



Centurion
UNIVERSITY

Shaping Lives...
Empowering Communities...

Center for Smart Agriculture

Course: Organic Farming



Topic: Introduction, scope and importance of biofertilizer and biopesticides



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

OBJECTIVES

- Biofertilizers and their characteristics.
- Understand the prospects and importance of biofertilizers.
- Select a suitable low cost and efficient bio-fertilizer for organic farming.



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

INTRODUCTION

- ▶ Generally, agricultural land gets impoverished after long term cultivation, if not supplemented proper with inputs.
- ▶ To supplement the soil nutrient content under conventional farming system, we need to apply high doses of agrochemicals which in turn pollute the ecosystem.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

- Therefore, in order to make agriculture sustainable, it is necessary to implement a balanced and responsible use of organic agriculture.
- The principles of organic farming also outline the similar concepts where the soil health and biodiversity is built up to sustain the plant growth in longer term.



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

IMPORTANCE

- ❑ Biofertilizers fix atmospheric nitrogen in the soil and root nodules of legume crops and make them available to the plants.
- ❑ They solubilize the insoluble forms of phosphate, such as tricalcium, iron and aluminum phosphates, into available forms.
- ❑ They scavenge phosphates from soil layers.
- ❑ They produce hormones and anti-metabolites which promote root growth.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

SCOPE OF BIOFERTILIZER

Biofertilizers have their own advantages over chemical fertilizers and are economically and environmentally friendly as well.

Depleting soil fertility due to widening the gap between nutrient uptake and supplies

Growing concerns about environmental hazards.

Biofertilizers is economical, eco-friendly, more efficient, productive and accessible to marginal and small farmers over chemical fertilizers.



Centurion
UNIVERSITY

Shaping Lives...
Empowering Communities...