

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

RAJYA SABHA
UNSTARRED QUESTION NO. 2562
ANSWERED ON 11/08/2023

ADVERSE EFFECT OF INSECTICIDES ON SOIL HEALTH

2562.# SHRI HARNATH SINGH YADAV:

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:-

- (a) whether Government has done any research on the adverse effects of insecticides on soil health;
- (b) if so, the details thereof;
- (c) whether it is a fact that the use of insecticides adversely affects human life, animals, birds, land, water and environment;
- (d) if so, the details thereof;
- (e) whether Government has devised any action plan to ban insecticides; and
- (f) if so, the details thereof?

ANSWER

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE

(SHRI NARENDRA SINGH TOMAR)

(a) to (d): Pesticides being inherently toxic substances are registered for use in the country by the Registration Committee (RC) constituted under section 5 of the Insecticides Act, 1968 (the Act). RC while registering the pesticides for use in the country evaluates their safety and efficacy based on the field trials conducted at State Agriculture Universities/ICAR institutes and lab studies conducted at NABL /ISO:17025/ and GLP accredited laboratories. Based on the studies, Registration Committee approves the details of doses, crops, precautionary measures, antidotes etc on Label and Leaflets. The registered pesticides if used as per Label and Leaflets do not pose any harm to human beings, animals, environment and living organisms other than pests.

(e) & (f): The Government of India, on receipt of new studies/reports/references/information keeps reviewing from time to time the continued use or otherwise of the pesticides with regard to their safety and efficacy. These reviews are undertaken by constituting expert committees. Based

on the recommendations of these committees and in consultation with Registration Committee, the Government bans, restricts, withdraws or refuses registration of pesticides. The Ministry of Agriculture and Farmers Welfare has so far banned or phased out 46 pesticides and 4 pesticide formulations for import, manufacture or use in the country. In addition, 8 pesticide registrations have been withdrawn and 9 pesticides have been placed under restricted use. The details are placed at **Annexure-I**.

**LIST OF PESTICIDES WHICH ARE BANNED,
REFUSED REGISTRATION AND RESTRICTED USE:****(As on 01.06.2023)****I. PESTICIDES / FORMULATIONS BANNED IN INDIA**

A.	Pesticides Banned for manufacture, import and use.	
	1.	Alachlor (Vide S.O. 3951(E), dated 08.08.2018)
	2.	Aldicarb (vide S.O. 682 (E) dated 17 th July 2001)
	3.	Aldrin
	4.	Benzene Hexachloride
	5.	Benomyl (vide S.O 3951(E) dated 8 th August, 2018)
	6.	Calcium Cyanide
	7.	Carbaryl (vide S.O 3951(E) dated 8 th August, 2018)
	8.	Chlorbenzilate (vide S.O. 682 (E) dated 17 th July 2001)
	9.	Chlordane
	10.	Chlorofenvinphos
	11.	Copper Acetoarsenite
	12.	Diazinon (vide S.O 3951(E) dated 8 th August, 2018)
	13.	Dibromochloropropane (DBCP) (vide S.O. 569 (E) dated 25 th July 1989)
	14.	Dichlorvos (Vide S.O. 3951(E), dated 08.08.2018)
	15.	Dieldrin (vide S.O. 682 (E) dated 17 th July 2001)
	16.	Endosulfan (vide ad-Interim order of the Supreme Court of India in the Writ Petition (Civil) No. 213 of 2011 dated 13 th May, 2011 and finally disposed of dated 10 th January, 2017)
	17.	Endrin
	18.	Ethyl Mercury Chloride
	19.	Ethyl Parathion
	20.	Ethylene Dibromide (EDB) (vide S.O. 682 (E) dated 17 th July 2001)
	21.	Fenarimol (vide S.O 3951(E) dated 8 th August, 2018)
	22.	Fenthion (vide S.O 3951(E) dated 8 th August, 2018)
	23.	Heptachlor
	24.	Lindane (Gamma-HCH)
	25.	Linuron (vide S.O 3951(E) dated 8 th August, 2018)
	26.	Maleic Hydrazide (vide S.O. 682 (E) dated 17 th July 2001)
	27.	Menazon
	28.	Methoxy Ethyl Mercury Chloride (vide S.O 3951(E) dated 8 th August, 2018)
	29.	Methyl Parathion (vide S.O 3951(E) dated 8 th August, 2018)
	30.	Metoxuron

	31.	Nitrofen
	32.	Paraquat Dimethyl Sulphate
	33.	Pentachloro Nitrobenzene (PCNB) (vide S.O. 569 (E) dated 25 th July 1989)
	34.	Pentachlorophenol
	35.	Phenyl Mercury Acetate
	36.	Phorate(Vide S.O. 3951(E), dated 08.08.2018)
	37.	Phosphamidon(Vide S.O. 3951(E), dated 08.08.2018)
	38.	Sodium Cyanide (banned for Insecticidal purpose only vide S.O 3951(E) dated 8 th August, 2018)*
	39.	Sodium Methane Arsonate
	40.	Tetradifon
	41.	Thiometon (vide S.O 3951(E) dated 8 th August, 2018)
	42.	Toxaphene(Camphechlor) (vide S.O. 569 (E) dated 25 th July 1989)
	43.	Triazophos(Vide S.O. 3951(E), dated 08.08.2018)
	44.	Tridemorph (vide S.O 3951(E) dated 8 th August, 2018)
	45.	Trichloro acetic acid (TCA) (vide S.O. 682 (E) dated 17 th July 2001)
	46.	Trichlorfon(Vide S.O. 3951(E), dated 08.08.2018)
B.	Pesticide formulations banned for import, manufacture and use	
	1.	Carbofuron 50% SP (vide S.O. 678 (E) dated 17 th July 2001)
	2.	Methomyl 12.5% L
	3.	Methomyl 24% formulation
	4.	Phosphamidon 85% SL
C.	Pesticide / Pesticide formulations banned for use but continued to manufacture for export	
	1.	Captafol 80% Powder (vide S.O. 679 (E) dated 17 th July 2001)
	2.	Dichlorvos (vide S.O. 1196 (E) dated 20 th March 2020)
	3.	Nicotin Sulfate (vide S.O. 325 (E) dated 11 th May 1992)
	4.	Phorate (vide S.O. 1196 (E) dated 20 th March 2020)
	5.	Triazophos (vide S.O. 1196 (E) dated 20 th March 2020)
D	Pesticides Withdrawn (Withdrawal may become inoperative as soon as required complete data as per the guidelines is generated and submitted by the Pesticides Industry to the Government and accepted by the Registration Committee. (S.O 915(E) dated 15th Jun, 2006)	
	1.	Dalapon
	2.	Ferbam
	3.	Formothion
	4.	Nickel Chloride
	5.	Paradichlorobenzene (PDCB)

	6.	Simazine
	7.	Sirmate (S.O. 2485 (E) dated 24 th September 2014)
	8.	Warfarin (vide S.O. 915 (E) dated 15 th June 2006)

* Regulation to be continued in the extant manner for non-insecticidal uses

II. PESTICIDES RESTRICTED FOR USE IN THE COUNTRY

S. No.	Name of Pesticides	Details of Restrictions
1.	Aluminium Phosphide	<p>The Pest Control Operations with Aluminium Phosphide may be undertaken only by Govt./Govt. undertakings / Govt. Organizations / pest control operators under the strict supervision of Govt. Experts or experts whose expertise is approved by the Plant Protection Advisor to Govt. of India except ¹Aluminium Phosphide 15 % 12 g tablet and ²Aluminum Phosphide 6 % tablet. [RC decision circular F No. 14-11(2)-CIR-II (Vol. II) dated 21-09-1984 and G.S.R. 371(E) dated 20th may 1999]. ¹Decision of 282nd RC held on 02-11-2007 and, ²Decision of 326th RC held on 15-02-2012.</p> <p>The production, marketing and use of Aluminium Phosphide tube packs with a capacity of 10 and 20 tablets of 3 g each of Aluminium Phosphide are banned completely. (S.O.677 (E) dated 17th July, 2001)</p>
2.	Captafol	<p>The use of Captafol as foliar spray is banned. Captafol shall be used only as seed dresser. (S.O.569 (E) dated 25th July, 1989)</p> <p>The manufacture of Captafol 80 % powder for dry seed treatment (DS) is banned for use in the country except manufacture for export. (S.O.679 (E) dated 17th July, 2001)</p>
3.	Cypermethrin	<p>Cypermethrin 3 % Smoke Generator is to be used only through Pest Control Operators and not allowed to be used by the General Public. [Order of Hon.ble High Court of Delhi in WP(C) 10052 of 2009 dated 14-07-2009 and LPA-429/2009 dated 08-09-2009]</p>
4.	Dazomet	<p>The use of Dazomet is not permitted on Tea. (S.O.3006 (E) dated 31st Dec, 2008)</p>
5.	Dichloro Diphenyl Trichloroethane (DDT)	<p>The use of DDT for the domestic Public Health Programme is restricted up to 10,000 Metric Tonnes per annum, except in case of any major outbreak of epidemic. M/s Hindustan Insecticides Ltd., the sole manufacturer of DDT in the country may manufacture DDT for export to other countries for use in vector control for public health purpose. The export of DDT to Parties and State non- Parties shall be strictly in accordance with the paragraph 2(b) article 3 of the Stockholm Convention on Persistent Organic Pollutants (POPs). (S.O.295 (E) dated 8th March, 2006)</p> <p>Use of DDT in Agriculture is withdrawn. In very special circumstances warranting the use of DDT for plant protection work, the state or central Govt. may purchase it directly from M/s Hindustan Insecticides Ltd. to be used under expert Governmental supervision. (S.O.378 (E) dated 26th May, 1989)</p>
6.	Fenitrothion	<p>The use of Fenitrothion is banned in Agriculture except for locust control in scheduled desert area and public health. (S.O.706 (E) dated 03rd May, 2007)</p>
7.	Methyl Bromide	<p>Methyl Bromide may be used only by Govt./Govt. undertakings/Govt. Organizations / Pest control operators under the strict supervision of Govt. Experts or Experts whose expertise is approved by the Plant Protection Advisor. [G.S.R.371 (E) dated 20th May, 1999 and earlier RC decision]</p>
8.	Monocrotophos	<p>Monocrotophos is banned for use on vegetables. (S.O.1482 (E) dated 10th Oct, 2005)</p>

9.	Trifluralin	<p>(i) The Registration, import, manufacture, formulation, transport, sell and its all uses except use in wheat shall be prohibited and completely banned from 8th August, 2018.</p> <p>(ii) A cautionary statement has to be incorporated in the label and leaflet that it is toxic to aquatic organism, hence should not be used near water bodies, aquaculture or pisciculture area.</p> <p>(vide S.O 3951(E) dated 8th August, 2018)</p>
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