

**GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA**

UNSTARRED QUESTION NO:3513
ANSWERED ON:07.04.2003
INDISCRIMINATE USE OF CHEMICAL INSECTICIDES
RAMA PILOT

Will the Minister of AGRICULTURE be pleased to state:

- (a) whether insects and pests have developed immunity as a result of indiscriminate use of chemical insecticides during the past three decades;
- (b) if so, whether the immune system of human beings has also been affected;
- (c) if so, whether the scientists of the Haryana Agricultural University, Hissar after testing vegetables and milk have found large quantity of residues of insecticides in them;
- (d) if so, the details thereof; and
- (e) the reaction of the Government thereto?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI HUKUMDEO NARAYAN YADAV)

- (a) Yes, Sir. In India, 33 insect pests are reported to have developed resistance to various insecticides.
- (b) The immune system of human beings is affected wherever there is serious to exposure pesticides. Studies conducted by ICMR's National Institute of Occupational Health at Ahmedabad on sprayers associated with the spraying of malathion and cyfluthrin showed increased levels of serum Immuno globulin G (Malathion group) and serum IgA (Cyfluthrin group). Another study on formulators exposed to combination to pesticides in industrial settings revealed significant elevation in serum IgM and presence of few circulating complexes of IgG and Compliment4 (C4).
- (c) Yes, Sir.
- (d) The Haryana Agricultural University centre under the All India Coordinated Research Project on Pesticides residue is monitoring the pesticide residues in farm gate samples as well as market samples of vegetables. During 2000 they have analysed 42 farm gate and 60 market samples by using multi-residue analysis method. Insecticides detected were DDT, HCH, endosulfan, organophosphates and synthetic pyrethroids. Out of the sample analysed only 4.7% farm gate samples and 46% market samples were found to contain the residues above tolerance limit (MRL). During 2002, 18 samples from the market were analysed but none of the samples exceeded their MRL values.

During 2000-2002, 58 milk samples were analysed. DDT, HCH, endosulfan and synthetic pyrethroids were detected. However, residues of endosulfan in 23 samples, HCH and DDT in 2 samples only exceeded its MRL value.
- (e) The Government is strongly supporting the adoption of Integrated Pest Management (IPM) approach in the overall crop protection programme of the country. IPM emphasizes biological control, resistant planting material, cultural and other non-chemical methods. Pesticides are used only when cost/benefit analysis show that their use is truly justified and that acceptable alternatives do not exist; their use is supplementary, rather than routine. In this way, IPM prevents pests from rapidly developing resistance to pesticides and lengthens the pesticides period of value for pest management.