

Use of pesticides in agriculture and livestock animals and its impact on environment of India

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SUMMARY : A vast majority of the population in India is engaged in agriculture and is therefore highly exposed to the pesticides used in agriculture. Exposure to pesticides both occupationally and environmentally causes a range of human health problems. Indiscriminate and repeated application of pesticides leads to loss of biodiversity, pest-resistance and other ecological imbalance. Many pesticides are not easily degradable, they persist in soil, leach to groundwater and surface water and contaminate wide environment. In India, the use of pesticides remains the cornerstone of controlling ticks, lice and other ecto-parasites from the livestock animals. In the absence of an effective alternative method of control, reliance on chemicals is bound to increase, which exerts selection pressure on the target organism resulting into the development of resistance. The persistence nature of pesticides led to their accumulation in animal tissues and subsequently causes human dietary exposure through consumption of animal products viz., meat, milk, eggs and sea foods. Low dose but long term exposure of pesticides can cause serious health hazards to human health and environment as well. The reports on occurrence of pesticides residues in animal products manufactured in India are fragmentary, but provide confirmation to the fact that Indian consumers do get dietary exposure to these pesticides. Thus, the intensive pesticide application results in several adverse effects in the environment and human health that cannot be ignored.

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