

PESTICIDE RESIDUES IN INDIAN FOOD AND AGRICULTURAL PRODUCTS

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The article aims to present an overview of various aspects of pesticide residues including their accumulation in food products, impact on human health, and the preventive measures to counter their toxic effects. Pesticides are considered a vital component of modern farming, playing a major role in maintaining high agricultural productivity. These are widely used in agriculture mainly to increase crop yields to cater huge supply of food products for increasing world population as well as to protect crops from pests and control insect-borne diseases. In the recent past, pesticide related issues have been extensively highlighted in the media including research journals and attracted wider debate and sharp focus among the interested groups in India. Indiscriminate and excessive application of synthetic pesticides damaged not only the environment and agriculture but also has entered into the food chain thereby affecting health and development. Pesticide residues are present in all agro-ecosystems, but the real risk to human health is through exposure to residues in primary and derived agricultural products. Accumulated pesticide residues in food products have been associated with a broad variety of human health hazards, ranging from short-term impacts such as headaches and nausea, to chronic impacts, such as various cancers, birth defects, infertility, and endocrine disruption. There is an urgent need to develop comprehensive intervention measures to reduce the potential health risk to consumers. The impact of pesticide residues can be minimized by taking certain measures such as the rational use of pesticides, promoting organic farming, exploit natural and bio pesticides, and proper implementation and amendment of pesticide-related laws. It is also essential to improve the monitoring and surveillance programs and research on the topic, as well as training of health professionals to identify and report the cases of pesticide poisoning.

Biography

Madhura Mukadam has completed her PhD from University of Mumbai. She is working as an Associate Professor in Department of Zoology, Gogate Jogalekar College, Ratnagiri. She has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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