

Insecticides and Fungicides and Their Effects

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Abstract

Pesticides represent a broad range of hazardous chemical compounds. Many are toxic and present risks to users and the environment. As a result, selecting, using, and handling pesticides requires skills and training. I have also summarized the history of using pesticides requires skills and training. I have also summarized the history of using pesticides and the considerations that should be followed when selecting and using pesticides. Several aspects of pesticide handling are discussed including pesticide toxicity, classification, and formulations; hazards associated with the mis-use of pesticides, and techniques for safe handling of pesticides. The type and quantity of pesticides imported to Arab Gulf countries are presented, Pesticide laws and regulations provide the proper, safe, and effective use of pesticides essential for the production of food, and for protection of public health, safety, and the environment. Registration laws of United States of America, Saudi Arabia, and United Arab Emirates are discussed. Potential contamination of groundwater with pesticides is a serious concern in the Arab Gulf countries. I have discussed the water resources in these countries, how groundwater accumulates, ways pesticides enter groundwater, groundwater pollution, factors influencing groundwater contamination, and methods to keep pesticides away from contaminating groundwater. Discovering pesticide residues in agricultural products and the environment is another serious concern. The use or no-use of pesticides, pesticide groups according to residues risk, the current status of residues in agricultural products and the environment are discussed. Information on the current techniques and ways to control pests within the integrated management programs, the concept of terminating the use of pesticides and the factors affecting the success of integrated pest management are also presented. Recommendations related to the reduction of the amount of pesticides used, pesticide importation and registration, factors that reduce the negative impacts of pesticides to groundwater, pesticide residues, and the role of integrated management programs in controlling pests are given.

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