

*Commentary***Pesticides: Their types and benefits on crops****Ruhia Bhatt***

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OVERVIEW

Pesticides are chemical substances that are used to kill pests. In general, a pesticide is a chemical or a biological agent such as a virus, bacterium, antimicrobial, or disinfectant that deters, incapacitates, kills, pests. Because pesticides are so widely used, the term pesticide is frequently used interchangeably with the term plant protection product. It's often used to get rid of or control a wide range of agricultural pests that can harm crops and livestock, as well as lower farm productivity. Insecticides are used to kill insects, herbicides are used to kill weeds, rodenticides are used to kill rodents, and fungicides are used to manage fungi, mould, and mildew. Pesticides were utilised by many ancient civilizations to protect their crops from insects and pests. To defend their harvests from creepy crawlies, the Sumerians utilised basic sulphur. Medieval farmers, on the other hand, experimented with toxins such as arsenic and lead on normal yields.

To control body lice and other pests, the Chinese utilised arsenic and mercury compounds. Oil, ash, sulphur, and other compounds were used by the Greeks and Romans to protect themselves, their livestock, and their crops from numerous pests. Examples for pesticides are fungicides, herbicides, and insecticides. Examples of specific synthetic chemical pesticides are glyphosate, Acephate, Deet, Propoxur, Metaldehyde, Boric Acid, Diazinon, Dursban, DDT, Malathion, etc.

The Food and Agriculture Organization (FAO) has defined pesticide as: Any substance or mixture of substances intended for preventing, destroying and controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals, causing harm during or otherwise interfering with the production, processing, storage, transport, or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or substances that may be administered to animals for the control of insects, arachnids, or

other pests in or on their bodies.

Types of pesticides

These are grouped according to the types of pests which they kill

- Insecticides – insects
- Herbicides – plants
- Rodenticides – rodents (rats and mice)
- Bactericides – bacteria
- Fungicides – fungi
- Larvicides – larvae

Chemical families can be used to classify insecticides. Organ chlorines, organophosphates, and carbamates are some of the most well-known pesticide families.

Benefits of pesticides

Pesticides have a significant advantage in that they can save farmers money. By keeping insects and other pests away from crops.

- Controlling pests and plant disease vectors.
- Controlling human/livestock disease vectors and nuisance organisms.
- Controlling organisms that harm other human activities and structures.

Pesticides help farmers with creating more with less land. With the introduction of pesticides, farmers have had the option to create greater harvests on less land, increasing yield efficiency by somewhere in the range of 20 and 50%. What's more, pesticides permit ranchers to boost the advantages of other important horticultural devices, like top notch seeds, composts and water assets. Pesticides are consequently an imperative apparatus for the feasible creation of excellent food and strands.

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