

VAC140	ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING	30 Hours	Prerequisite	Nil
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Course Description

Overuse of chemical fertilizers to increase crop productivity has caused huge loss to the environmental quality and human health. Therefore, the focus has now shifted to organic farming, minimizing the use of chemicals, and focusing more on the use of organic products. This value-added course has been designed to impart knowledge to students regarding the role of biofertilizers and biopesticides in organic crop production. Students will learn about how these organic products can aid in increasing crop productivity and at the same time maintaining environmental health.

Course Objectives

Students will be able to:

- study about organic crops.
- explain the role of biofertilizers and biopesticides in organic crop production.

Course Outcomes

On completion of the course, students will be able to:

- CO 1: discuss ideas of how to grow organic crops.
- CO 2: elucidate biofertilizers and biopesticides use in agriculture.
- CO 3: apply knowledge of the shelf life, characteristics and quality control of bio-pesticides and biofertilizers.
- CO 4: practice organic crop production using biofertilizers and biopesticides.

Course Content

Module I

- Introduction to Organic farming and its relevance in present context.
- Concept of organic ecosystem and nutrient use under organic farming.
- Challenges under organic crop production.

Module II

- Introduction to biofertilizers and its classification
- Mass production of biofertilizers
- Methods of application of biofertilizers in various Kharif and rabi crops.

Module III

- Introduction to biopesticides and its classification.
- Mass production of biopesticides
- Methods of application of biopesticides in various Kharif and rabi crops.

Module IV

- Storage and handling of biofertilizers and biopesticides
- Harvesting and storage of organic produce of various crops
- Packing and marketing of organic produce.
- Career prospects under organic farming.

Practicum

1. Students will prepare and apply biofertilizers to a designated crop or set of plants.
2. Students will prepare biopesticides using natural ingredients.
3. Students will conduct soil health assessments before and after biofertilizer application.
4. Students will identify common plant diseases and pests affecting the selected crops.

Textbooks

Acharya, K. Sen, S, and Rai, M. (2019). Biofertilizers and Biopesticides. Techno World.

Lakshman, H.C and Channabasava, A. (2014). Biofertilizers and Biopesticides. Jaipur: Pointer Publisher.

Reference Books

Dinesh Biofertilizers (Skill Enhancement Course) by Dr. Anil K. Thakur, Dr. Susheel K. Bassi and Dr. Kamaljit Singh.

Biofertilizers and Biopesticides Unknown Binding by Krishnendu Acharya, Surjit Sen and Manjula Rai.

Biofertilizers and Biocontrol Agents for Organic Farming by Dr. Reeta Khosla.
Organic farming for sustainable agriculture by Dileep Nandwani.

Evaluation Component		Weightage (%)
1	Activities	20
2	Project/Presentation	20
3	Attendance	10
4	End Term Examination	50



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ICR, Mangalam University
Sohna Road, Gurugram (Haryana)



K.R. MANGALAM UNIVERSITY
EDUCATION FOR LIFE
(Recognized by UGC and a member of AIU)

Ref.No.:KRMU/Admin./Notice/2022-23/ 3079 (6)
Dated: 06th August, 2022

NOTICE

This is to put for information that School of Agriculture Sciences is offering Value-Added Course (VAC) for all interested students during Odd Semester as per the following specifications.

Course Code	Course Title	Coordinating Department / School	Duration
VAC140	Role of Biofertilizers and Biopesticides in Organic Farming	SOAS	30 Hrs.

Maximum 100 seats are available for the course.
Course Start Date: 05 September 2022
Course End Date: 29 December 2022

All interested students are required to confirm their registration with the Dean-School of Agriculture Sciences latest by 24th August, 2022.

[Signature]

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Sohna Road, Gurgaon (Haryana)

- Vice Chancellor
- Dean (Academics Affairs)
- Controller of Examinations
- All Deans/ School Coordinators
- All Faculty Members/ Mentors
- Notice Board
- Office Copy

For kind information :

[Signature]

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Sohna Road, Gurgaon (Haryana)



ATTENDANCE SHEET
VAC COURSE FOR ACADEMIC YEAR 2022-23
COURSE CODE: VAC140

COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

ROLL NO	NAME	PROGRAMME	SEMESTER	5-Sep-22	8-Sep-22	10-Sep-22	12-Sep-22	15-Sep-22	17-Sep-22
2213820011	SHREYANK ADHIKARI	B.Sc. (H) Agriculture	Semester I	A	P	P	A	P	A
2213820004	PRADYUMNA ROY	B.Sc. (H) Agriculture	Semester I	P	P	A	A	A	A
2213820015	RIDDHI NIGAM	B.Sc. (H) Agriculture	Semester I	P	P	A	P	A	P
2213820007	ANSAR KHAN	B.Sc. (H) Agriculture	Semester I	A	A	P	A	P	P

Vasishtha
COURSE INCHARGE

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DEAN
School of Agriculture Sciences (SOAS)
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ATTENDANCE SHEET
VAC COURSE FOR ACADEMIC YEAR 2022-23
COURSE CODE: VAC140

COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

ROLL NO	NAME	22-Sep-22	22-Sep-22	24-Sep-22	26-Sep-22	29-Sep-22	1-Oct-22	3-Oct-22	6-Oct-22	8-Oct-22	10-Oct-22
2213820011	SHREYANK ADHIKARI	P	A	P	A	P	P	A	P	P	P
2213820004	PRADYUMNA ROY	P	P	A	P	A	P	P	P	P	P
2213820015	RIDDHI NIGAM	P	P	A	P	P	P	P	A	P	P
2213820007	ANSAR KHAN	P	A	P	A	P	P	P	P	P	P

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VAC COURSE FOR ACADEMIC YEAR 2022-23

COURSE CODE: VAC140

COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

ROLL NO	NAME	13-Oct-22	15-Oct-22	17-Oct-22	20-Oct-22	22-Oct-22	23-Oct-22	24-Oct-22	27-Oct-22	29-Oct-22
2213820011	SHREYANK ADHIKARI	P	A	P	A	P	P	A	P	P
2213820004	PRADYUMNA ROY	P	P	P	P	P	P	P	P	P
2213820015	RIDDHI NIGAM	P	P	P	P	P	P	P	P	P
2213820007	ANSAR KHAN	P	P	P	P	P	P	P	P	P

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COURSE CODE: VAC140

COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

ROLL NO	NAME	31-Oct-22	1-Nov-22	5-Nov-22	7-Nov-22	10-Nov-22	12-Nov-22	14-Nov-22	17-Nov-22	19-Nov-22	21-Nov-22
2213820011	SHREYANK ADHIKARI	A	P	P	P	P	P	P	P	P	P
2213820004	PRADYUMNA ROY	P	P	P	P	P	P	P	P	P	P
2213820015	RIDDHI NIGAMI	P	P	P	P	P	P	P	P	P	P
2213820007	ANSAR KHAN	A	P	P	P	P	A	P	P	P	P

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COURSE CODE: VAC140

COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

ROLL NO	NAME	24-Nov-22	26-Nov-22	28-Nov-22	1-Dec-22	3-Dec-22	5-Dec-22	8-Dec-22	10-Dec-22	12-Dec-22	15-Dec-22
2213820011	SHREYANK ADHIKARI	P	P	P	P	A	P	P	P	P	P
2213820004	PRADYUMNA ROY	P	P	P	P	P	P	P	P	P	A
2213820015	RIDDHI NIGAM	A	P	P	A	P	P	P	P	A	P
2213820007	ANSAR KHAN	A	A	A	P	P	P	P	P	P	P

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VAC COURSE FOR ACADEMIC YEAR 2022-23
COURSE CODE: VAC140
COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

ROLL NO	NAME	17-Dec-22	19-Dec-22	22-Dec-22	24-Dec-22	26-Dec-22	29-Dec-22	Total	Present	Percentage
2213820011	SHREYANK ADHIKARI	P	P	P	A	P	P	51	39	76.47
2213820004	PRADYUMNA ROY	P	A	A	P	P	A	51	40	78.43
2213820015	RIDDHI NIGAM	P	P	P	P	A	A	51	40	78.43
2213820007	ANSAR KHAN	P	P	P	P	A	A	51	39	76.47

COURSE INCHARGE

1008 hr

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VALUE ADDED COURSE (VAC)

ACADEMIC YEAR 2022-23

COURSE CODE: VAC199 / Yo

COURSE TITLE: ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING

COURSE OFFERED BY: SCHOOL OF AGRICULTURAL SCIENCES

LIST OF STUDENTS COMPLETING THE COURSE

S.NO	SESSION	ROLL NO	NAME	PROGRAMME	SEMESTER	COURSE CODE	COURSE TITLE	SCHOOL
1	2022-23	2213820011	SHREYANK ADHIKARI	B.Sc. (H) Agriculture	Semester I	VAC140	ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)
2	2022-23	2213820004	PRADYUMNA ROY	B.Sc. (H) Agriculture	Semester I	VAC140	ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)
3	2022-23	2213820015	RIDDHI NIGAM	B.Sc. (H) Agriculture	Semester I	VAC140	ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)
4	2022-23	2213820007	ANSAR KHAN	B.Sc. (H) Agriculture	Semester I	VAC140	ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING	SCHOOL OF AGRICULTURAL SCIENCES (SOAS)

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This is to certify that **Shreyank Adhikari**, University Enrolment No **2213820011** of **B.Sc. (H) Agriculture** programme has successfully qualified **VALUE ADDED COURSE VAC140 (ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING)** during Academic Session **2022-23 (Odd Semester)**.

Madhavan

Date: 20.02.2023

Controller of Examination

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This is to certify that **PRADYUMNA ROY**, University Enrolment No **2213820004** of **B.Sc. (H) Agriculture** programme has successfully qualified **VALUE ADDED COURSE VAC140 (ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING)** during Academic Session **2022-23 (Odd Semester)**.

Pradyumna

Date: 20.02.2023

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This is to certify that **Riddhi Nigam**, University Enrolment No **2213820015** of **B.Sc. (H) Agriculture** programme has successfully qualified **VALUE ADDED COURSE VAC140 (ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING)** during Academic Session **2022-23 (Odd Semester)**.

Pradeepan

Date: 20.02.2023

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This is to certify that **Ansar Khan**, University Enrolment No **2213820007** of **B.Sc. (H)**
Agriculture programme has successfully qualified **VALUE ADDED COURSE VAC140**
(ROLE OF BIOFERTILIZERS AND BIOPESTICIDES IN ORGANIC FARMING)
during Academic Session **2022-23 (Odd Semester)**.

Date: 20.02.2023

Controller of Examination

Ansar Khan

Registrar

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