Skill Courses

GANPAT UNIVERSITY									
FACULTY OF AGRICULTURE, ALLIED SCIENCES & TECHNOLOGY									
Programme	B.Sc. (Hons) Agriculture					Branch/Spec.	Agriculture		
Semester	I					Version	21.0.0.0		
Effective from Academic Year			2025-26			Effective for the batch Admitted in			July 2025
Subject code	IA11BBP		Subject Name			**Biofertilizer and Biopesticide production**			
Teaching scheme						Examination scheme (Marks)			
(Per week)	Lecture (DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	0	0	2	-	2	Theory	0	0	0
Hours	0	0	4	-	4	Practical	100	0	100

Objectives of the course:

CO-1. Provide training to students in isolating and mass producing biopesticides.
CO-2. To identify various botanicals and entomopathogens in the field.
CO-3. To develop skills in bio-fertilizer isolation and mass production.
CO-4. To provide exposure to quality control and industry practices.
CO-5. To provide exposure through visit bio-pesticide laboratory.

Practical Content

1. Isolation and purification of important biopesticides: *Trichoderma Pseudomonas, Bacillus, Metarhyzium* etc. and its production.
2. Identification of important botanicals.
3. Visit to biopesticide laboratory in nearby area.
4. Field visit to explore naturally infected cadavers.
5. Identification of entomopathogenic entities in field condition.
6. Quality control of biopesticides.
7. Isolation and purification of *Azospirillum , Azotobacter, Rhizobium*, P-solubilizers and cyanobacteria.
8. Mass multiplication and inoculums production of biofertilizers.
9. Isolation of AM fungi -Wet sieving method and sucrose gradient method.
10. Mass production of AM inoculants.

Reference book

1. Biofertilizers and Biopesticides in Sustainable Agriculture: By B. D. Kaushik
2. Biofertilizers & Biopesticides 2E: By Krishnendu Acharya, Surjit Sen, and Manjula Rai 2019
3. Basics Of Organic Farming: By M. Bansal