Legislative/Regulatory Methods of Pest Control
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Some of the Exotic pests introduced into our country are
1. Potato Tuber Moth Pthorimea Operculella
2. Cotton Cushiony Scale Icerya Purchasi
3. Wooly Aphis On Apple Eriosoma Lanigerum
4. San Jose Scale Quadraspersidiotus Perniciosus
5. Golden Cyst Nematode Globodera Rostochinesis
6. Giant African Snail, Achatina Fulica
7. Serpentine Leaf Miner Liriomyza Trifolii
8. Spiralling Whitefly, Alerodicus Dispersus
9. Coconut Mite, Aceria Guerreoronis Etc

Quarantine: derived from Latin word Quarantum which means ‘forty (40)’
Plant quarantine is defined as the legal enforcement of the measures aimed to prevent pests from spreading or to prevent them to multiply further in case they have already gained entry and have established in new restricted areas

importance of imposing restrictions from one country to another was realized when
- The grapevine phylloxera got introduced into France from America by about 1860
- The san jose scale spread into USA in the later part of the 18th century and caused severe damage
The first Quarantine Act in USA came into operation in 1905.

Govt. of India passed an Act in **1914** entitled “**Destructive Insect and Pests Act of 1914**” to prevent the introduction of any insect, fungus or other pests into our country.

The legislative measures in force now in different countries can be grouped into five classes:

1) **Legislation to prevent the introduction of foreign pests:**
   - To prevent entry of foreign pests all countries have restrictions.
   - **Directorate of Plant Protection Quarantine and Storage (DPPQ&S)** was established in Faridabad in 1946.
   - From 1949, DPPQS deals with commercial import of grains, plants and plant products.
   - It has a network of **35 Plant Quarantine Stations** spread across the country including seaports, airports and land frontiers.
   - Operate under the provisions made under the “**Destructive Insect and Pests Act of 1914**”.
   - Government of India has approved **NBGR**, New Delhi for quarantine processing of all germplasm including transgenic planting material under exchange for research purposes.
   - **Forest Research Institute (FRI)**, Dehradun for forest plants.
   - **Botanical Survey of India (BSI)**, Kolkatta for ornamental plants to enforce quarantine laws.

**Phytosanitary certificate** - The consignment should also be accompanied with the certificate issued by the Officers of agriculture department of the exporting country so as confirm that the consignments are pest free.
2) Legislation to prevent the spread of already established pests:

- The **DIPA, 1914**, have empowered the states to enact such laws as are necessary to prevent the spread of dangerous insects within their jurisdiction.
- The Madras Government enacted the **Madras Agricultural Pests and Diseases act in 1919** and was the first state to enact such laws in our country.
- To prevent the spread of pests or diseases or weeds form one part of the state to another.
- **Cottony cushiony scale** when localized in Nilgiris and Kodiakanal none of the alternate host plants were permitted to get transported from these areas.
- Quarantine stations were opened at **Mettupalayam and Gudalur of Nilgiris and at Shenbegmur station of Kodaikanal in 1943** and were closed subsequently.

3) Legislation to enforce the application of effective control measures to prevent the damage by established pests:

- Under the state pests act, the farmers were asked to remove and **destroy coconut leaf lets** infested with **black headed caterpillar Opisina arenosella** around **Mangalore in 1923 and in 1927 in Krishna and Guntur districts**

4) Legislation to regulate the activities of men engaged in pest control operations:

They have to take certain precautionary measures to avoid pesticide poisoning and undergo regular medical checkup.
5) Legislation to prevent the adulteration and misbranding of the insecticides

- To avoid malpractices and supply of substandard chemicals, the pesticide products are to be standardized through the **Indian Standards Institute**
- Such products carry ISI mark and are expected to confirm the level of a.i (Active ingredient)
- The **Insecticide Act, 1968** has been enforced on 2nd September, 1968 by the Government of India to regulate the import, manufacture, sale, transport and distribution and use of insecticides
- The government of India also constituted the **Central Insecticide Board (CIB)** to advise the state and central governments as per this act
- The **insecticide rules of 1971** framed under the Insecticides Act 1968 had come in to force in 1971

**Invasive Alien Species (IAS):** is a species outside of its native range whose introduction and or spread threatens biodiversity