



**University of Kerala**

Discipline	<b>BOTANY</b>				
Course Code	<b>UK4SECBOT202</b>				
Course Title	<b>ORGANIC AGRICULTURE PRACTICES</b>				
Type of Course	<b>SEC</b>				
Semester	<b>IV</b>				
Academic Level	<b>200 - 299</b>				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	03	02 Hours	-	02 Hours	04 Hours
Pre-requisites	No Pre requisites				
Course Summary	Students will understand and analyse the benefits of organic agriculture. They will apply the knowledge of methodology of organic farming in their home gardens. They will understand the global demand and premium price organic products fetch in the market. The course may motivate the students to get into Organic Farming and Marketing business ventures.				

**Detailed Syllabus:**

Module	Unit	Content	Hrs
<b>I</b>	<b>Need and Scope of Organic Farming</b>		<b>04</b>
	1	Principles and practices of organic farming	
	2	Need of Organic farming in present context and future prospects	
	3	Zero Budget Natural Farming (ZBNF)	
	4	Types. (Integrated organic farming, Pure organic farming,)	
<b>II</b>	<b>Agricultural practices in Organic Farming</b>		<b>04</b>
	5	Selection of plants	
	6	Early agricultural practices– inter cropping and crop rotation	
	7	Major cultivated crops and vegetables in India	
<b>III</b>	<b>Organic matter management in agricultural fields</b>		<b>04</b>
	8	Plant health and sustainable agriculture	
	9	Vermicomposting, mulching and green manure	
	10	Importance of microbes in the enrichment of soil fertility	
	11	Role of VAM as growth regulator	
<b>IV</b>	<b>Organic Farm Management</b>		<b>06</b>
	12	Land preparation - Tools and Technique	
	13	Preparation of seed bed, manuring, sowing, watering and raising of seedling	
	14	Pest control: Cultural, Biological and Mechanical method	
	15	Integrated Pest Management (IPM)	
<b>V</b>	<b>Value Addition in Organic Farming</b>		<b>12</b>
	15	Harvesting and Post Harvesting Management	
	16	Inspection, Certification, Labelling procedure, Marketing & Export	
	17	Quality Control and certification procedures of Organic products	

	18	Terrace and kitchen garden	
	19	Value addition in organic products - General Account only	

<b>Practicals</b>		
	1. Visit to Organic farm to study the various components, identification and utilization of Organic products. 2. Preparation of Organic Compost-Over ground compost, Pit compost, Liquid compost, Vermi compost. 3. Method of application of different types of fertilizer and Green manure.	<b>30</b>

### **Suggested Readings:**

1. Alvares, C. (1996). The Organic Farming Source Book. The Other India Press, Mapusa, Goa.
2. Anonymous. (2001). Report of Task Force on Organic Farming, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, 2001, p. 76.
3. Dongarjal R. P. and Zade S.B. (2019). Insect Ecology and Integrated Pest Management, Akinik Publications, New Delhi.
4. Dushyent Gehlot. (2005). Organic Farming- standards, accreditation, certification and inspection. Agribios, India.
5. Guideline of National Project on Organic Farming, Department of Agriculture and Cooperation, INM Division, Ministry of Agriculture, Govt. of India

### **References**

1. Gupta, M. (2004). Organic Agriculture Development in India. ABD publishers, Jaipur, India.
2. Kumaraswamy K. (2002). Organic farming relevance and prospects. Indian Soc. Soil Sci. Newsletter, No. 12, p 1.
3. Organic Farming: The Ecological System- Agronomy Monograph 54, ASA, USA.
4. Robin Mittenhal. (2007). From the ground - a guide to basic organic vegetable, flower, and herb gardening for new gardeners. 1-108
5. S K Singh, R B Yadav, Jagadish Singh and Bijendra Singh. (2017). Organic Farming in Vegetables, IIVR, Government of India, Technical Bulletin 77, p. 1-42.
6. Sathe, T.V. (2004) Vermiculture and Organic Farming. Daya Publishers.

### **Course Outcomes**

<b>No.</b>	<b>Upon completion of the course the graduate will be able to</b>	<b>Cognitive Level</b>	<b>PSO addressed</b>
CO-1	Basics principles and methods of vegetable farming	U	PSO-1

CO-2	Evaluate and analyse different steps and agricultural practices adopted in organic farming	An	PSO-1
CO-3	Examine various pest and disease management techniques	Ap	PSO-11
CO-4	Learn about different procedures in Organic farming related to post harvesting techniques and quality control in Organic farming.	U	PSO-4

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

**Name of the Course: Organic Agriculture Practices**

**Credits: 2:0:1 (Lecture:Tutorial:Practical)**

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
CO-1	1	PSO-1		F, C		
CO-2	2	PSO-1		P		
CO-3	3	PSO-12		F		
CO-4	4	PSO-4		M		

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

**Assessment Rubrics:**

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

**Mapping of COs to Assessment Rubrics :**

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓		✓	✓
CO 3	✓			✓
CO 4		✓		✓