

Chemical products of agrochemicals used in agriculture and their importance.

Smitha Suhag*

Department of Agricultural and Animal Science, Laboratory of Nutritional Physiology and Feeding, Agricultural University of Athens, Greece

Abstract

Agrochemical contamination may be a genuine danger to natural security. Introduction to agrochemicals had pernicious wellbeing impacts such as apprehensive framework harm and cancer. Organic amplification of diligent agrochemicals moreover happened. Thus, remediation approaches for agrochemical contamination must be an all-encompassing approach, counting environment and edit produces. The coming of nanotechnology made a difference to define profoundly effective strategies for the remediation of agrochemicals.

Keywords: Agrochemical contamination, Dairy cultivating, Commercial planting.

Introduction

Agrochemicals are chemical operators utilized on farmlands to move forward the supplements within the field or crops. They move forward edit development by slaughtering harming creepy crawlies. They are actualized in all shapes of cultivating segments such as cultivation, dairy cultivating, poultry, edit moving, commercial planting, etc. The article sheds light on the different viewpoints of agrochemicals [1].

Agrochemicals are characterized by toxic characteristics, resistance to degradation and the ability to be bio accumulated and transported through air, water, and organisms, across international boundaries and then deposited far from their place of release. Their use helps increase crop productivity in agricultural fields worldwide. Some agrochemicals such as rodenticides, POPs (Persistent Organic Pollutants), OP's (Organophosphate) and Carbamate compounds have posed serious conservation concern for species that are at the top of the food.

Agrochemicals are used to improve the production of crops. Conventional formulations of agrochemicals can contaminate the environment, particularly in the case of intensive cropping. Hence, there is a need for controlled-release formulations of agrochemicals such as polysaccharides to reduce pollution and health hazards. Natural polysaccharides are hydrophilic, biodegradable polymers. This article reviews the use of polysaccharides in the form of micro- and nanoparticles, beads, and hydrogels [2].

Agrochemicals (agricultural chemicals, agrichemicals) are the various chemical products that are used in agriculture. In most cases, the term agrochemical refers to the broad range

of pesticide chemicals, including insecticide chemicals, herbicide chemicals, fungicide chemicals, and nematicides chemicals (chemicals used to kill round worms). The term may also include synthetic fertilizers, hormones, and other chemical growth agents, as well as concentrated stores of raw animal manure [3].

Microorganisms play an instrumental role in pursuing biodegradation of harmful chemicals and pollutants released because of anthropogenic activities. They also act as bio control agents for phytopathogens in agricultural soils. Soil microorganisms have thus been widely accepted as the bio indicators of soil health. Agrochemicals, particularly pesticides, having long persistence in the soil systems severely affect the soil microorganisms, thereby deteriorating the soil health. Amendment of soils with agrochemicals has substantial impact on soil functions and nutrient cycling as well because these chemicals can influence several soil physicochemical properties such as soil moisture, pH, and soil organic carbon [4].

Pesticides that are sprayed on entire fields using equipment mounted on tractors, airplanes, or helicopters often drift away (due to wind or air convection patterns) from the targeted field, settling on nearby plants and animals. Some older pesticides, such as the powerful insecticide DDT (dichlorodiphenyltrichloroethane), remain active in the environment for many years, contaminating virtually all wildlife, well water, food, and even humans with whom it comes in contact [5].

Conclusion

There is now an awareness of the health hazards of pesticides and related chemicals due to the pioneering work that

*Correspondence to: Smitha Suhag, Department of Agricultural and Animal Science, Laboratory of Nutritional Physiology and Feeding, Agricultural University of Athens, Greece, E-mail: smitsuh1au@gmail.com

Received: 08-Aug-2022, Manuscript No. AAASCB-22-77179; Editor assigned: 10-Aug-2022, PreQC No. AAASCB-22-77179(PQ); Reviewed: 23-Aug-2022, QC No. AAASCB-22-77179; Revised: 06-Sep-2022, Manuscript No. AAASCB-22-77179(R); Published: 13-Sep-2022, DOI: 10.35841/2591-7366-6.9.141

commenced in the latter half of the 20th century and has continued into the 21st century. These materials are carefully regulated, and the safety requirements for every pesticide product are spelled out in detail. Most fertilizers have been in an opposite category, considered useful, safe, and inert. These and other environmental effects have prompted the search for nonchemical methods of enhancing soil fertility and dealing with crop pests. These alternatives, however, are still emerging and are not yet in widespread use.

References

1. Ahmad R, Mohsin M, Ahmad T, et al. Alpha amylase assisted synthesis of TiO₂ nanoparticles: structural characterization and application as antibacterial agents. *J Hazard Mater.* 2015;283:171-7
2. Raliya R, Biswas P, Tarafdar JC. TiO₂ nanoparticle biosynthesis and its physiological effect on mung bean (*Vigna radiata* L). *Biotechnol Rep.* 2015;5:22-6.
3. Annamalai J, Ummalyima SB, Pandey A, et al. Recent trends in microbial nanoparticle synthesis and potential application in environmental technology: a comprehensive review. *ESPR.* 2021;28(36):49362-82.
4. Singh P, Kim YJ, Wang C, et al. Biogenic silver and gold nanoparticles synthesized using red ginseng root extract, and their applications. *Artif Cells Nanomed Biotechnol.* 2016;44(3):811-6.
5. Dhand V, Soumya L, Bharadwaj S, et al. Green synthesis of silver nanoparticles using *Coffea arabica* seed extract and its antibacterial activity. *Mater Sci Eng C.* 2016;58:36-43.