

<b>COURSE NAME:</b>	Organic Food Production Techniques
<b>TOTAL DURATION:</b>	45 Hrs
<b>MODE OF DELIVERY</b>	PHYSICAL CLASSROOM TRAINING AT RESPECTIVE COLLEGES
<b>TRAINER TO STUDENT RATIO:</b>	1:50
<b>TOTAL MARKS:</b>	75

**Table 1**

<b>OVERALL COURSE OBJECTIVE:</b>	<ol style="list-style-type: none"> <li>1. Evaluate the principles of organic farming and food analysis to promote sustainable practices in agriculture and food production.</li> <li>2. Design sustainable farming systems that incorporate eco-friendly materials, advanced pest management strategies, and soil enrichment techniques.</li> <li>3. Develop expertise in conducting food quality and safety assessments using advanced analytical methods and tools.</li> <li>4. Recommend innovative strategies for improving soil health and ensuring compliance with global food safety and environmental standards.</li> <li>5. Create scalable and efficient solutions for integrating green practices in farming and food systems, addressing both environmental and economic sustainability.</li> </ol>
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<b>LEARNING OUTCOME:</b>	<ol style="list-style-type: none"> <li>1. Evaluate the principles and practices of organic farming and food analysis for sustainable and safe food production.</li> <li>2. Develop and implement advanced techniques for crop cultivation, pest management, and food quality assessment.</li> <li>3. Construct eco-friendly farming systems and laboratory setups that enhance sustainability and efficiency.</li> <li>4. Recommend strategies for improving soil health and food safety, ensuring compliance with environmental and safety standards.</li> <li>5. Design innovative solutions for integrating green practices into organic farming and food analysis</li> </ol>
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systems.

<b>TABLE 2: MODULE WISE COURSE CONTENT AND OUTCOME</b>				
<b>SL. NO</b>	<b>MODULE NAME</b>	<b>MODULE CONTENT</b>	<b>MODULE LEARNING OUTCOME</b>	<b>DURATION (HRS)</b>
1	Introduction to Organic Farming	<ul style="list-style-type: none"><li>- Principles and philosophies of organic farming</li><li>- Importance of sustainable agriculture</li><li>- Case studies of successful practices</li></ul>	Prioritize sustainable farming techniques based on environmental and economic impact. Examine principles for long-term sustainability in agriculture.	9
2	Sustainable Crop Cultivation	<ul style="list-style-type: none"><li>- Crop selection and rotation techniques</li><li>- Soil enrichment methods</li><li>- Green manure practices</li></ul>	Justify crop rotation strategies for enhanced yield. Design methods for enriching soil health and maintaining sustainability in diverse farming scenarios.	9
3	Pest and Disease Management	<ul style="list-style-type: none"><li>- Organic pest control techniques</li><li>- Disease prevention strategies</li><li>- Practical applications</li></ul>	Evaluate the effectiveness of pest control measures. Recommend disease prevention plans for maintaining crop health in varying climatic conditions.	9
4	Soil Health and Enhancement	<ul style="list-style-type: none"><li>- Soil testing and analysis</li><li>- Composting methods</li><li>- Natural fertilizers and</li></ul>	Defend soil testing methodologies and their impact on farming productivity.	9

		their applications	Create customized composting and fertilization plans for different soil types.	
5	Organic Farming System Planning	<ul style="list-style-type: none"> <li>- Designing and implementing farming systems</li> <li>- Lifecycle analysis for organic farming</li> <li>- Resource optimization</li> </ul>	Formulate detailed organic farming systems for diverse crops. Propose lifecycle analysis techniques to optimize resources and ensure sustainable practices.	9

<b>TABLE 3: OVERALL COURSE LEARNING OUTCOME ASSESSMENT CRITERIA AND USE CASES</b>			
<b>LEARNING OUTCOME</b>	<b>ASSESSMENT CRITERIA</b>	<b>Performance Criteria</b>	<b>USE CASES</b>
Evaluate principles of organic farming and food analysis	Written assessments	Demonstrates knowledge of key principles with relevant examples and solutions.	Examine case studies showcasing successful sustainable farming practices.
Develop techniques for crop cultivation and quality control	Practical demonstrations	Implements sustainable farming techniques and food analysis methods with precision.	Conduct crop rotation plans and assess crop yield and quality.
Construct eco-friendly systems and setups	Project-based assessments	Designs systems that incorporate eco-friendly practices and tools effectively.	Develop farming systems for diverse climatic conditions.

Recommend strategies for soil and food safety	Evaluations of practical solutions	Proposes actionable strategies for improving soil health and ensuring food safety compliance.	Solve case-based problems related to food safety and soil enrichment.
Design innovative green practices	Final project evaluations	Creates scalable and innovative models that integrate green techniques with measurable outcomes.	Propose business plans for transitioning conventional systems to sustainable ones.

**TABLE 4: LIST OF FINAL PROJECTS (PROJECTS THAT COMPREHENSIVELY COVER ALL THE LEARNING OUTCOME)**

<b>SL.NO</b>	<b>FINAL PROJECT</b>
1	Creation of an organic farming handbook covering principles, techniques, and best practices
2	Case study analysis on successful implementation of organic farming methods
3	Development of a comprehensive sustainable crop rotation plan for different seasons
4	Research project on organic pest control methods and their effectiveness
5	Soil health assessment and improvement plan for a specific agricultural plot
6	Presentation on the importance of biodiversity in organic farming practices
7	Practical demonstration of organic pest management techniques on different crops

8	Proposal for an organic disease prevention strategy for specific crop varieties
9	Design and implementation of a composting system for sustainable soil enrichment
10	Case-based assignments on the impact of organic farming on crop yield and quality
11	Simulation of different organic farming systems and their effects on soil health
12	Research paper on the correlation between organic farming and ecological sustainability
13	Presentation on modern technological advancements in organic farming practices
14	Business plan development for transitioning a conventional farm to organic practices
15	Case studies showcasing challenges and solutions in implementing organic farming techniques
16	Design and execution of a sustainable pest control strategy for a specific crop
17	Financial plan outlining investments for transitioning to organic farming practices
18	Project evaluating the feasibility of implementing new organic farming techniques
19	Creation of a comprehensive report on advancements and challenges in organic farming
20	Practical application of different organic farming systems in varying climatic conditions

<b>TABLE 5: COURSE ASSESSMENT RUBRICS (TOTAL MARKS: 75)</b>					
<b>ASSESSMENT CRITERIA</b>	<b>Learning Outcome</b>	<b>Fair (1–5)</b>	<b>Good (6–10)</b>	<b>Excellent (11–15)</b>	<b>TOTAL MARKS</b>

Understanding Organic and Food Systems	Evaluate principles of organic farming and food analysis.	Limited grasp of sustainable and safety practices.	Demonstrates moderate understanding with practical examples.	Provides comprehensive understanding and advanced applications.	15
Application of Sustainable Techniques	Develop techniques for crop cultivation and quality control.	Basic execution of techniques with limited precision.	Executes techniques with reasonable accuracy and outcomes.	Implements advanced techniques with high precision and innovative outcomes.	15
Construction of Eco-Friendly Systems	Construct eco-friendly systems and setups.	Designs basic systems with limited considerations.	Designs systems with sound functionality and alignment to objectives.	Develops innovative and scalable systems with advanced considerations.	15
Strategy Recommendation	Recommend strategies for soil and food safety.	Proposes basic strategies with minimal impact.	Proposes actionable strategies with reasonable success.	Recommends advanced, impactful strategies with measurable outcomes.	15
Innovation in Green Practices	Design innovative green practices.	Creates basic models with limited scope.	Develops practical models with moderate scalability.	Designs highly innovative and scalable solutions with	15

				measurable success.	
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