

Course objectives

- To learn about various types of pesticides
- To learn about characteristics of insecticides, preparations and their uses in agriculture.
- To know about fate of pesticide residues in nature

UNIT 1

15 hr

Pesticides : Introduction, classification,

Insecticides: Introduction, classification, Organochlorine insecticides-BHC,DDT, sevin, endosulfan, Insect pheromones, general introduction and applications in integrated pest management.

Repellents: Survey & synthesis of the repellents-N,N-diethyltoluamide, 2-ethyl-1,3- hexanediol.

Fungicides: Introduction, Inorganic & organic fungicides, Systemic fungicides-types & examples. **Herbicides:** Introduction, study of sulfonyl ureas, Mechanism of action and toxicities of insecticides, fungicides and herbicides.

Unit-II:

15 hr

Residues of Agrochemicals: a) Pesticides Residues in the Atmosphere: Pesticides into the atmosphere and their fate, transport of vapours, precipitation, effect of residues on human life, b) Pesticides residues in Water system: Nature and origin of pollution of aquatic systems, Point and Non-Point pollution. Dynamics of pesticides in aquatic environment.

UNIT-III

15hr

Pesticides residues in the Soil: Absorption, Retention, Transport and Degradation of pesticides in the soil, Effect on microorganisms and Consequent effect on the soil condition, Fertility, Interaction in the soil, Effect of pesticide residues on the quality of human life. Model ecosystem, In general and consequent effect on human life. The Cases of & affected societies (endosulfan tragedy) and starving populations facing problems of health and nutrition, Traditional wisdom and Food security.

Course Out come

- The candidates will be learning about the insecticides and their uses in agriculture
- The students will be aware of fate of pesticide residues in the environment.

References

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