

## **Lecture 15 LEGAL CONTROL METHODS - DEFINITION - PEST INTRODUCTIONS - QUARANTINE - PHYTOSANITARY CERTIFICATE PEST LEGISLATION LEGAL CONTROL/LEGISLATIVE CONTROL/REGULATORY CONTROL**

Definition: Preventing the entry and establishment of foreign plant and animal pest in a country or area and eradication or suppression of the pests established in a limited area through compulsory legislation or enactment

### **Pests Accidentally Introduced Into India**

1. Pink bollworm - *Pectinophora gossypiella*
2. Cotton cushion scale - *Icerya purchasi*
3. Woolly aphid of apple - *Aphelinus mali*
4. SanJose scale - *Quadraspidiotus perniciosus*
5. Potato tuber moth - *Gnorimoschima operculella*
6. Cyst (Golden) nematode of potato - *Globodera* sp.
7. Giant african snail - *Acatina fullica*
8. Subabul psyllid - *Heteropsylla cubana*
9. Bunchytop disease of banana
10. Spinnalling whitefly - *Aleyrodicus dispersus*

### **Foreign Pests From Which India Is Free**

Mediterranean fruitfly - *Ceratitis capitata*  
Grapevine phylloxera  
Cotton boll weevil - *Anthonomos grandis*  
Codling moth of apple - *Lasperryisia pomonella*

### **Quarantine**

Isolation to prevent spreading of infection

### **Plant Quarantine**

Legal restriction of movement of plant materials between countries and between states within the country to prevent or limit introduction and spread of pests and diseases in areas where they do not exist.

### **PEST LEGISLATIONS**

- 1905 - 'Federal Insect Pest Act' - first Quarantine act against SanJose scale  
1912 - 'US Plant Quarantine Act'  
1914 - 'Destructive Insects and Pests Act' of India (DIPA)  
1919 - 'Madras Agricultural Pests and Diseases Act'  
1968 - 'The Insecticides Act'

## DIFFERENT CLASSES OF QUARANTINE

### **Foreign Quarantine (Legislation to prevent the introduction of new pests, diseases and weeds from foreign countries)**

Plant quarantine inspection and treatments at sea ports of Mumbai, Kolkata, Cochin, Chennai and Visakapattinam and airports of Amritsar, Mumbai, Kolkata, Chennai and New Delhi

Import by post parcel prohibited except by scientists

Import of plant materials prohibited or restricted

Import permits required for importation of plant material

Phytosanitary certificate from the country of origin is required

**Phytosanitary certificate** is issued by State Entomologist and Pathologists to the effect that the plant or seed material is free from any pest or disease

- a. Fumigation of imported plant material based on need
- b. Taking care of pests of quarantine concern in India

### **Restriction imposed on the importation of**

- i. Sugarcane setts - to prevent West Indies sugar weevil
  - ii. Coffee seeds - to prevent coffee berry borer
  - iii. Cotton seeds - to prevent cotton boll weevil
- a. Export of pepper, cardamom and tamarind restricted
  - b. In 1946, Directorate of Plant Protection, Quarantine and Storage, Government of India established - for inspection of export and import of agricultural commodities.

### **2. Domestic quarantine** (within different parts of country)

- Fluted scale *Icerya puchasi* noticed in Nilgiris and Kodaikanal in 1943 in Wattle trees. Quarantine stations at Mettupalayam and Gudalur for Nilgiris and Shenbaganur for Kodaikanal to prevent spread of fluted scale in TN.
- Preventing movement of Banana from Palani hills to prevent Bunchy top spread

**3. Legislation to take up effective measures to prevent spread of established pests** Example: Cotton stem weevil, Groundnut RHC, Coffee stem borer, Coconut black headed caterpillar (BHC), Sugarcane top borer.

#### **i. Stem weevil of cotton (Cambodia cotton, 1913)**

Previous crop to be removed before Aug.1

Next crop to be sown not before Sep. 1 to keep land free of cotton for sometime

#### **ii. RHC of groundnut (1930)**

- Collection of pupae in summer ploughing
- Putting light traps and bonfires
- Hand picking of egg and larvae
- Spread leaves in field, trench, collect and destroy

### **iii. Stem borer of coffee (1946)**

This act is still in force in Salem, Coimbatore, Madurai and Nilgiris

- All infested plants to be removed and destroyed by 15<sup>th</sup> December every year
- Swabbing with wettable powder (Carbaryl) on stem and branch

**Legislation to prevent the adulteration and misbranding of insecticides and to determine the permissible residues in food stuff.**

**Legislation to regulate the activities of men engaged in pest control**

### **THE INSECTICIDES ACT, 1968**

- Implemented in 1971 (Insecticides Rule, 1971)
- Safety oriented legislation
- Regulates import, manufacture, storage, transport, sale, distribution and use of insecticides with a view to prevent risk to human beings and animals
- Regulatory provision - compulsory registration, licensing, inspection, drawal and analysis of samples, detention, seizure and confiscation of stocks, suspension and cancellation of licences, etc.
- Enforcement of the act is joint responsibility of central and state governments.
- Statutory bodies
  - (i) Central Insecticides Board (CIB) (28 members)  
Chairman (CIB) - Director General of Health Services
  - (ii) Registration Committee (RC) (5 members)  
Chairman (RC) - Deputy Director General, Crop Sciences, ICAR

Salient features of the insecticides act (1968)

- Compulsory registration with CIB (Central level)
- Licence for manufacture, formulation and sale at state level
- Inter departmental/Ministerial/Organisational co-ordination achieved by high level Advisory Board "Central Insecticides Board" with 28 members from various fields
- RC to look after registration aspects of insecticides
- Enforcement by Insecticide inspectors at state/central level
- Power to prohibit the import, manufacture and sale of insecticides and also confiscate stocks. Guilty are punishable.

### **Role of Plant Quarantine in the Export of Agricultural Commodities**

International Plant Protection Convention (1951) of FAO, UN.

Article V of the convention makes it mandatory for member countries to issue Phytosanitary certificate (PSC)

PSC should be conformity with Plant Quarantine Regulations of importing country.

Agricultural commodities during export should be accompanied by PSC.

### **General requirement of PSC**

- Inspected agrl. commodities should be free from pest/diseases
- Takes time for inspection - seek prior guidance from plant quarantine authorities in India

### **Special requirements of PSC**

- Additional declarations required from importing country for freedom of commodities from specific pests/diseases
- Obtain complete details of requirements of importing country

### **Technical limitations**

- Rules not relaxable. No compromise with principles of Plant Quarantine.

### **Procedure for getting PSC**

- Application to be submitted to Plant Quarantine and Fumigation station
- Will be scrutinised, samples drawn and examined for pest, diseases, weeds
- If free PSC issued
- If found infested - rejected, PSC not issued
- Sometimes treatment (fumigation) given and PSC issued

### **Authority to issue PSC**

Union Govt. of Agrl. has authorised officers in Central and State Govt. and UT PPA to Govt. of India - Heads of Unit

Airports	Seaports	Land frontiers
Amristar	Bombay	Amristar Rail
Bombay	Tuticorin	Attari Rail
Calcutta	Bhavnagar	Attari Road
Hyderabad	Calcutta	Bongaon
Chennai	Cochin	Gede
New Delhi	Chennai	Kalimpong
Patna	Nagapattinam	Panitanki
Varanasi	Rameswaram	
Tiruchirapalli	Visakhapatnam	
Trivandrum		