

Fertilizers, pesticides their advantages and agriculture benefits.

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Fertilizers

Fertilizers are chemical or natural chemicals that are used to boost the fertility of the soil. We provide our plants with the nutrients they require to survive and thrive by fertilising the soil. Your plants are more likely to develop more vigorously if fertilisers are mixed into the soil. Fertilizers have two major functions. They add the three major macronutrients (nitrogen, phosphorus, and potassium), three minor macronutrients (calcium, magnesium, and sulphur), micronutrients (such as copper, iron, and zinc), and other agents (often fillers, which have multiple functions) to the soil to supplement and balance the nutrients already present in the soil, which are often depleted after previous growing seasons of use. Some fertilisers also work to improve the soil's efficacy by boosting aeration and improving water retention capacity.

Pesticides

Pesticides include insecticides, herbicides, fungicides, animal repellents, and other substances used to control pests or weeds. Pesticides are chemicals or biological agents that dissuade, incapacitate, or kill pests such as insects, nematodes, microorganisms, or tiny animals that are known to ruin crops, cause nuisance, or spread diseases. The target organism is used to classify pesticides. Herbicides, which target plants, are, by far, the most popular form of pesticide, accounting for slightly over 80% of all pesticide use globally. Herbicides known as weed killers are widely used in lawns, gardens, and farms. Other common pesticides include insecticides, which kill insects, fungicides, which kill all varieties of fungi, including blights, mildews, moulds, and rusts, and repellents, which keep pests away, such as mosquitos.

Advantages of fertilizer

Fertilizer comes in a variety of natural and synthetic forms. Some fertilisers contain chemicals, while others are produced entirely of natural resources like as dead leaves and grass clippings. Fertilizers help plants survive despite the threat of illness or sharing resources with invasive weeds by providing important nutrients like nitrogen to the soil. Compost and manure are examples of organic fertilisers that increase soil quality by feeding the microorganisms that live there. Microorganisms in the soil are fed to assist decrease erosion and maintain the soil aerated and moist. Another type of fertiliser is cut grass clippings, which are distributed over the lawn and supply important phosphate, potassium, and nitrogen. All you have to do is mow your lawn to acquire it.

Advantages of pesticides

The most advantageous benefit of utilising pesticides is their effectiveness against pests that can easily damage entire

crops, destroying entire fields at once. Pesticides help to limit disease spread by suppressing insect and rodent populations. Termiticides are used to keep buildings safe from termite infestations. Pesticides keep the cost of clothing and food down by preventing predators from destroying crops and raising the price of corn and cotton. Pesticides are even used to clean and disinfect surgical instruments and other equipment in operating rooms to maintain the environment sterile and free of bacteria and microbial life forms.

Fertilizers and pesticides' agricultural benefits

The multiple agricultural benefits of fertilisers and pesticides are one of the most compelling arguments for their use. Plants get their nutrition from the nutrients in the soil. Plants require these minerals for optimal growth and development. If nutrient supplies are not restored on a regular basis, the soil will eventually become incapable of supporting plant life. Fertilizers are used to help replenish depleted soils and reintroduce these vital nutrients to the soil. Organic fertilisers, such as livestock manure and compost, increase soil quality, but they release nutrients slowly, whereas artificial fertilisers provide a sudden nutritional boost to the soil throughout the growth season. Pesticides benefit agriculture by assisting in the management of pests that would otherwise harm or kill important plants, resulting in the annual saving of at least 8% of global crops.

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