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Application of Biopesticides in Agriculture

Pawan Kumar Saini

Department of Genetics and Plant Breeding Chandra Shekhar Azad University of Agriculture & Technology, Kanpur, 208002, UP, India E-mail: pawanagriculture@gmail.com

Abstract—Biopesticide is a formulation made from naturally occurring substances that management the pests by non toxic mechanisms and in ecofriendly manner. Biopesticide may be derived from animal (e.g. nematodes), plants (Chrysanthemum, Azadirachta) and micro organisms (e.g. Bacillus thuringiensis, Trichoderma, Nucleopolyhedrosis virus), and include living organisms (natural enemies) etc. When used as a component of Integrated Pest Management (IPM) programs, biopesticide can contribute greatly. Different types biopesticide using in agriculture such as microbial pesticides, plant incorporated protectants, biotic agent (parasitoids and predators). The plant should be a perennial. It should have a wide distribution and be present in large numbers in nature otherwise it should be possible to grow it by agricultural practices. Harvesting should not mean destruction of the plant. Plant should require small space, reduced management and little water and fertilization. Plant should not otherwise have a high economic value. Biopesticide are typically microbial biological pests management that are applied in a manner similar to chemical pesticides. Disadvantages of them are, high specificity, slow speed of action and their requirement of suitable condition for their survival. Even though, biopesticides are best for management the pests of agriculture then the chemicals. Therefore there should be more works on production on biopesticides and encourage people to use biopesticides to management the pests.

Keywords: Biopesticides, Ecofriendly and Chemicals.