

## ISPM 6: Guidelines for Surveillance



## Surveillance

### Definition:

An official process which collects and records data on pest occurrence or absence by survey, monitoring or other procedures



## Scope of Surveillance Standard

The standard describes components of survey and monitoring systems for use in:

- pest risk analyses
- establishment of pest free areas
- the preparation of pest list



## 1. General Surveillance

### 1.1 Use of information

- to support declarations of pest freedom
- to aid early detection of new pests
- to report to other organisations (FAO, RPPO, other NPPOs)
- to compile host and commodity pest lists and distribution records



## 1. General Surveillance

### 1.1 Sources of information

- NPPO or designated institution acting as national repository for plant pest records
- Research institutions, universities, scientific bodies
- Producers, consultants
- Museums, general public,
- Scientific and trade journals
- Contemporary observations
- Regional and international sources



## 1. General Surveillance

### 1.2 Collection, Storage and Retrieval

- NPPO or other institution designated as national repository for plant pest records
- A record keeping and retrieval system
- Data verification procedures
- Communication channels to transfer information from the sources to the NPPO



## 1. General Surveillance

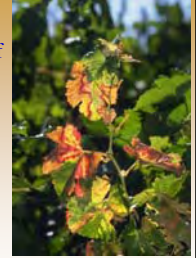
### 1.2 Collection, Storage and Retrieval System (cont'd)

- Incentives to report such as:
  - ✓ Legislative obligations
  - ✓ Cooperative agreements (between the NPPO & specific agencies)
  - ✓ Use of contact personnel to enhance communication to and from the NPPO
  - ✓ Public awareness/education programmes



## 2. Specific Surveys

- Detection- presence or absence
- Delimiting- to establish boundaries of infested or non infested areas
- Monitoring- ongoing survey to verify characteristics of a pest population



## 2. Specific Surveys

Should include:

- definition of purpose
- target pest
- scope (geographic area, production system)
- timing (dates, frequency, duration)
- target commodity (if applicable)



## 2. Specific Surveys

Should include:

- **statistical basis**
  - level of confidence
  - number of samples
  - number of sites
  - frequency of sampling
  - assumptions



## 2. Specific Surveys

Should include a description of survey methodology and quality management system to explain:

- Sampling procedures (attractant trapping, whole plant sampling, visual inspection, sample collection and laboratory analysis)
- Diagnostic procedures
- Reporting procedures



## 2.1 Pest Surveys

### Selection of survey sites

- previously reported presence and distribution
- biology of the pest
- host plant distribution
- climatic suitability of sites
- probable points of entry
- possible pathways of spread



## 2.1 Pest Surveys

### Timing of survey procedures determined by:

- Life cycle of the pest
- Timing of pest management programmes
- Stage of growth/maturity of the host plant(s)/plant parts attacked



## 2.1 Pest Surveys

### Timing of survey procedures determined by:

- life cycle of the pest
- timing of pest management programmes
- stage of host plant /plant part attacked



## 2.1 Pest Surveys

- Sampling may be targeted or random
- should be designed to favour detection except where quantitative indication is required



## 2.2 Commodity or host surveys

### Selection of suitable survey sites determined by:

- geographic distribution of production areas and/or size
- pest management programmes
- cultivars present
- points of consolidation of harvested commodity



## 3. Good Surveillance Practice

- Should be conducted by adequately trained personnel in plant protection and data management
- personnel should be audited in sampling methods, preservation and transportation of samples for identification and record keeping
- appropriate equipment and supplies should be used and properly maintained



## 4. Technical requirements for diagnostic services

- expertise in disciplines relevant to pest identification
- adequate facilities and equipment
- access to specialists for verification
- facilities for record keeping
- facilities for processing and storing voucher specimens
- used of standard operating procedures



## 5. Record keeping

### Information should include:

- Scientific name of pest and Bayer code if available
- Family/order
- Scientific name of host and Bayer code if available and means of collection
- Locality
- Date of collection and name of collector



## 5. Record keeping (cont'd)

### Information should include:

- Date of identification and name of identifier
- Date of verification and name of verifier
- References if any
- Additional information (pest/host relationship, infestation status, etc)



## 6. Transparency

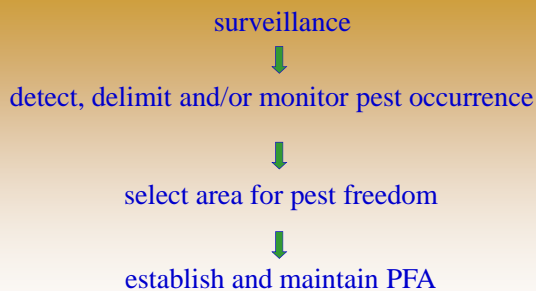
The NPPO should, on request, distribute reports of pest presence, pest distribution or pest absence derived from general surveillance and specific surveys.



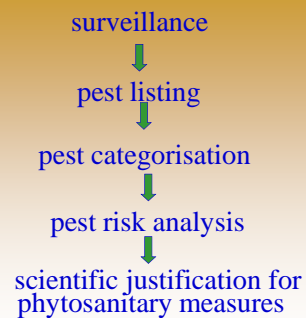
## DOMINO EFFECT: Early detection



## DOMINO EFFECT: pest free areas



## DOMINO EFFECT: PRA



### **Requirements for Implementation of ISPM 6**

- National legislation with provisions for Surveillance
- Administrative provisions
- Qualified surveillance team
- Equipment and tools
- Identification and diagnostic skill
- Procedures and manual for surveillance
- Pest reporting
- Documentation

