Devchand College, Arjunnagar

P.G. Department of Agrochemicals and pest management

Program Specific Outcome (PSOs)

1. Learn about characters and classification of microbes
2. Study physiology and reproduction in microbes
3. Learn techniques of isolation ,culture and preservation of clinical microbes
4. Get knowledge of disease development stages and control of diseases
5. Become skilled at techniques of Chromatography ,Microscopy, Spectroscopy, electrophoresis and so on
6. Understand concepts in microbial ecology

Course Outcome (COs)

M.Sc.- I ,Semester –I

Paper –I , Chemistry of pesticide and their formulation-I

1. Student get knowledge about history of pesticide.
2. Study different methods of pest control
3. Known about uses of different pesticide and their uses.
4. Learn about methods of pesticide formultion .
5. Acquire knowledge about formulation of packaging

Paper II Soil Science , Fertilizers And Micronutrients

1. Understanding basic nature o f soil .
2. Student could known about nitrogenous and phosphate fertilizers.
3. Learn about micronutrient, plant growth regulators and hormones.
4. They could understand manure, types of manure and their application.
5. Understanding of biofertilizer cultivation and their uses.

Paper III- Introductory and Industrial Entomology

1. Studen learn about characters of insect and their morphology.
2. Understanding of classification and habitat of pest.
3. They could get knowledge about industrial importance of sericulture.
4. Learn about apiculture and types of honey bee.
5. Culture study technique of biocontrol and biocontrol agents like *Trichogramma*, NVP.

Paper-IV- Basic Concepts In Plant Pathology

1. They could get knowledge about plant disease and pathogen.
2. Learn about viral diseases and their structure ,symptoms . disease like BYVMV,EMCV,MYMV.
3. Understanding about bacterial and various bacterial disease .
4. They could study about fungal disease and their management.
5. Learn concepts of plant pathology

M.Sc.- I ,Semester –II

Paper –V -Chemistry of pesticide and their formulation -II

1. Lear methods of synthesis, mode of action and structure of carbamate and inorganic pesticide.
2. Get knowledge of synthetic pyrethroids and other natural pesticide.
3. Learn about important parameters of pesticide formulation.
4. Student learn about application of controlled release formulation.
5. Become skilled at use of different methods of seed treatment.

Paper VI – Analytical technique for agrochemicals.

1. Learn principles of separation techniques and their applications.
2. Will be trained for acid base titration, redox titration etc.
3. Understand working and applications of potentiometry ,pH metry and electrical conductivity.
4. Principle and application of flame photometry and atomic absorption spectroscopy.

Paper VII- Economic entomology

1. Study about the household , stored grain and medicinal plant pest and their management.
2. Get knowledge about livestock and forest pest
3. Learn about polyhouse , greenhouse technology
4. Study concept of ecology and interrelationship among different components.

Paper VIII- Biotechnological aspects of plant protection

1. Get information about agronomy of crop plans
2. Understand about seed technology

3. Study physical, chemical, and biological methods of weed control
4. Learn about the diseases of cereals, millets and fiber crops and their management
5. Study of concepts in biostatistics and its practical use

M.Sc.- II ,Semester –III

PAPER NO. IX , Pesticide Residues and Toxicology

1. Study of pesticide residues in atmosphere, water system and soil.
2. Student could learn about microsomal metabolism of insecticides and selectivity concepts .
3. Understanding of general effect of pesticides on human life.
4. Learn techniques of pesticide analysis.

Paper-X, Pest of Crop Plants and their Control-I

1. Study about pest of cereal and millets and their management.
2. They could get knowledge about pest of pulses and sugarcane.
3. Learn about pest of oil-seeds and forage crop.
4. Understanding of applied entomology, pest management , bio-efficacy ,miscellaneous approaches and recent advances in pest control.

Paper-XI, Analysis of Agrochemicals

1. Study separation technique and gas analysis.
2. Understanding of mechanism of radioactivity and polarography.
3. Learn about UV and IR . and their application.
4. Student learn more about NMR and mass spectrometry.

Paper –XII, Diseases Of Vegetables, Fruits Trees ,Plantation Trees, Forest Tree And Ornamental Plant

1. Student could learn of various diseases of vegetables like bacteria ,viral ,fungal.
2. Learn about disease of fruit trees like mango, apple, banana , cashew nut .citrus and control method..
3. They could understand about forest and plantation tree diseases. and their management.
4. Student could learn about various diseases of ornamental plants and their management.

M.Sc.- II ,Semester –IV

Paper –XIII, Agro-based marketing management

1. Learn about concepts of marketing
2. Study different marketing process and planning
3. Get knowledge about Indian marketing environment
4. Learn marketing ethics
5. Study agriculture import and export process
6. Get knowledge about international marketing
7. get a hold agriculture project analysis

Paper-XIV, Pest of crop plants and their control-II

1. Know the mechanism bio-control of pests
2. Get Knowledge about plantation crop pests
3. Students will acquire knowledge about pests of spices and condiments
4. Study pests of vegetable and their control
5. Know about pests of fruit and fruit trees

Paper-XV, Manufacture of Agrochemicals

1. Get knowledge about unit operations
2. Principles of quality control in research and development
3. Learn pesticide designing and synthesis of pesticides
4. Adopt knowledge about manufacture of pesticides and other agrochemicals
5. Understand occupational health hazards and their control

Paper –XVI, Agriculture Biotechnology and integrated disease management

1. Understand Concepts of tissue culture.
2. Get knowledge of genetic engineering and transgenic plant
3. Study about genetics of resistance.
4. Understand methods of integrated disease management