PLANT PROTECTION

GOVERNMENT OF INDIA

MINISTRY OF AGRICULTURE

(DEPARTMENT OF AGRICULTURE AND CO-OPERATION)

DIRECTORATE OF PLANT PROTECTION,QUARANTINE, STORAGE

BY

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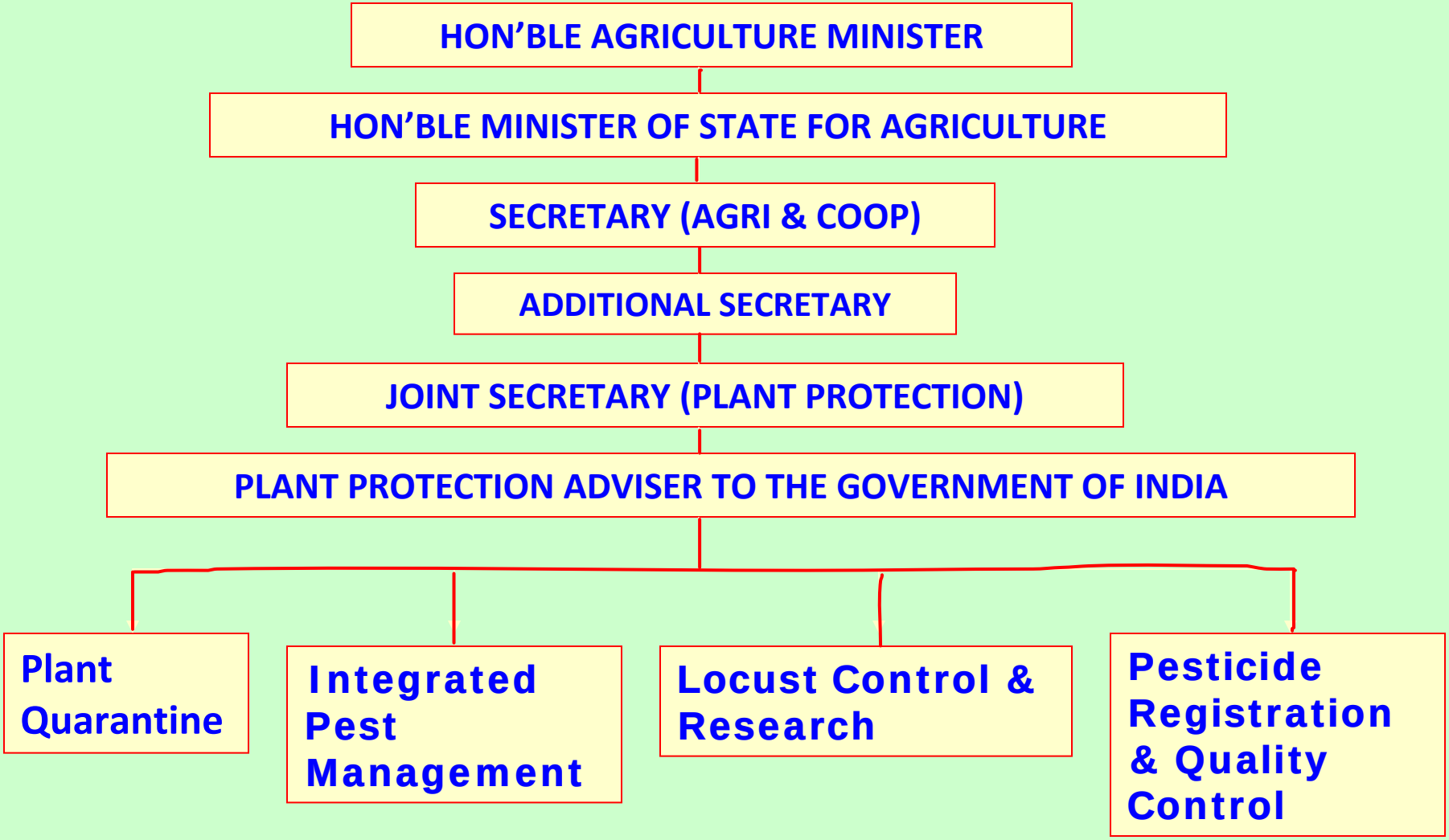
NATIONAL PLANT PROTECTION ORGANIZATION



MANDATE

1. TO POPULARISE ADOPTION OF INTEGRATED PEST MANAGEMENT (IPM) THROUGH TRAINING AND DEMONSTRATION IN CROPS

2. TO ENSURE AVAILABILITY OF SAFER AND EFFECTIVE PESTICIDES THROUGH REGULATORY MEASURES UNDER THE INSECTICIDES ACT, 1968.

3. **TO PREVENT INTRODUCTION OF EXOTIC PESTS INIMICAL TO INDIAN AGRICULTURE BY IMPLEMENTING "Destructive Insects and Pests Act, 1914** (DIP Act, 1914)". **AND 'PLANT QUARANTINE ORDER, 2003'.**

4. **TO KEEP WATCH AND CONTROL LOCUST IN SCHEDULED DESERT AREA.**

PLANT QUARANTINE

- **STRENGTHENING AND MODERNIZATION OF PLANT QUARANTINE FACILITIES IN INDIA**

- **The import of plants and plant material are covered under *The Plant Quarantine (Regulation of Import into India) Order, 2003* issued under the Section 3 (1) of DIP Act , 1914 and amendments issued there under from time to time.**

- **Inforce from 1.1.2004**

PQ – Set-up

- **35 PQ Stations at Airport, Seaports & Land frontier.**

- **5 Stations are major viz.**
  - **National Plant Quarantine Station - New Delhi.**
  - **Regional Plant Quarantine Stations**
    - **Amritsar, Chennai, Kolkata & Mumbai.**

- **These 5 Stations are ISO Certified.**

PQ - Activities

- **Development of National Standards**
  - **15 National Standards consistent with International Standards have been developed and implemented**
- **SOP on export inspection and phytosanitary certification.**
- **243 PRA have been carried out during 2008-09.**
- **Based on import PRA, 91 regulated pests have been notified under "PQ Order 2003"**

PQ Activities

- **17 Commodities notified in Schedule-V can be imported on the recommendation of identified institutions.**

- **Commodities regulated to import with additional declarations for specific regulated pests and special treatment conditions are covered in Schedule –VI. 677 commodities have been notified.**
  - *** Import Permit and PSC are mandatory for commodities covered in Schedule-VI**

- **Commodities of least risk category for consumption purpose without import permit are specified in Schedule-VII. 289 commodities are notified**

PQ - Activities

- **Establishment of Pest Free Areas of Production**
  - **National Integrated Fruit Fly surveillance Programme.**
  - **Survey and Monitoring of Mango Nut Weevil (*Sternochetus mangiferae)* and Pulp Weevil (*Sternochetus frigidus)*.**
  - **National Invasive Weeds Surveillance Programme.**

PQ - Activities

- **Government of Punjab (India), has declared 15 districts as Pest Free Area (PFA) during 2007-08 for Brown rot (*Ralstonia solanaecarum)* and Ring rot (*Clavibacter michijanensis)* of Potato in Punjab for export of Potato to EU countries.**
  - **Recognition – in process**

- **A project on "Substitute of Methyl Bromide for Pre-shipment fumigation of Food commodities" completed during 2008.**
  - **Sulfuryl Fluoride – Promising.**

Accessibility to the internet and Web site

- All stations have been linked through net.
- Working of all PQ Stations is computerised.
- National e-Governance plan (NeGP-A) in Agriculture with the help of National Institute for Smart Government is in progress .
- Disseminate information on plant quarantine regulation and procedures "http//:www.plantquarantineindia.org" website.
- Further web based custom linked work system being put in place.

Interception of Quarantine Pests

- ***Embellesia allii*** **on Garlic imported from Pakistan.**
- ***Ephestia kuehniella*** **in almonds imported from USA.**
- ***Cryptolests frrugineus*** **on *Avena sativa* imported from Australia.**
- ***Pseudopityopthorus spp.*** **in logs imported from Germany.**

etc.

New ISPM proposal

- **“Regulating import of micro propagation plant material” proposed during 26th Session of APPPC.**

Phytosanitary Capacity Building

- **New stations being opened.**
- **Manpower**
  - **Training**
    - **Designated Inspection Authorities**
    - **PSC issuing authorities.**
- **Lab infrastructure.**

Wood Packaging Material Certification

- **National Standards for ISPM-15**
- **Guidelines for certification of forced hot-air treatment facilities for wood packaging material**
- **Quarantine treatments and application procedures-1. Methyl Bromide fumigation**
- **Guidelines for assessment, accreditation & auditing of fumigation agencies**

- **Facilities accredited**
  - **Heat treatment (HT) - 109**
  - **Methyl bromide (MB) fumigation - 312**

Strengthening and Modernization of Pest Management Approach in India

- **COMPONENTS**

  - **Integrated Pest Management**

  - **Locust control and research.**

  - **Implementation of Insecticides Act, 1968.**

Central IPM Centres

31 Central Integrated Pest Management Centres in 28 States and one Union Territory

IPM Achievements (2008 - 2009)

- **Pest monitoring** **789 thousand ha.**
- **Field release of bio-control agents** **1662 million**
- **Area coverage** **661 thousand ha.**

(Augmentation & Conservation)

IPM Training conducted (2008-2009)

Season Long Training Programme	2
Master trainers trained	80
Farmers' Field Schools organized	812
Agriculture/Horticulture officers trained	3966
Farmers trained	24261

IPM Package

To promote IPM, Directorate of PPQ&S has developed 77 IPM package of practices on major Agriculture / Horticulture crops in association with ICAR,SAUs, State Deptt. of Agri. / Hort. and the same have been circulated to all states/UTs for translation in local languages.

- Packages posted on

web site www.dacnet.nic.in/ppin

Three Tier-Pest Surveillance and Advisory system

- **National Pest Surveillance and Advisory Unit (NPSAU)**
  - **At national level.**
- **State Pest Surveillance and Advisory Unit (SPSAU)**
  - **At State level.**
- **District Pest Surveillance and Advisory Unit (DPSAU)**
  - **At District Level.**

Seed Treatment Campaign

- Nationwide Campaign.
- To adopt 100% Seed treatment.
- Agricultural/Horticultural crops.
- Important role played by
  - Pesticide industry
  - Agricultural Technology Management Agencies.
  - Central Integrated Pest Management Centres (CIPMCs).
  - Krishi Vigyan Kendras (KVKs)
  - Farmers Club, SAUs, NGOs.

Impact of IPM

- **Increase in yield / hectare.**
  - **5.9 to 25% in vegetables.**
  - **6.72 to 40.14% in rice**
  - **22.7 to 26.63% in cotton**

- **Reduction in chemical pesticide spray.**
  - **60 to 100% in vegetable.**
  - **50 to 100% in rice.**
  - **29.62 to 50.50% in cotton**

- **Reduction in consumption of chemical pesticides.**
  1991-92 : 75033 MT (Tech. grade)
  2007-08 : 43,630 MT (Tech. grade).

- **Increase in consumption of bio-pesticide / plant based pesticides.**
  1994-95 : 123 MT
  2008-09 : 7,436 MT

LOCUST CONTROL AND RESEARCH

- **Locust Warning Organization (LWO) established in 1939 was amalgamated with Directorate of Plant Protection, Quarantine and Storage in 1946.**

- ***OBJECTIVES AND ACTIVITIES***

  - To monitor and forewarn the locust activity/ situation in Scheduled Desert Area of Rajasthan, Gujarat by way of intensive and extensive locust survey and surveillance.

  - To organize locust control operations for preventing the locust menace and crop losses in case of any locust upsurge/ invasion.

LOCUST SITUATION

- India remained free from gregarious desert locust activity during last two years.
- Solitary desert locust observed in some areas of Rajasthan in 2007-08.
- Migratory locust infestation reported at Ladakh region of Jammu & Kashmir in May, 2007.
- 12 Indo-Pak Border Meetings held during 2008-09.
- Contingency plan for Locust surveys to cover 10 million ha. in 2009-10.

Pesticide Management

- **TO PREVENT RISK TO HUMAN BEINGS, ANIMALS, ENVIRONMENT AND THE MATTERS CONNECTED THEREWITH.**

INSECTICIDES ACT, 1968 & the INSECTICIDES RULES, 1971

REGULATES-

IMPORT
MANUFACTURE
SALE
TRANSPORT
DISTRIBUTION
USE

PROVISIONS OF THE ACT

CENTRAL GOVERNMENT - **RESPONSIBLE FOR REGISTRATION**

STATE GOVERNMENTS - **RESPONSIBLE FOR ENFORCEMENT OF THE PROVISIONS RELATING TO**

- **MANUFACTURE**
- **SALE**
- **TRANSPORT**
- **DISTRIBUTION**
- **USE**

CENTRAL & STATE GOVERNMENT - **RESPONSIBLE FOR QUALITY CONTROL.**

STATUTORY BODIES

- **CENTRAL INSECTICIDES BOARD**
  - **APEX ADVISORY BODY**
    - **CENTRAL & STATE GOVERNMENTS**

- **REGISTRATON COMMITTEE**
  - **TO REGISTER PESTICIDES**

- **CENTRAL INSECTICIDES LABORATORY**
  - **REFERRAL LABORATORY**

REGISTRATION COMMITTEE

- **REGISTERS**

  - pesticides under Section 9 of the Act after verifying their efficacy and safety to human beings and environment.

  - Provisional registration under Section 9(3B) for 2 years for Data Generation

  - Regular registration under Section 9(3)

  - Repeat registration under Section 9(4)

  - 221 pesticides registered so far. **43630 MT (Tech. Gr.)**

  - 19 Bio-pesticides registered.

PESTICIDE RISK REDUCTION

- **Registration – Data requirement**
- **Training on safe, judicious use of pesticides**
- **Review by expert committees**

- **PESTICIDES REFUSED REGISTRATION - 18**
- **PESTICIDES BANNED FOR MANUFACTURE, IMPORT & USE - 27**
- **PESTICIDES FORMULATION BANNED FOR USE BUT MANUFACTURE IS ALLOWED FOR EXPORT - 2**

PESTICIDE RISK REDUCTION

- PESTICIDES FORMULATION BANNED FOR IMPORT MANUFACTURE & USE - 4
- PESTICIDE WITHDRAWN - 7
- PESTICIDES RESTRICTED FOR USE IN INDIA - 13
- PESTICIDES BANNED/SEVERLY RESTRICTED IN SOME COUNTRIES BUT ARE STILL USED IN INDIA - 66
- PESTICIDES USED IN INDIA - 221
- STATUS OF IMPORT AND/OR USAGE OF WHO EXTREMELY HAZARDOUS CLASS IA PESTICIDES - 28
- EXTREMELY HAZARDOUS CLASS IB PESTICIDES - 56

OBSOLETE PESTICIDES

- **Stocks exist**
- **Hazardous waste Management**
  - **Environment Protection Act**

- **Dieldrin stocks - 33.100 MT (Tech.) / 15.640 kl.(18% formu.)**
  disposal planned with GTZ

International Conventions on Pesticide Management

- **India ratified**

  Rotterdam,

  Stockholm,

  Basel Conventions

  Montreal Protocol
- **Nodal Ministry – Environment & Forests**
- **DNA – PIC – Pesticides – Director (Plant Protection), Department of Agriculture**

NEW LEGISLATION

- **The legislation "Insecticides Act, 1968" is now proposed to be replaced with a new legislation, " The Pesticide Management Act".**

- **The new legislation widening its scope with a view to manage pesticides through life cycle approach, encourage introduction of new molecules by providing data protection for a certain period and strengthen quality monitoring system.**

Online Registration

- **On line Submission of application for registration and web based communication with applicant – under process.**

Monitoring of Pesticide Residues

- **The Department of Agriculture & Cooperation is implementing Scheme**
  - **Monitoring of Pesticide Residues at National level**

  to monitor status of pesticide residues in agricultural commodities and environment so that corrective measures can be taken, as required.

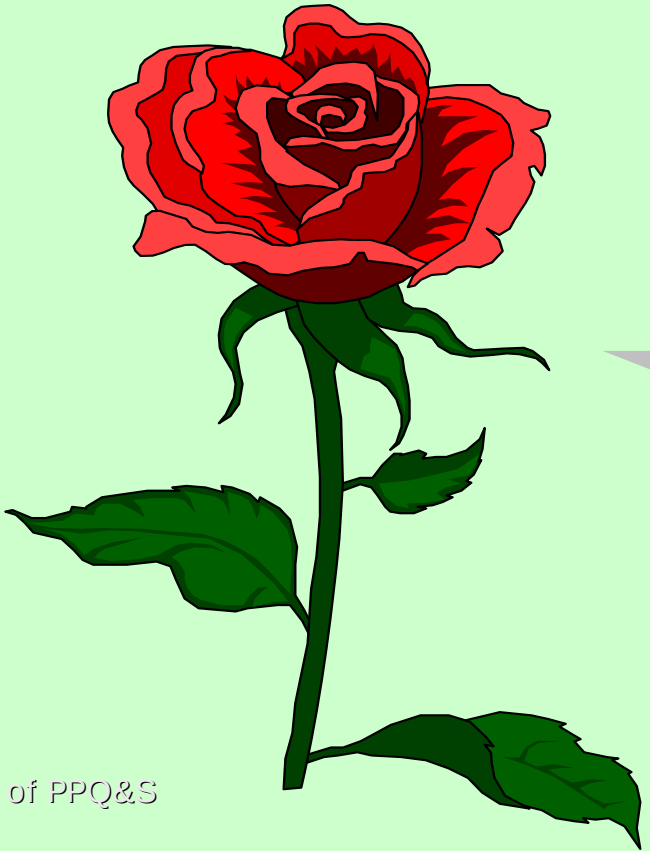
- **21 laboratories network.**

Pesticides Residues in Food

Food Safety – Ministry of Health

- **Data provided by CIB&RC**
- **MRL fixed under**
  - **The Food Safety & Standards Act, 2006**
- **Pesticides registered only after MRL is fixed**

THANK YOU



Dte. of PPQ&S