

Lecture 20 THE INSECTICIDES ACT, 1968

An act to regulate the import, manufacture, sale, transport, distribution and use of insecticides with a view to prevent risk to human beings on animals and for matters connected therewith.

Salient features of the Insecticides Act

Compulsory registration of the product at the Central level and licenses for manufacture, formulation and sale at state level.

Inter – departmental / ministerial / organizational co-ordination is achieved by a high level advisory board “**Central Insecticides Board**” with 24 members (to be raised to 29 by an amendment) drawn from various fields having expert knowledge of the subject.

“**Registration Committee**” to look after the registration aspects of all Insecticides.

Establishment of enforcement machinery like Insecticide Analysts and **Insecticide Inspectors** by the Central or State Government.

Establishment of **Central Laboratory**

Power to prohibit the import, manufacture, and sale of pesticides and also **confiscate** the stocks. The offences are punishable and size and other penalties are prescribed.

Both the Central and State Governments are empowered to make rules, prescribe forms and fees.

The Central Insecticides Board (CIB)

The Central Insecticides Board advises on matters relating to:

The risk to human beings or animals involved in the use of insecticides and the safety measures necessary to prevent such risk.

The manufacture, sale, storage, transport, distribution of insecticides with a view to ensure safety to human beings and animals.

Board members

The Director General Health Services → Chairman

The Drugs Controller, India

The Plant Protection Adviser to the Government of India

The Director General, ICAR

The Director General, ICMR

Totally 24 members – others from various other fields such as BIS, Animal husbandry, Pharmacology, Fisheries, Wild life etc.,

The Registration Committee (RC)

RC comprises a Chairman and five members. Among them are:

1. Deputy Director General, Crop Sciences, ICAR-Chairman
2. Drugs Controller, India
3. Plant Protection Adviser to the Government of India

Role of RC

To register insecticides after scrutinizing them with regard to efficacy and safety.

Registration of Insecticides

When applied for registration, the RC allots a registration number within a period of 12 months.

When pesticide registered for first time in India, provisional registration for two years given initially. After data generation full registration allowed.

The Central Insecticides Laboratory (CIL)

CIL carries out the analysis relating to insecticide registration and other matters.

Insecticide Inspectors

Central or State Government appoints person called Insecticide Inspector who is empowered.

- a. To enter and search premises
- b. To stop the distribution or sale or use of insecticide
- c. Take samples of insecticide and send for analysis

The Insecticides Rules, 1971

There are nine chapters in the insecticide rule, 1971 relating to the functions of CIB, RC, CIL, grant of licenses, packing, labelling, first aid, antidote protective clothings etc.,

Insecticide residues and waiting period

Residues

The toxicant that remains in the environment (like soil, water, plant harvested produce, etc.) after the application of insecticides. The duration of retention is called persistence.

- Only 1% of the pesticide applied to crop reaches the target. The remaining 99% contaminate soil, water, air, food, forage, etc.
- When surveyed in India 20% of market samples of food commodities were having residues above legal MRL (maximum residue limits).
- 37% of milk samples contaminated with DDT above MRL (0.05 mg/kg)
- Due to contamination the dietary intake of DDT and HCH are above ADI (acceptable daily intake) in India.
- Waiting period must be observed which is the minimum period allowed between time of application of pesticide and harvest of commodities in order to allow the toxicant residue level to come below MRL.

The following are some examples of waiting period of some chemicals in a few important crops

Crop	Insecticide and Dose	Waiting period (days)
1. Chillies	Dicofol 0.05%	1
	Quinalphos 0.05%	8

2.	Tomato	Phosalone 0.05%	3
		Quinalphos 0.05%	5
3.	Brinjal	Phosalone 0.05%	2
		Endosulfan 0.07%	3
		Aldicarb 1 kg a.i./ha	60

Role of pesticides in IPM

1. Pesticide should be applied only based on the need, i.e. if pest reaches ETL.
2. It should be judiciously combined with other components of IPM and pesticides should be used as last resort.
3. When pest population approaches ETL, insecticides are the only means of preventing economic damage.
4. Insecticides are available in easy and ready to use packings.
5. Easy to apply and large area can be covered.
6. A range of insecticides are available depending on crop, insect and nature of damage.
7. Pesticides which are cost effective (High benefit/cost ratio) and safe (High benefit/risk ratio) should be used in IPM.