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Role of Nanotechnology in Agriculture with Special Reference to Pest Control

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Abstract:

Nanotechnology is a promising field of interdisciplinary research. It opens up a wide cluster of chances in different fields like prescription, pharmaceuticals, hardware and `agriculture. Researcher and scientific experts are effectively occupied with the synthesis of nanoparticles having unordinary properties like physical, biological, optical and others. Because of these properties, nanoparticles have gigantic applications in numerous items like drug, designing, pharmaceuticals and agricultural. Fast improvement and wide uses of nanotechnology achieved a noteworthy increment in the quantity of designed nanomaterials definitely entering our living framework. Plant Production includes a vital living component of the terrestrial ecosystem. Concentrates on the impact of built nanomaterials on plant advancement illuminate diverse courses, conduct and ability of the plants to grow up. Be that as it may, use in agriculture, particularly for plant assurance and creation is an under-investigated zone in the examination group and have not yet made it to the market. Preparatory studies demonstrate the capability of nanomaterials in enhancing plant development, plant insurance, pathogen identification and pesticide and herbicide deposit recognition. There is an awesome concern in regards to the nanomaterial which can possibly apply perilous impacts on the environment and human wellbeing and when we have a nano-pesticide, it turns into a twofold edged weapon. This review condenses the diverse uses of nanomaterials with extraordinary reference to agricultural applications and their part in pest control. Accordingly, nanotechnology would give green and productive alternatives for the control of insect pests in agriculture without hurting the nature.

Keywords: Nanomaterials, Nanotechnology application, Agriculture, Nanopesticides, Pesticide residue detection, Pathogen detection

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