



RAFFLES
UNIVERSITY

TEACHING PLAN: Principles of Organic Farming

SCHOOL: (SOAS) SCHOOL OF AGRICULTURAL SCINCES		ACADEMIC SESSION: 2023 – 2024		FOR STUDENTS’ BATCH: 2021-2025	
1	Course No.	AAG-T-305			
2	Course Title	Principles of Organic Farming			
3	Credits	2(1+1)			
4	Learning Hours		Contact Hours	72	
			Assessment	09	
			Guided Study	09	
			Total hours	90	
5	Course Objective	1. To give basic concept of organic farming, various organic components, how to control disease and pest through organic inputs, certification of organic products. 2. To Understand the Concept of Organic Farming. 3. To Understand the Scope and Importance of Organic Farming. 4. To Ensure Safe and Healthy Food production.			
6	Course Outcomes	1. Helps in understanding the Concept, Principles, Scope and Opportunities of Organic Farming. 2. Helps in understanding the Role of an Organic Grower. 3. Can develop an organic production system 4. Use of various organic inputs for crop production. 5. Use of non-synthetic agents for crop production, will get some idea about organic certification. 6. It helps students can explain to the farmers what is organic farming, why it is needed today, how it can be promoted, how it can be used for more production in less cost, by Government of India What steps are being taken for this, and how farmers can increase the yield of their crop without using chemicals, as well as how to make their fields fertile.			
7	Outline syllabus:				
7.01	Paper Code	Unit	Introduction	Page Numbers ¹	Lect ures
7.02	AAG-T-305	Unit I	1. Organic farming, principles and its scope in India. 2. Initiatives taken by Government (central/ state), NGOs and other organizations for promotion of organic agriculture.	694-705	2 3
		Unit II	1. Organic ecosystem and their concepts. 2. Organic nutrient resources and its fortification. 3. Restrictions to nutrient use in organic farming.	705-713	1 2 2
		Unit III	1. Choice of crops and varieties in organic farming. 2. Fundamentals of insect, pest, disease and weed management under organic mode of production. 3. Operational structure of NPOP.	728-731	1 3 2
		Unit IV	1. Certification process and standards of organic farming. 2. Processing, levelling, economic considerations and viability, marketing and export potential of organic products.	731-747	2 4
8	Course Evaluation				
8.1	CA: 10%				
8.1.1	Attendance	25%			
8.1.2	Homework	2 Assignments, 50%			
8.1.3	Quizzes	2 Quizzes, 25%			
8.1.4	Projects	-			
8.1.5	Presentation	-			

8.1.6	Any other	Practical Examination -25%
8.2	MTE	10%
8.3	End-term examination: 50%	
9	Text Books & References	
9.1	Text book	1. Principles Of Organic Farming, by P L Maliwal Scientific Publishers
9.2	References	1. Principles of Agronomy, 5 th edition by Reddy S.R. Kalyani Publication, Ludhiana 2021 2. Principles Of Organic Farming by Reddy S R Kalyani Publication, Ludhiana 3. Principles Of Organic Farming, By Somasundaram, E. New India Publishing Agency- Nipa 4. Principles of Agronomy (H), by Arya R.L. Scientific Publications (India), New Delhi 2017 5. https://onlinecourses.swayam2.ac.in/cec22_ag05/subjective?name=4
9.3	Video References	1. https://onlinecourses.swayam2.ac.in/cec22_ag05/unit?unit=1&lesson=9 2. https://onlinecourses.swayam2.ac.in/cec22_ag05/unit?unit=1&lesson=10 3. https://onlinecourses.swayam2.ac.in/cec22_ag05/unit?unit=11&lesson=17 4. https://onlinecourses.swayam2.ac.in/cec22_ag05/unit?unit=11&lesson=18

Mapping of Outcomes v. Topics

Outcome no. → Syllabus topic↓	1	2	3	4	5	6
Paper Code.Unit I (1)	✓					✓
Paper Code. Unit I (2)						✓
Paper Code.Unit II (1)	✓		✓			✓
Paper Code. Unit II(2)					✓	✓
Paper Code. Unit II(3)					✓	✓
Paper Code.Unit III (1)			✓		✓	✓
Paper Code. Unit III(2)					✓	✓
Paper Code. Unit III(3)						✓
Paper Code.Unit IV (1)						✓
Paper Code. Unit IV(2)						✓

QUESTION BANK

Section A

Unit I

1. Define organic farming.
2. How does organic farming help in conservation of ecological balance?
3. Write down the practices to be followed in an organic farming system.
4. Write down the role of organic farming for sustainable agricultural production.
5. What is the relevance of organic farming in the present context?
6. Explain in brief the objectives of organic farming.

Unit II

7. Give brief account of organic seeds.
8. Write notes on green manure.
9. Briefly explain *Rhizobium* as bio fertilizer.
10. What is the role of organic manures in organic farming?
11. How does crop residue help in organic farming?
12. How is BGA helpful in nutrient management in organic farming?
13. Write short notes on
 - a. Conversion period
 - b. Vermi composting.

Unit III

14. What is mulching? Describe briefly the types of mulches.
15. Briefly explain ‘‘Natural enemies’’ with at least two examples each.
16. What are organic amendments? Write down their advantages and disadvantages.
17. Write the neem formulations for disease and pest management in organic farming.

18. Explain the method of preparation of panchagavya.
19. Give a short description of cultural methods for weed control.
20. Write short notes on
 - a. Trap crops.
 - b. Biological weed control.
21. Write down the content of the inspection report in organic production unit.
22. Write down the specifications for the ingredients used in organic food processing.
23. What are the packaging and labeling requirements in organic food handling?
24. Mention the specifications for storage and transport of organic products.
25. Write short notes on
 - a. NPOP.
 - b. Organic logo.

Section B

Unit I

1. What is the global scenario of organic farming?
2. What are the major problems in promoting Organic agriculture?
3. Give a brief account of suggested practices for organic farming.

Unit II

4. Elaborate conversion period.
5. Write down the methods of vermin compost application.
6. What do you understand by composting? Briefly explain the phases of composting.
7. Write down the agronomic benefits of bio fertilizers.
8. Elaborate the residue management for animals in organic farming.

Unit III

9. Briefly explain the cultural methods for disease and pest control.
10. Elaborate the use of bio pesticides for control of disease and pests.
11. What are botanical insecticides? Explain.
12. Briefly describe soil amendments.

Unit IV

13. Explain briefly the procedure of organic certification.
14. Write down the specific requirements for handling and processing of organic food.
15. Write the standard inspection procedures in organic production system.

Section C

1. Write down the basic principles and objectives of organic farming.
2. Elaborate the components of organic farming. What are the benefits of organic farming?
3. Write down the organic production requirements as per the national standards.
4. Elaborate important organic source for nutrient management.
5. Define bio fertilizer. Give a detailed account of 5 bio fertilizers.
6. Explain the process and precautions in vermin composting.
7. Give a detailed account of indigenous technology for nutrient management.
8. Elaborate the integrated control measures for diseases and pests in organic farming.
9. Explain different methods of weed management in organic farming.
10. Give a detailed account for organic certification.

PROJECTS (To be given to group of students)

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- 1.
 - 2.