

AGR233:BIOHERBICIDE FORMULATION AND PRODUCTION

L:0 T:0 P:4 Credits:2

Course Outcomes: Through this course students should be able to

- CO1 :: remember allelopathic plants and bioherbicidal microorganisms
- CO2 :: understand the principles of bioherbicide formulation and production.
- CO3 :: apply standard techniques for preparing plant-based and microbial bioherbicides
- CO4 :: analyze the performance of plant-based and microbial bioherbicides under laboratory and field conditions
- CO5 :: evaluate the efficacy, storage, handling, and regulatory aspects of bioherbicides for weed management

List of Practicals / Experiments:

Identification and collection of bioherbicidal resources.

- field visit for introduction to and identification of allelopathic plants.
- laboratory visit for identification of bioherbicidal pathogens
- collection of plant materials for preparation of allelopathic extracts.

Preparation and formulation of bioherbicides

- processing of plant materials for preparation of allelopathic extracts.
- preparation of plant-based herbicides.
- bioassay of plant-based herbicides through seed germination studies.
- field evaluation of plant-based herbicides for dose standardization and weed control efficiency.

Storage and microbial bioherbicide production.

- study of storage, packaging, and handling of plant-based herbicides.
- preparation of seed culture for microbial herbicide production.
- preparation of microbial herbicides.

Field application and regulatory aspects.

- application and evaluation of microbial herbicides under field conditions.
- study of regulatory aspects of microbial herbicides.

Text Books: 1. WEED SCIENCE: BASICS AND APPLICATIONS by DAS T.K, JAIN BROTHERS

References: 1. WEED SCIENCE AND MANAGEMENT by N.T. YADURAJU A.R. SHARMA T.K. DAS, INDIAN COUNCIL OF AGRICULTURE RESEARCH

