

# FARMERS TRAINING BROCHURE



Practical training



Post training assistance

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# **FARMERS TRAINING COURSE**

The Farmers Training Program is designed to empower farmers with the latest knowledge, skills, and techniques in modern agriculture. This course provides comprehensive training on sustainable farming practices, crop management, soil health, water conservation, and the use of advanced agricultural technologies. It is ideal for farmers, farm managers, and agricultural enthusiasts who wish to enhance their farming practices and increase productivity.

### What you'll learn?

- Fundamentals of sustainable agriculture
- · Crop selection and rotation for better yield
- Soil health management and organic farming techniques
- Efficient water management and irrigation systems
- Use of modern tools and machinery in farming
- · Pest and disease management using eco-friendly methods
- Post-harvest management and value addition
- Market access and strategies for better pricing

### **Course summary:**

This training equips participants with practical knowledge and techniques to improve their farming operations. The course focuses on sustainable practices, efficient resource management, and the adoption of technology to enhance productivity and profitability.

### Key Takeaways:

- Expertise in sustainable farming methods
- · Skills in managing soil health and crop rotation
- Knowledge of water conservation and irrigation techniques
- Proficiency in using modern farming tools and machinery
- Strategies for effective pest management and crop protection
- Insights into post-harvest management and value addition

# Course syllabus:

### **Module 1: Introduction to Indoor Farming**

- Overview of indoor farming and its significance in modern agriculture
- Comparison of indoor farming with traditional and greenhouse farming
- Benefits and challenges of growing crops indoors
- Overview of indoor farming technologies and trends

### **Module 2: Hydroponics Systems**

- Fundamentals of hydroponics and its various methods
- Setting up and managing nutrient film technique (NFT), deep water culture (DWC), and other hydroponic systems
- Preparing and maintaining nutrient solutions
- Understanding pH, EC, and nutrient balance in hydroponics

# **Module 3: Vertical Farming Techniques**

- Principles and benefits of vertical farming
- Designing and constructing vertical farming systems
- Crop selection for vertical farming
- · Maximizing space and yield in vertical farms

### **Module 4: Environmental Control in Indoor Farming**

- Importance of lighting, temperature, and humidity control
- Choosing and installing appropriate lighting systems (LED, HPS, etc.)
- Monitoring and adjusting environmental parameters for different crops
- Automation and control systems in indoor farming

### **Module 5: Water and Nutrient Management**

- Water management techniques in indoor farming
- Preparing and adjusting nutrient solutions for optimal plant growth
- Recirculating and non-recirculating systems in indoor farming
- Monitoring water quality and nutrient levels

## **Module 6: Pest and Disease Management**

- Common pests and diseases in indoor farming environments
- Integrated Pest Management (IPM) strategies for indoor farms
- Biological controls and safe chemical treatments
- Preventative measures and best practices for maintaining a pest-free

environment

### **Module 7: Advanced Indoor Farming Techniques**

- Introduction to aquaponics and its integration with hydroponics
- Controlled Environment Agriculture (CEA) and its application in indoor farming
- IoT and smart farming technologies in indoor agriculture
- Research and development in indoor farming innovations

### **Module 8: Practical Training in Indoor Farming**

- Field exercises in setting up hydroponic and vertical farming systems
- Hands-on experience in controlling environmental conditions for crop growth
- Practical sessions in nutrient management and pest control
- Real-time monitoring and adjustment of indoor farming systems

# **Module 9: Real-Time Projects in Indoor Farming**

- Developing a complete indoor farming plan from setup to harvest
- Project on hydroponic and vertical farming system integration
- Market analysis and business planning for indoor-grown produce
- Implementation of automation and control systems in indoor farms

### **Module 10: Marketing Indoor Farm Products**

- Identifying market opportunities for indoor-grown crops
- Branding and marketing strategies for indoor farming businesses
- Connecting with retailers, wholesalers, and direct consumers
- Value addition and packaging for indoor farm products

### **Module 11: Evaluation and Certification**

- Final assessment through practical demonstrations and project presentations
- Evaluation of participants' understanding and application of indoor farming techniques
- Certification of completion, recognizing expertise in indoor farming

### **Practical training:**

- Soil Testing and Fertility Management: Hands-on training in soil sampling, testing, and improvement strategies.
- Crop Planning and Rotation: Practical sessions on selecting and rotating crops for maximum yield.
- Water Management: Field exercises in setting up and managing efficient irrigation systems.
- Pest Management: Real-time application of eco-friendly pest control methods.
- Machinery Operation: Training in the use and maintenance of modern agricultural tools and machinery.
- Market Access: Guidance on connecting with markets and selling produce at optimal prices.

### **Career scope:**

Upon completing the farmers training course, graduates can explore career opportunities in various sectors, including:

- Sustainable Farming Consultant
- Farm Manager
- · Agricultural Extension Officer
- Crop Production Specialist
- Agricultural Trainer
- · Organic Farming Entrepreneur
- Irrigation Specialist
- Agri-tech Innovator
- Post-Harvest Manager
- Market Linkage Facilitator