **13.7.** Alternatives **13.8. Organic Manures 13.9. Plant Origin Pesticides** 13.10. Biopesticides 13.11. Bioherbicides





#### 13.12. Biofertilizers

13.12.1. Microorganisms as nutrient regulators
13.12.2. Organic Matter in Agroecosystem
13.12.3. Soil Microbial biomass
13.12.4. Nutrient Availability
13.12.5. Losses
13.13. Cultural Practies

# **14. METHODS AND TYPES OF ORGANIC FARMING**

14.1. A Step-By-Step Manual for Organic Agricultural Techniques

**14.2. Characteristics** 

- 14.3. Goals of Switching to Organic Farming
- 14.4. Different Methods of Organic Farming
  - 14.4.1. Crop Diversity
  - 14.4.2. Crop Rotation
  - 14.4.3. Biological Pest Control
  - 14.4.4. Soil Management
  - 14.4.5. Green Manure





14.4.6. Compost
14.4.7. Weed Management
14.4.8. Controlling Other Organisms
14.4.9. Livestock
14.4.10. Genetic Modification

### **15. ORGANIC MANURES**

**15.1. Organic Matter** 

15.1.1. Chemical nature of organic matter

#### 15.2. Organic Manures

15.2.1. Organic residues

15.2.2. Cow dung manure

15.2.3. Live stock wastes

#### 15.3. Green Manure

15.3.1. Importance of green manure

15.3.2. Green manure crops

15.3.3. Turning of green manure crops

15.3.4. Biological control of plant disease and green manure





15.3.5. Fate of green manures 15.3.6. Nutrient status 15.3.7. Compost 15.3.8. Sources 15.3.9. Methods 15.3.10. Indore method 15.3.11. Bangalore Method 15.3.12. NADEP Method 15.3.13. Role of microbes in Compost making **15.4. Vermicompost** 15.4.1. Vermi composting **15.5. Phospho-Compost** 15.6. Oil Cakes 15.6.1. Poultry waste compost **15.7. Organic Industrial Wastes** 15.8. Materials 15.8.1. Flyash





15.8.2. Coir pith 15.8.3. Pressmud 15.8.4. Phosphogypsum 15.8.5. Sewage and sewage sludge 15.8.6. Sugar factory waste and sugarcane trash **15.9. Biomethanation** 15.10. Constraints **16. BIOPESTICIDES** 16.1. Discovery **16.2. Development** 

16.3. Registration

**16.4. Biological Control of Insect** 

16.4.1. Fungal Insecticides
16.4.2. Bacterial Insecticides
16.4.3. Bacillus thuringlensis (BT)
16.4.4. Mode of action





16.4.5. The question of resistance 16.4.6. Commercial Prospects 16.4.7. Improvements in BT through genetic engineering 16.4.8. The BT protein and the efforts on recombinant DNA in this area 16.4.9. Limitations of BT 16.4.10. Safety 16.4.11. Viral Insecticides 16.4.12. Nuclear Polyhedrosis Virus 16.4.13. Protozon Insecticides 16.4.14. Possibilities of field application **16.5. Botanical Pesticides** 16.5.1. Pheamon trap 16.5.2. Trichocards **16.6.** Biological control of plant diseases 16.6.1. Soilborne diseases 16.6.2. Mehods for biocontrol 16.6.3. Biological Seed Treatment





#### 16.7. Foliar Diseases

16.7.1. Introduction 16.7.2. Selection of biocontrol agents 16.7.3. Formulation and delivery system 16.7.4. Improved efficacy 16.7.5. Commercialization **16.8. Nematodes as Biological Control Agents** 16.8.1. Production and Formulation **16.9. Biological Control of Nematodes 16.10. Biological Control of Weeds** 16.11. Role of Genetic Engineering

#### **17. SUSTAINABLE AGRICULTURE**

17.1. Definition

17.2. Dimensions

17.2.1. Perceptions

17.3. Components

17.3.1. Crop Diversification





17.3.2. Crop Rotation 17.3.3. Biological Nitrogen Fixation 17.3.4. Mixed Cropping 17.3.5. Soil Micorbes on Crops 17.3.6. Genetic Diversity 17.3.7. Integrated Nurient Management (INM) 17.3.8. Integrated Pest Management (IPM) 17.3.9. Sustainable Water Management 17.3.10. Post Harvest Technology 17.3.11. Extension Programmes 17.3.12. Sustainable Agriculture for India 17.3.13. Role of biotechnology 17.3.14. Government support to farmers 17.4. Conclusion

#### **18. GREENHOUSE CULTIVATION**

18.1. Designs and classification of greenhouse18.2. Classifications





#### 18.3. Poly House

18.4. Shade House

18.5. Orientation of greenhouse / polyhouse

18.5.1. Design

18.5.2. Orientation

18.5.3. Wind Effects

18.5.4. Size of the greenhouse

18.5.5. Spacing between greenhouses

18.5.6. Height of greenhouse

18.5.7. Structural Design

18.5.8. Components

18.5.9. Cladding Material

18.5.10. Plant Growing Structures

18.5.11. Environmental Factors Influencing Greenhouse Cultivation

18.5.12. Natural Ventilation

18.6. Heating of greenhouse

18.6.1. Heating Systems

18.6.2. Boiler





18.6.3. Unit Heaters 18.6.4. Infra-Red Heaters 18.6.5. Solar Heating **18.7. Environmental Control** 18.7.1. Temperature Control 18.7.2. Relative Humidity Control 18.7.3. Light Intensity Control 18.7.4. Quality of Light 18.8. Fan and Pad 18.8.1. Selection of Fan **18.9. Media Preparation and Fumigation** 18.9.1. Getting the media ready for greenhouse production 18.9.2. Gravel Culture 18.9.3. Media Ingredients and Mix 18.9.4. Pasteurization of Greenhouse Plant Growing Media 18.9.5. Fungicides and their effect on a few fungi 18.9.6. Temperature necessary to kill soil pests **18.10.** Fumigation in Greenhouse





#### 18.11. Drip Irrigation and Fertigation Systems in Greenhouse Cultivation

18.11.1. Watering System 18.11.2. Fertigation System 18.11.3. Fertliizers **18.12. Forms of Inorganic Fertilizers** 18.12.1. Slow Release Fertilizer 18.12.3. Liquid Fertilizer **18.13. Fertilizer Application Methods** 18.13.1. Constant Feed 18.13.2. Intermittent Application **18.14. Fertilizer Injectors** 18.14.1. Multiple Injectors 18.14.2. Fertilizer Injectors **18.15. General Fertigation Issues** 18.16. Problem-Solving **18.17. Inadequacies in fertilizers 18.18. Aluminum Surplus** 





18.19. Corrective Actions for Excessive Fertiliser
18.20. Harm Caused by Poisonous Gases
18.21. Unique Horticulture Techniques
18.22. Postharvest Handling Practices for Important Cut Flowers

## **19. GREENHOUSE FARMING**

**19.1. Introduction** 

19.2. The various greenhouse kinds

19.3. Advantages

**19.4. Types** 

19.4.1. Greenhouse Conventional Freestanding
19.4.2. Hoop House/High Tunnel
19.4.3. Greenhouse Lean-to or Attached
19.4.4. Cold Frames/Cold House
19.5. Advantages of Greenhouse Agriculture
19.6. Plants That Can Grow in a Greenhouse
19.6.1. Sweet Corn
19.6.2. Cucumbers





19.6.3. Baby Carrots
19.6.4. Pumpkins
19.6.5. Spinach
19.6.6. Tomatoes
19.6.7. Herbs
19.6.8. Garlic
19.6.9. String beans
19.6.10. Squash

#### **20. GREENHOUSES CONSTRUCTION**

20.1. Earthmoving and Level Surface

20.2. Set Out and Preparation of the Foundation

20.3. Reception of Materials. Preassembly at Work

20.4. Assembly of the Greenhouse

#### **21. HOW TO START A HYDROPONIC FARM BUSINESS**

21.1. Step 1: Create a Business Plan

21.1.1. What recurring costs are there for a hydroponic agricultural operation?

21.1.2. Who is the intended audience?





- 21.1.3. How can a hydroponic farm operation generate revenue?
- 21.1.4. How much can charge customers?
- 21.1.5. How much money can a hydroponic farm operation bring in?
- 21.1.6. How can increase the profitability of company?
- 21.1.7. What will the name of company be?
- 21.2. Step 2: Form a Legal Entity
- 21.3. Step 3: Register for Taxes
- 21.3.1. Taxes for small businesses
- 21.4. Step 4: Open a Business Bank Account & Credit Card
- 21.5. Step 5: Set Up Business Accounting
- 21.6. Step 6: Obtain Necessary Permits and Licenses
  - 21.6.1. Requirements for Federal Business Licenses
  - 21.6.2. Requirements for State and Local Business Licensing
  - 21.6.3. The Occupancy Permit
- 21.6.4. Food Regulations
- 21.7. Step 7: Get Business Insurance



www.entrepreneurindia.co



#### 21.8. Step 8: Define Brand

21.8.1. How to market and advertise a hydroponic farm operation

21.8.2. How to get new clients?

21.9. Step 9: Create Business Website

21.10. Step 10: Set Up Business Phone System

#### **22. HYDROPONIC FARMING**

22.1. Benefits

22.2. Similarity with Greenhouse Gardening

22.3. Advantages

22.4. Types

22.4.1. Aerated Nutrient Standing Solution

22.4.2. Outer Structure

22.4.3. Growing Method

22.4.4. System for Regulating Irrigation and Temperature

22.4.5. Hydroponic Equipment Installation

22.4.6. Provide Instruction for Mastering the Hydroponic Technique



www.entrepreneurindia.co



22.5. A Hydroponics System: How Does It Operate?

22.5.1. Soilless Gardening 22.5.2. Components

22.5.3. Rich Nutrients

22.5.4. Freshwater

22.5.5. Light

22.5.6. Oxygen

22.5.7. Root Support

22.5.8. Future Scope of This Technology

#### **23. HYDROPONIC FARMING EQUIPMENTS**

23.1. Water Pumps

23.2. Air Pumps and Air Stones for Hydroponics Systems

23.3. Water Heaters and Chillers

23.4. Hydroponic Reservoirs, Trays and Flood Tables

23.5. Reservoir Considerations

23.6. Reservoir Use in Various Hydroponic Systems

23.7. Ebb and Flow (Flood and Drain)





23.8. Hydroponic Lighting System Basics23.9. Grow Room Ventilation23.10. Climate Control23.11. Indoor Grow Tents

23.12. Additional Components

#### 24. PELLET FERTILIZER MANUFACTURING PROCESS

24.1. Mineral–Organic Addition
24.2. Mixing
24.3. Pelleting
24.4. Cooling
24.5. Sifting
24.6. Bagging

#### **25. SEAWEED FERTILISER**

25.1. Nomenclature and Taxonomy25.2. Production and Application Methods25.3. Nutrient Cycling





#### 25.4. Coastal Eutrophication

25.5. Bio-Remediation in Eutrophic Ecosystems

25.6. Blue Carbon

#### 25.7. Functions and Benefits of Seaweed Fertilizer

25.7.1. Fertilization
25.7.2. Soil Conditioning
25.7.3. Bio-Remediation of Polluted Soils
25.7.4. Integrated Pest Management
25.7.5. Soil Microbial Response to Seaweed Fertilizer Treatment
25.7.6. Resistance to Plant Pathogens

#### **26. SEAWEED FERTILIZER PRODUCTION PROCESS**

26.1. Seaweed Extract as Fertiliser

- **26.2. Sesweed Fertilizer Fermentation Vessel**
- 26.3. Principle of Fermentation Equipment
- 26.4. Ingredients of Seaweed Fertilizer

26.5. Uses





#### 26.6. Process

26.7. Features

26.8. Advantages of Seaweed Processing Plant

26.9. The way heat pump drying equipment operates

**27. BIS SPECIFICATIONS** 

**28. ISO STANDARDS** 

**29. CHINA STANDARDS** 

**30. PHOTOGRAPHS OF PLANT AND MACHINERY WITH SUPPLIERS CONTACT DETAILS** 

- Biofertilizer Packing Filling Machine
- Biofertilizer Fermenter
- Bioreactor Machine
- Bio Fertilizer Packaging Machine
- Liquid Bio Fertilizer Plant
- Waste Shredder





- Organic Waste Converter
- HP Steam Sterilizer Horizontal Autoclave
- Fertilizer Cleaner
- Fertilizer Pan Mixer
- Fertilizer Granule Making Machine
- Biofertilizer Granulator
- Blender Machine
- Pulverizer Mills
- Pesticide Making Machine
- Pellet Making Machine
- Fluid Bed Gasifier for Thermal & Electrical
- Compost Machine
- Bucket Elevator
- Steel Jacketed Tank
- Storage Tank
- Ultra Filtration System
- Water Soften Plant





- Tray Dryer
- Ribbon Mixer
- Air Compressor

#### **31. FACTORY LAYOUT AND PROCESS FLOW CHART & DIAGRAM**

- Biofertilizer Production Layout
- Biofertilizer Production Layout
- Organic Fertilizer Plant
- Biofertilizer Production Layout
- Organic Fertilizer Production
- Process of Production of Bio-Fertilizer
- Experimental Process for Biofertilizer
- Biofertilizer Quality Control



0





#Biofertilizer, #Organicfarming, #Potash, #Greenhousefarming, #Hydroponicfarming, #Pelletfertilizer, #Seaweedfertilizer, #Biogas, #Manufacturingprocess, #Machineryequipmentdetails, #Organic, #Greenhouse, #Hydroponic, #Pellet, #Fertilizer, #Seaweed, #Fertilizer, #Agriculture, #Biochar, #Biofertilizer, #Crop, #Fertilizer, #Getgreengetgrowing, #Gngagritech, #Greenstories, #Nature, **#Organic, #Organicfarming, #Soil, #Vermicompost, #Economy,** #Environmental, #Newbook, #NPCS, #Entrepreneurindia, #Book, #Startyourownindustry, #Startupbusinessideas, #Business, **#Handbook, #Businessplan, #Businessapportunity** 





## <sup>o</sup> For more Projects and further details, visit at:

## **Project Reports & Profiles**

## **BOOKS & DATABASES**

## Market Research Report



www.entrepreneurindia.co

<u>www.niir.org</u>

 $\cap$ 









Start a Business in Potential Countries for Doing Business, <u>Click Here</u>



Start a Business in Middle East, Click Here

Start a Business in Africa, Click Here

Start a Business in India, Click Here

Start a Business in Asia, Click Here



Business Ideas with Low, Medium & High Investment, Click Here



\*\*\*\*\*

Looking for Most Demandable Business Ideas for Startups, <u>Click Here</u> Looking for Startup Consulting Services, <u>Click Here</u>





#### **NIIR PROJECT CONSULTANCY SERVICES (NPCS)** can provide Process Technology Book on THE COMPLETE TECHNOLOGY BOOK ON

#### **BIOFERTILIZER AND ORGANIC FARMING**

(Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details)

<u>Read our Books Here:</u> The Complete Technology Book on Biofertilizer and Organic Farming (Potash, Greenhouse Farming, Hydroponic Farming, Pellet Fertilizer, Seaweed Fertilizer, Biogas with Manufacturing Process, Machinery Equipment Details) 3rd Edition



www.entrepreneurindia.co



## **OUR CLIENTS**

Our inexhaustible Client list includes public-sector companies, Corporate Houses, Government undertaking, individual entrepreneurs, NRI, Foreign investors, non-profit organizations and educational institutions from all parts of the World. The list is just a glimpse of our esteemed & satisfied Clients.

## Click here to take a look https://goo.gl/G3ICjV



www.niir.org

 $\cap$ 

000

 $\cap$ 

Select and Choose the Right Business Startup for You

#### (Instant Online Project Identification and Selection)

Finding the right startup business is one of the most popular subject today. Starting a business is no easy endeavor, but the time, effort, and challenges can be worth it if you succeed. To give yourself the best chance to be successful, take your time to carefully find the right business for you. We, at NPCS, endeavor to make business selection a simple and convenient step for any entrepreneur/startup. Our expert team, by capitalizing on its dexterity and decade's long experience in the field, has created a list of profitable ventures for entrepreneurs who wish to diversify or venture. The list so mentioned is updated regularly to give you a regular dose of new emerging opportunities.

Visit: <u>https://www.entrepreneurindia.co/project-identification</u>



#### **Download Complete List of Project Reports:**

#### Detailed Project Reports

Visit:- <u>https://www.entrepreneurindia.co/complete-project-list</u>

NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our Market Survey cum Detailed Techno Economic Feasibility Report provides an insight of market in India. The report assesses the market sizing and growth of the Industry. 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.

0

 $\cap$ 

0

 $\cap$ 



And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- Good Present/Future Demand
- Export-Import Market Potential
- Raw Material & Manpower Availability
- Project Costs and Payback Period

The detailed project report covers all aspect of business, from analyzing the market, confirming availability of various necessities such as Manufacturing Plant, Detailed Project Report, Profile, Business Plan, Industry Trends, Market Research, Survey, Manufacturing Process, Machinery, Raw Materials, Feasibility Study, Investment Opportunities, Cost and Revenue, Plant Economics, Production Schedule,



O

 $\bigcirc$ 

0

O



www.entrepreneurindia.co

Working Capital Requirement, uses and applications, Plant Layout, Project Financials, Process Flow Sheet, Cost of Project, Projected Balance Sheets, Profitability Ratios, Break Even Analysis. The DPR (Detailed Project Report) is formulated by highly accomplished and experienced consultants and the market research and analysis are supported by a panel of experts and digitalized data bank.

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in India along with its business prospects......<u>Read more</u>

0 0

0

 $\cap$ 

O

0

**Free Instant Online Project Identification and Selection Service** Our Team has simplified the process for you by providing a "Free Instant Online Project Identification & Selection" search facility to identify projects based on multiple search parameters related to project costs namely: Plant & Machinery Cost, Total Capital Investment, Cost of the project, Rate of Return% (ROR) and Break Even Point % (BEP). You can sort the projects on the basis of mentioned pointers and identify a suitable project matching your investment requisites.....Read more



## Who are we?

- One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services
- We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad



www.niir.org

0

0

 $\bigcirc$ 



www.entrepreneurindia.co

We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.



www.entrepreneurindia.co

We bring deep, functional expertise, but are known for our holistic perspective: we capture value across boundaries and between the silos of any organization. We have proven a multiplier effect from optimizing the sum of the parts, not just the individual pieces. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensures a high quality product.

0 0

O

0

0



## What do we offer?

- Project Identification
- Detailed Project Reports/Pre-feasibility Reports
- o Market Research Reports
- o Business Plan

 $\cap$ 

- Technology Books and Directory
- Industry Trend
- Databases on CD-ROM
- Laboratory Testing Services
- Turnkey Project Consultancy/Solutions
- Entrepreneur India (An Industrial Monthly Journal)



## How are we different ?

- We have two decades long experience in project consultancy and market research field
- We empower our customers with the prerequisite know-how to take sound business decisions
- We help catalyze business growth by providing distinctive and profound market analysis
- We serve a wide array of customers, from individual entrepreneurs to Corporations and Foreign Investors
- We use authentic & reliable sources to ensure business precision

 $\cap$ 





- Public-sector Companies
- Corporates
- Government Undertakings
- Individual Entrepreneurs
- o NRI's
- Foreign Investors
- Non-profit Organizations, NBFC's
- Educational Institutions
- Embassies & Consulates
- o Consultancies
- Industry / trade associations





# <sup>o</sup> Our Approach

#### **Requirement collection**

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

**Report Compilation** 





 $\cap$ 

0

0	0	0		Sectors We Cover		AN ISO 8001 : 2015 CERTIFIED COMPANY
0	0	0	Ayurvedic And H			
0	0	0	Alcoholic And No			
0	1	0	Adhesives, Indus			
	•	0	Activated Carbon			
	12	0	Aluminium And A			
1.184		0	Bio-fertilizers An			
-	2.4	0	and the second second			
		0	Bicycle Tyres & T	ubes, Bicycle Parts, Bicycle	e Assembling	
	5	0	Bamboo And Car	ne Based Projects		
		0	Building Material	ls And Construction Project	ts	a de la constante
		0	Biodegradable &	Bioplastic Based Projects		
		0	Chemicals (Organ	nic And Inorganic)		and the second second
		0	Confectionery, Ba	akery/Baking And Other Fo	bod	
		0	Cereal Processing	S		A State of the second
	- 31	0	Coconut And Coc	conut Based Products		Sec. Maria
N		0	Cold Storage For	Fruits & Vegetables		
		0	Coal & Coal Bypr	roduct		Second And Second
4		0	Copper & Copper	Based Projects		
www.niir.org		org			-	www.entrepreneurindia.co

0	0	0		Sectors We Cover Cont	AN ISO KERT : 2015 CERTIFIED COMPANY
0	0		0	Dairy/Milk Processing	
0	0	1	0	Disinfectants, Pesticides, Insecticides, Mosquito Repellents,	
0	i de	1911	0	Electrical, Electronic And Computer based Projects	
		1	0	Essential Oils, Oils & Fats And Allied	
	52.	1.24	0	Engineering Goods	
			0	Fibre Glass & Float Glass	
1			0	Fast Moving Consumer Goods	and the second second
		1	0	Food, Bakery, Agro Processing	
			0	Fruits & Vegetables Processing	and the second
			0	Ferro Alloys Based Projects	164 ····
			0	Fertilizers & Biofertilizers	
			0	Ginger & Ginger Based Projects	
		1	0	Herbs And Medicinal Cultivation And Jatropha (Biofuel)	
			0	Hotel & Hospitability Projects	
			0	Hospital Based Projects	
			0	Herbal Based Projects	
			0	Inks, Stationery And Export Industries	Section 180
			0	Infrastructure Projects	A States
		Ner. A	0	Jute & Jute Based Products	
www	v.niir.	org			w.entrepreneurindia.co

0	0	0		Sectors We Cover Cont	AN ISO REFT : 2015 CERTIFIED COMPANY
0	0		0	Leather And Leather Based Projects	
	1.		0	Leisure & Entertainment Based Projects	
0	14	State 1	0	Livestock Farming Of Birds & Animals	The second
		Salar.	0	Minerals And Minerals	
	1				
		1. 19	0	Organic Farming, Neem Products Etc.	Sec. A.
		1	0	Paints, Pigments, Varnish & Lacquer	
			0	Paper And Paper Board, Paper Recycling Projects	
			0	Printing Inks	4.4
		1.5	0	Packaging Based Projects	
		1	0	Perfumes, Cosmetics And Flavours	
		-	0	Power Generation Based Projects & Renewable Energy Based	
		1.20		Projects	
-1			0	Pharmaceuticals And Drugs	
1		28.	0	Plantations, Farming And Cultivations	
			0	Plastic Film, Plastic Waste And Plastic Compounds	
		194 - 1 - 1 1 - 1 - 1 - 1 1 - 1 - 1 - 1 - 1	0	Plastic, PVC, PET, HDPE, LDPE Etc.	$\sim$
wwv	v.niir.	org		<u></u>	entreprneurindia.co



- Potato And Potato Based Projects
- Printing And Packaging
- Real Estate, Leisure And Hospitality
- Rubber And Rubber Products
- Soaps And Detergents
- Stationary Products
- $\circ$   $\,$  Spices And Snacks Food  $\,$
- Steel & Steel Products
- o Textile Auxiliary And Chemicals
- Township & Residential Complex
- Textiles And Readymade Garments
- Waste Management & Recycling
- $\circ$  Wood & Wood Products
- Water Industry(Packaged Drinking Water & Mineral Water)
- Wire & Cable





0





- To get a detailed scenario of the industry along with its structure and classification
- To provide a comprehensive analysis of the industry by covering aspects like:
  - Growth drivers of the industry
  - Latest market trends
  - Insights on regulatory framework
  - SWOT Analysis
  - Demand-Supply Situation
  - Foreign Trade
  - Porters 5 Forces Analysis
- To provide forecasts of key parameters which helps to anticipate the industry performance
- To help chart growth trajectory of a business by detailing the factors that affect the industry growth
- To help an entrepreneur/manager in keeping abreast with the changes in the industry
- To evaluate the competitive landscape of the industry by detailing:
  - Key players with their market shares
  - Financial comparison of present players

0 0 0 0 0

 $\bigcirc$ 

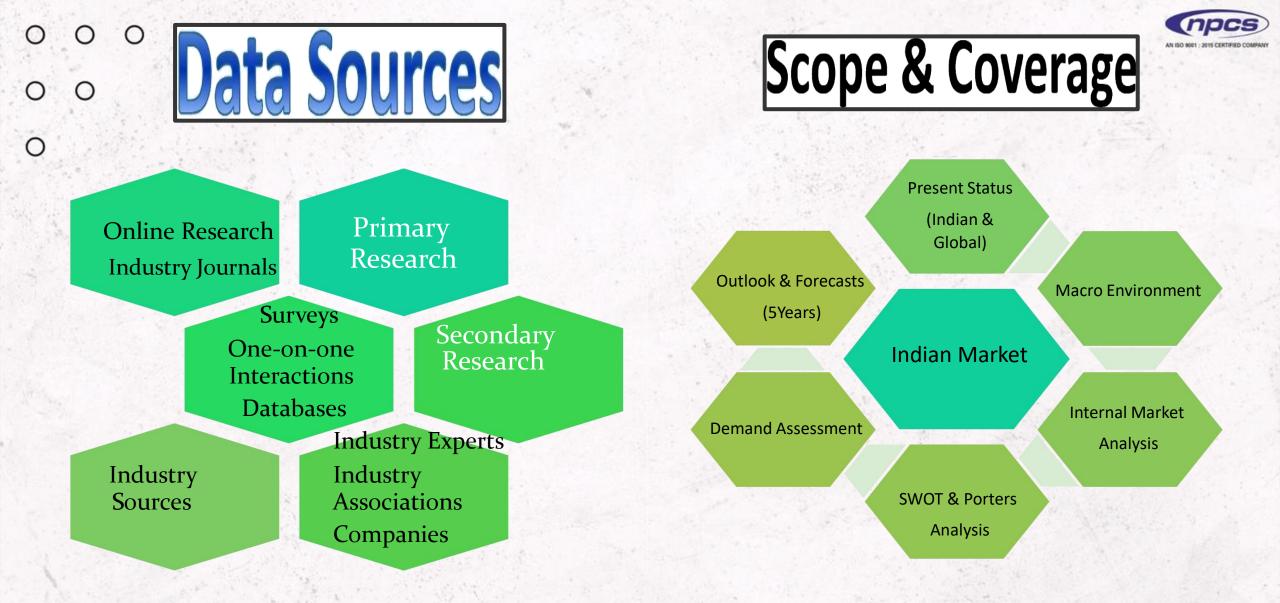




- Venturist/Capitalists
- Entrepreneur/Companies
- Industry Researchers
- Investment Funds
- Foreign Investors, NRI's
- Project Consultants/Chartered Accountants
- Banks
- Corporates

#### Click here for list





www.niir.org

www.entrepreneurindia.co



## **Our Team**

 $\cap$ 

Our research team comprises of experts from various financial fields:
MBA's
Industry Researchers

∞Financial Planners

 $\otimes Research$  veterans with decades of experience







# Visit us at

## www.entrepreneurindia.co

## www.niir.org



www.niir.org

 $\circ$ 

 $\cap$ 



### Take a look at NIIR PROJECT CONSULTANCY SERVICES on #Street View https://goo.gl/VstWkd

## Locate us on Google Maps https://goo.gl/maps/BKkUtq9gevT2

www.entrepreneurindia.co

www.niir.org







# **Entrepreneur**<sub>India</sub>



www.entrepreneurindia.co





### **Contact US** *NIIR PROJECT CONSULTANCY SERVICES* Entrepreneur India

- 106-E, Kamla Nagar, Opp. Mall ST,
- New Delhi-110007, India.
- Email: <u>npcs.ei@gmail.com</u> , <u>info@entrepreneurindia.co</u>
- Tel: +91-11-23843955, 23845654, 23845886
- Mobile: +91-9097075054, 8800733955
- Fax: +91-11-23845886
- Website : <u>www.entrepreneurindia.co</u> , <u>www.niir.org</u>
- Take a look at NIR PROJECT CONSULTANCY SERVICES on #StreetView google-street-view

<u>www.niir.org</u>

 $\circ$ 





in

0

https://www.linkedin.com/company/niir-project-consultancyservices



You Tube

https://www.youtube.com/user/NIIRproject



P



https://www.pinterest.com/npcsindia/

https://www.facebook.com/NIIR.ORG



https://twitter.com/npcs\_in



www.niir.org



# THANK YOU

### For more information, visit us at:

www.entrepreneurindia.co