



DEPARTMENT OF BIOTECHNOLOGY
Keral Verma Subharti College of Science
SWAMI VIVEKANAND SUBHARTI UNIVERSITY

(Established under UP Govt. Act No. 29 of 2008 and approved under section 2(f) of UGC Act, 1956)

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Name of Value Added Course: **Organic farming and cultivation**

Course Code: **24VACBIOTC1**

Time: **30 hrs**

Objectives: The course is designed to provide comprehensive knowledge to biofertilizers. Biofertilizers are substance that contains microbes, which helps in promoting the growth of plants and trees by increasing the supply of essential nutrients to the plants. It comprises living organisms which include mycorrhizal fungi, blue-green algae, and bacteria.

Module I General account about the organic farming, types of organic farming, current trends, opportunities and challenges.

Module II Natural farming, Seed treatment via natural agents, mulching, Jeevamrut, Ghanjeevamrut.

Module III Crop Rotation, Plant Protection Practices: Cultural practices, Inter cropping and trap crops, Mixed Cropping, Growing disease resistant varieties

Module IV Microbes used as biofertilizer – Rhizobium, Cyanobacteria (blue green algae), *Azolla*, *Anabaena*, *Azotobacter*, *Azospirillum*, Actinorrhizal symbiosis, Mycorrhizal association and its influence on growth and yield of crop.

Module V Organic farming – Green manuring and organic fertilizers, Recycling of bio-degradable municipal, agricultural and Industrial wastes – biocompost making methods, types and method of vermicomposting – field Application.

Outcome:

At the end of this course, students will be able to

1. Gain **knowledge** of organic farming.
2. **Discuss** the role of natural farming in agriculture.
3. **Classify** and **illustrate** the organic plant protection practices.
4. **Demonstrate and Detect** mycorrhizal association and symbiosis.
5. **Explain** about composting.

Reference books:

1. Dubey, R.C., 2005 A Text book of Biotechnology S.Chand & Co, New Delhi.
2. Palekar and Palekar, 2001. Principles of Natural Farming.
3. John Jothi Prakash, E. 2004. Outlines of Plant Biotechnology. Emkay Publication, New Delhi.
4. Sathe, T.V. 2004 Vermiculture and Organic Farming. Daya publishers.
5. Subha Rao, N.S. 2000, Soil Microbiology, Oxford & IBH Publishers, New Delhi.
6. Vayas,S.C, Vayas, S. and Modi, H.A. 1998 Bio-fertilizers and organic Farming, Akta Prakashan, Nandiad

Course Name: Organic Farming and Cultivation

Course code: 24VACBIOTC1

Duration: 17.03.2025 – 21.04.2025



**Course offered by:
Department of Biotechnology
VALUE ADDED COURSE
SESSION 2024-25**



Organic farming and cultivation

Objective :

Organic farming is the need in present scenario because of excess use of chemicals in our food chain. Through this course students will be aware about how to grow chemical free food through organic inputs.

Coordinator Name: Dr. Mohd Asif Siddiqui
Designation: Associate Professor
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**VALUE ADDED COURSE Session 2024-25
REGISTRATION FORM**

**Organic Farming and Cultivation
(24VACBIOTC1)**

Name :.....

Enrolment No.....

Program:.....

Sem. & Year.....

Faculty/College/Deptt.....

Contact No./Mobile:.....

E-mail:.....

Signature with date:.....

Coordinator Name: Dr. Mohd Asif Siddiqui

Designation: Associate Professor
Department, Biotechnology, KVSCOS,
SVSU, Meerut

Email ID: asifsiddiqui82@gmail.com
Ph No. 9410606339

Course Schedule

17.03.2025 – 21.04.2025

12.10 PM 1.05 PM