

MBBSSEC02M: BIOTECHNOLOGY IN SUSTAINABLE DEVELOPMENT

(Total Hours: 30, Credits: 2)

Unit 1: Biofertilization, Phytosimulation, Bioinsecticides (12 hours):

Plant growth promoting bacteria, biofertilizers – symbiotic (*Bradyrhizobium*, *Rhizobium*, *Frankia*), Non Symbiotic (*Azospirillum*, *Azotobacter*, Mycorrhizae, Phosphate solubilizers, algae), Novel combination of microbes as biofertilizers.

Unit 2: Secondary Agriculture Biotechnology (10hours):

Biotech feed, Silage, Biomanure, biogas, biofuels – advantages and processing parameters.

Unit 3: GM crops (8 hours):

Advantages, social and environmental aspects, Bt crops, golden rice, transgenic animals.

ENVIRONMENT AND SUSTAINIBILITY