


Breakout 1 Group 1: Surveillance system for Development of PFA

Group 1

Breakout 1: Pest Status of SALB



Part 1. General surveillance of SALB in Asian rubber growing region

- Gathering data on SALB
 - CABI
 - IPPC website
 - Website of NPPO of SALB endemic region
 - Other region plant protection commission
 - Scientific reports
 - Research institutions
 - Botanical museum/culture collection centre
 - Gene bank data
 - Other suitable sources

Conclusion on General Surveillance

- SALB not present in Asian rubber growing countries

Specific Survey

- Conduct survey on rubber plantations
- Frequency:
 - i) Once a year for high risk area (e.g. surrounding airport and seaport / entry points) with a 10 km radius
 - ii) once every 2 years for nationwide survey
- Players: NPPO and rubber agency

Plans for specific survey

- Man power
- Finance
- Tools and equipment
- Vehicle
- SALB diagnostic laboratory
- SALB reference key for identification
- Method of survey complies with statistical requirements
- Suitable time and location
- Prepare country reports on status of SALB

Part 2. General surveillance in SALB endemic region

- Gathering data on SALB
 - CABI
 - IPPC website
 - Website of NPPO of SALB endemic region
 - Other region plant protection commission
 - Scientific reports
 - Research institutions
 - Botanical museum/culture collection centre
 - Gene bank data
 - Other suitable sources

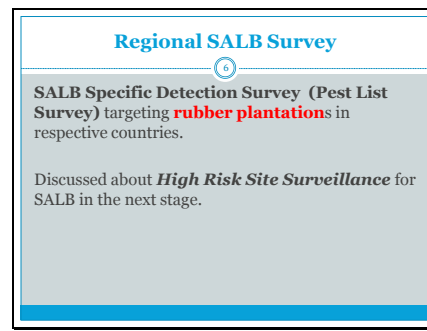
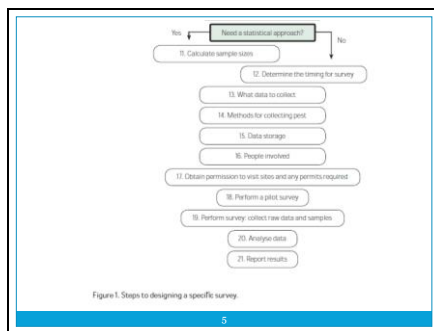
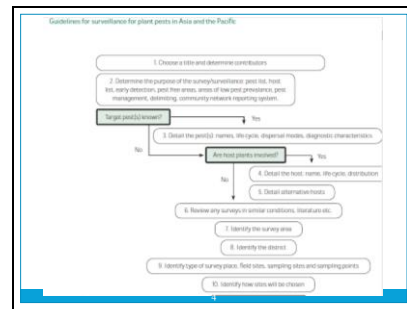
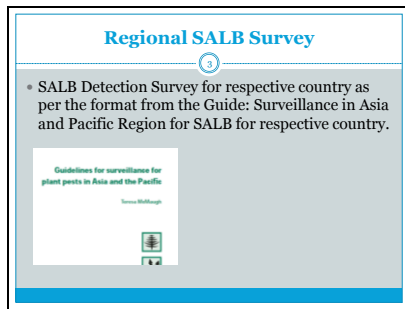
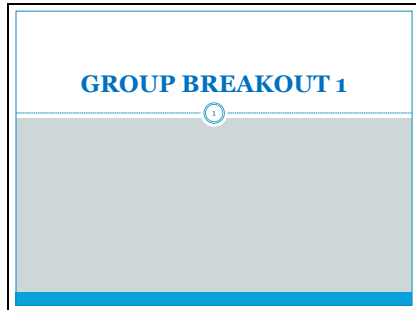
Conclusion on General Surveillance

- SALB is present in many countries in SALB endemic region
- Recommendation:
 - i) to conduct general surveillance in other country in this region
 - ii) General survey on distribution and severity of SALB in individual country
 - iii) Conduct pre-clearance or on-site inspection of commodities from SALB exporting country in endemic region

Specific survey on SALB in endemic region

- can be done with NPPO of export country in SALB region
- conduct survey on rubber plantations
- Frequency:
 - i) Once a year for high risk area (e.g. surrounding airport and seaport / entry points) with a 10 km radius
 - ii) once every 2 years for nationwide survey
- Players: NPPO and rubber agency

Breakout 1 Group 2: Surveillance Planning for PFA



Regional SALB Detection Survey

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- Agreed Criteria for Detection Survey
 - Respective Country to come back with country's SALB detection survey plan by **1 Dec 2016** (*Lead: Singapore*)
 - Duration: **1 year= 2017** (to come back with survey data for compilation)
 - Frequency: **Once every 2 years**

Regional SALB Detection Survey

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- Agreed criteria for detection (pest list) survey
 - Based on 95% Confidence Level & 5% level of detection x Efficacy of Detection (ISPM No. 31 – Table 1)

ISPM 31 Methodologies for sampling of consignments, Appendix 2

Table 1: Table of minimum sample sizes for 95% and 99% confidence levels at varying levels of detection according to lot size, hypergeometric distribution

Quantity of units in lot	95% confidence level					99% confidence level				
	% level of detection x efficacy of detection					% level of detection x efficacy of detection				
	1	2	3	4	5	1	2	3	4	5
25	2	3	4	5	6	2	3	4	5	6
50	3	4	5	6	7	3	4	5	6	7
100	4	5	6	7	8	4	5	6	7	8
200	5	6	7	8	9	5	6	7	8	9
500	7	8	9	10	11	7	8	9	10	11
1000	9	10	11	12	13	9	10	11	12	13
2000	11	12	13	14	15	11	12	13	14	15
5000	15	16	17	18	19	15	16	17	18	19
10000	19	20	21	22	23	19	20	21	22	23
20000	23	24	25	26	27	23	24	25	26	27
50000	29	30	31	32	33	29	30	31	32	33
100000	35	36	37	38	39	35	36	37	38	39

Regional SALB Detection Survey

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- Agreed Criteria for Detection Survey
 - Sampling based on regional standard on SALB
 - **Mature rubber trees** i.e. 5 to 7 years old
 - ***Hevea brasiliensis* – class 1 / group 1 clones.**
 - Sampling to account for **range of climatic conditions** within a country

DIAGNOSTIC CAPABILITY

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DIAGNOSTIC CAPABILITY

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- Tap on 4 trained regional experts – Malaysia (2); Philippine (1) & Indonesia (1) for morphological id.
- Establish Regional lab in Malaysia (MRB)
- Establish & validate molecular test (PCR) for SALB
 - Shared PCR protocol with region for validation
 - With SALB DNA (Brazil, Guatemala, CIRAD)
 - Research on rapid testing for SALB i.e. micro-chip, serology
 - MRB, London, CATAS & CAAS, Beijing
- Training – to request MRB to fund the molecular testing
- Establish linkage with CIRAD Lab (French Agricultural Research Centre for International Development) as reference lab
- Request FAO assisted training on SALB – CIRAD, Guatemala

High Risk Site Survey

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High Risk Site Surveillance

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- Major entry points – Airport, land & sea ports
 - Up to country to decide
- Countries to identify rubber trees near major entry points ie any rubber tree 2 km from major entry point
- Survey plan (HRSS) by **1 Dec 2016** (Lead: Singapore)
- Start 1 Jan – Dec 2017
- *Hevea species*, 5 to 7 years etc (Detection survey)

Harmonized Pest Reporting

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Regional Harmonized Pest Report

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- Simple and harmonized pest reporting format for survey data.

Breakout 2 group 1: Requirements to establish Pest Free Place of Production

**Group Breakout 2:
Discussion on Requirements for
Establishment of Pest Free Area
and Pest Free Production Sites /
Pest Free Place of Production**

**Group 1: Requirements for
Establishment of Pest Free Area
of SALB**

**Requirements for Establishment
of Pest Free Area for SALB**

Area to be determine freedom from SALB:
Asian rubber growing countries

**System to establish pest free area
freedom from SALB**

1. General Surveillance

- ▶ Gathering data on SALB
 - CABI
 - IPPC website
 - Website of NPPO of SALB endemic region
 - Other region plant protection commission
 - Scientific reports
 - Research institutions
 - Botanical museum/culture collection centre
 - Gene bank data
 - Other suitable sources (such as trade journals, unpublished historical data and etc.)

**System to establish pest free area
freedom from SALB -cont.**

2. Specific Survey-detection survey

- ▶ Conduct survey on rubber plantations.
- ▶ Once a year for high risk area (e.g. surrounding airport and seaport / entry points) with a 10 km radius.
- ▶ Once every 2 years for nationwide survey.
- ▶ Players: Collaboration between NPPO and rubber agency.

**Phytosanitary measures to
maintain freedom of SALB in Asian
rubber growing countries**

1. Regulatory actions

- SALB is listed as a quarantine pest for Asian rubber growing countries.
- Each Asian rubber growing country should submit list of plant pests on rubber tree.

**Phytosanitary measures to
maintain freedom of SALB in Asian
rubber growing countries**

- Specification of import requirements into Asian rubber growing countries:
 - i. Pest Free Area of SALB
 - ii. Import Permit
 - iii. Phytosanitary Certificate with Additional Declaration on freedom from SALB
 - iv. Quarantine treatment
 - v. Audit system on PFA in SALB endemic region
 - vi. Intermediate quarantine in non rubber growing countries
 - vii. Post entry quarantine
 - viii. Notification of non-compliance

Phytosanitary measures to maintain freedom of SALB in Asian rubber growing countries

- Restriction of the movement of certain products within areas of a country buffer zones – no restriction of the movement of commodities including rubber planting materials within areas of a country buffer zones.

Phytosanitary measures to maintain freedom of SALB in Asian rubber growing countries

2. Routine monitoring

- Monitoring survey should be combined between NPPO and rubber agency in each country at least once in every 3 months.
- During monitoring survey, if SALB or new plant pest or disease is found, surveyor should collect sample or specimen and send to NPPO and rubber agency laboratory for identification.

Phytosanitary measures to maintain freedom of SALB in Asian rubber growing countries

3. Extension advice to producers

- NPPO and rubber agency should provide brochure to producers on how to recognize the symptom of SALB.
- In case of SALB is found, NPPO and rubber agency should take emergency action plan.
- In case of SALB is found, NPPO and rubber agency should provide guidance to producers the measures on how to eradicate SALB in their rubber plantation.

Thank You

Breakout 2 Group 2: Requirement of Pest Free Place of production

GROUP BREAKOUT 2

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Group 2

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**REQUIREMENTS OF
PEST FREE PLACE OF
PRODUCTION**



Establishment of Pest Free
Place of Production

③

SALB

1. Systems to **establish** pest freedom

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- Exporting NPPO to define PFPP including buffer zone
 - PFPP = Rubber Plantation -> Production region
- Official survey of pest in PFPP in defined time period covering annual refoliation i.e new flushes.
- Defined pest status of PFPP – SALB pest free
- Delimiting survey around PFPP to determine extend of pest freedom
- PFPP to apply system approach on plantation to ensure quality i.e management system & traceability.
- 2km buffer zone without any rubber trees
- Inspection by plant pathologist – SALB specialist.
- Inspection should conducted 2 months after new flushes i.e optimal for disease expression.

2. Systems to **maintain** pest freedom

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- Regular internal auditing of critical control points in PFPP
- SALB free propagating materials (seeds)
- Regular application of fungicides on site.
- Spore traps in PFPP
- Dedicated machinery (lorries, tractors) within PFPP
 - Thoroughly washed & cleaned down with pressure cleaner prior to leaving the PFPP.
- Biosecurity system on PFPP
- Rubber logs free from leaves & treated with fungicide
- Emergency response plan for SALB incursion

2. Systems to **maintain** pest freedom

⑥

- Post entry quarantine (PEQ) of bud wood of new clones under clone exchange programme for at least 1 yr before introduction into PFPP.
- Prior to release from PEQ, bud woods to be inspected by qualified plant pathologist for signs of SALB infection.
- PFPP to maintain clear records of source of planting materials and certification record from plant breeders.

3. Verification of Pest Freedom

- PFPP survey & delimiting survey reports
- Growing period inspection
- Sampling & testing of products from PFPP

4. Document and Review

- Check survey reports
- Audit report of critical control points in PFPP
- Treatment records

Establishment & Maintenance of Buffer Zone

- 2km Buffer zone
- Remove all rubber trees within buffer zone
- Scheduled monitoring of buffer zone ie frequency.
- NPPO (export country) to declare area as buffer zone.
-

Pest Reporting

- NPPO should collect the information regularly.
- PFPP to report on schedule of pest monitoring, list of pests detected & details of treatment.

Breakout 3 Group 1: Information to be provided for PFA recognition

List of Information to be provided to Importing Countries with regard to PFA Recognition

By:
Group 1

List of information to be provided to importing countries

- › List of commodities to be exported
 - Hevea (e.g. rubber wood)
 - Non-Hevea (e.g. fresh fruits, cut flowers)
- › List of Hevea and non-Hevea pests in exporting countries
- › Updated information of geographical distribution and severity of SALB in endemic region

Cont-

- › System and record of detection survey and monitoring of SALB for the last 3 years
- › Production area of commodities to be exported (location and distance from SALB area)
- › Climate condition in production area
- › Management strategies to maintain the pest free area from SALB

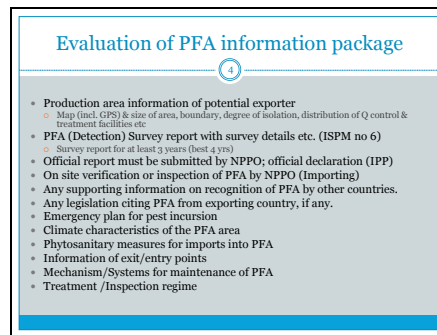
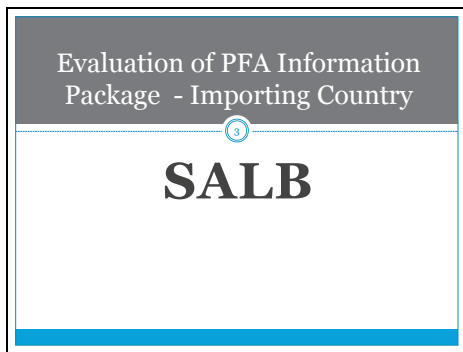
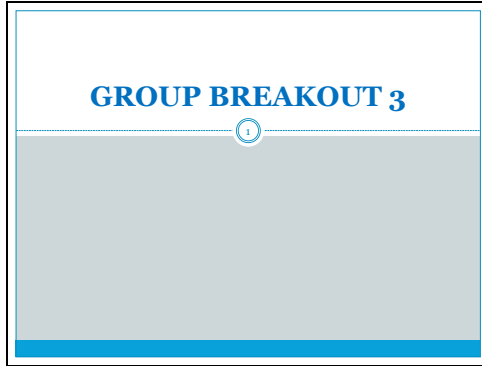
Cont-

- › Map of commodities production area
- › Quarantine system (legislation, sampling, inspection, treatment, certification and NPPO contact person)
- › List of port for exported commodities Map of quarantine services location

Cont-

- › List of specimen signatures of authorized persons to sign PC
- › Traceability procedure
- › Document of recognition of PFA of SALB by other countries, if available.

Break out 3 Group 2: Information for recognition of PFA



Breakout 4 Group 1: SOP for establishment of PFA

SOP for Establishment of PFA

Group 1

Responsibility

1. Legal Responsibility

- Legislation
- IPPC Context (not legally binding)

2. Management Responsibility

- The management responsibility of establishment and maintenance of PFA relies on the NPPPO of the exporting country
 - NPPPO to ensure the availability of trained personnel

Responsibility

General Surveillance

- Information collection
- Information verification
- Reporting of results

Specific Survey Plans

- Establish contact and cooperation with the local NPPPO
- Information gathering on possible PFAs
- Verification of the PFA
- Establish SOP for the survey
 - Manpower
 - Infrastructure (Diagnostic laboratory)
 - Reference specimens
 - Literatures/ references
 - Tools and equipment
 - Expertise or SALB trained personnel

Specific Survey Plans (Cont...)

Survey methodology:

- Establish location, period and duration of survey
- Identify production units
- Secure permission to enter the survey location
- Establish survey methodology (sampling size, visual recognition, spore trapping for the establishment of buffer zone)
- Record keeping

Specific Survey Plans (Cont...)

- Conduct survey:
- Frequency:
 - i. Once a year for high risk area (e.g. surrounding airport and seaport / entry points) with a 10 km radius
 - ii. Once every 2 years for nationwide survey
- Collaboration between NPPPO and rubber agency of the exporting and importing country
- Delimitation of the PFA from the survey result

Specific Survey Plans

Establish the **Emergency Action Plan** in the event of SALB detection in the PFA

Funding

Secure sufficient funding for:

- Operation and maintenance funds
- Staff training
- Infrastructure (laboratory facility)
- Materials for diagnostics
- Purchase of new equipment (GPS and GIS)
- Traveling expenses for surveillance team
- Transportation (vehicle)
- Consultant
- Meetings, discussions, negotiation

Information Management

- Constant updating and maintenance to ensure PFA status
- Public awareness
 - Media (newspapers, TV and radio, social media, seminar) for the general public and stakeholders
- Documentation and record keeping
 - Establish a database including in "cloud"

Reporting System

- NPPO of exporting country to report on PFA to their higher authorities
- Reporting of PFA declaration of the exporting country to Regional Plant Protection Organizations , IPPC and NPPO of importing country
- Request for recognition from trading partners on PFA declaration

Breakout 4 Group 2: SOP for maintenance of PFA

GROUP BREAKOUT 4

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Group 2

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SOP FOR MAINTENANCE OF PEST FREE AREA

Reference:
 1. India's SOP for Export Inspection & Phytosanitary Certification of Vegetables & Fruits to the EU. (Mar 2015)
 2. Indonesia's SOP for Import of Soybean & Corn from Brazil to Indonesia (2014)



SALB

SOP for Maintenance of PFA

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Table of content

1. Responsibility of stakeholders – level of stakeholders
2. Regulation of country
3. Specific plan (operationalization in the country – agencies/ committees)
4. Funding
5. Infrastructure
6. Staff
7. Information Management – Management, storage of survey data etc.
8. Reporting System – how to gather information from lowest level – farmers to the NPPO for official reporting between countries

SOP for Maintenance of PFA

1. Responsibility of Stakeholders.

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Identified Stakeholders

1. Growers
2. Processing/ Packing Facilities
3. Treatment Providers
4. NPPO (exporting country)
5. Exporters
6. Forwarding agents

SOP for Maintenance of PFA

1. Responsibility of Stakeholders.

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1.1. Responsibility of Grower

- To establish and maintain SALB Pest Free Area
 - Refer to previous Group presentations.
- To maintain the required phytosanitary measures on farm i.e. PEQ etc.
- To develop & maintain biosecurity system for the production of ~~rubber trees~~ (commodities) at farm level i.e. ~~free from SALB~~
- To maintain proper documentation of biosecurity system
- To maintain proper transportation system
- To request NPPO for registration of the farm intending export
- To maintain status of pests and diseases in the registered farms on a regular basis along with the record of the control measures/plant protection measures undertaken during the crop season.
- To maintain record of rubber trees in the registered farm on the management practices from sowing to harvesting.
- To follow the advice from NPPO on pest management practices, waiting period for pesticides.

SOP for Maintenance of PFA

1. Responsibility of Stakeholders.

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1.2. Responsibility of Approved Processing /Packing Facilities

- To accept produce only from registered farms for processing
- To maintain record for each inbound consignment with the quantity, received name of the farmer and registration number of the farm
- To use non-rubber WPM or plastic WPM.
- To establish and maintain a labelling system to enable identification at all times of materials meeting the pest free area requirements of the importing country; produce produced in PFA intended for export to other markets that do not meet these requirements and produce produced from outside PFA i.e. unique sticker identifying approved pack house.

1.3. Responsibility of Treatment Providers

- To apply to NPPO for accreditation/renewal of treatment facility
- To process produce only from registered farms
- To treat produce as per SOP brought out by the NPPO
- To maintain the records pertaining to each treatment with the temperature log, name of the exporter, quantity treated etc.
- To issue a treatment certificate to the exporter.

SOP for Maintenance of PFA

1. Responsibility of Stakeholders.

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1.4. Responsibility of NPPO

- To conduct periodical audit of the registered farms
- To verify that the vegetables & fruits processed in approved pack houses are procured from registered farms.
- To communicate the non-compliances received to the concerned stakeholders for necessary action.
- To accredit/renew the treatment facilities to be used for export of fresh fruits & vegetables to wherever applicable.
- To advise the farmers for SALB at field level.
- To standardize the quarantine treatment protocols, wherever required.

SOP for Maintenance of PFA

1. Responsibility of Stakeholders.

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1.5. Responsibility of Exporters

- To request NPPO for registration of a farm
- To provide information to NPPO about the farms to be registered, crops grown, area/location of the farm and tentative production during the crop season.
- To procure the fresh fruits & vegetables from the registered farmers only.
- To provide information related to each consignment with registered farm no to the pack house.
- To ensure safe transport of the produce from the farm to the pack house without mixing with produce of unregistered farms.

1.6. Responsibility of Forwarding Agents

- To be well aware of the import requirements/regulations.
- To request for NPPO to register forwarding agents (?)

SOP for Maintenance of PFA

2. Regulation of Country

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- The country must have legal mandate and administrative authority on control and issuance of PC issued, for its actions and implement safeguards against conflicts of interest and fraudulent use/issue of certificates.
- The country must have statutory power to prevent export of consignments which do not meet the PS requirements.
- The country must be able to take appropriate actions on receipt of communication of non-compliances to fulfill the international obligations under the IPPC & WTO-SPS.
- The country must have the legal powers to register & manage the various identified stakeholders.

SOP for Maintenance of PFA

3. Specific Plan (Operationalization in country)

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3.1 Procedures on Farms

3.1.1 Quality Management System

- The farm/farmer should establish a **documented quality management system** including annual internal checks, communication, training etc to ensure traceability of safe quality of produces produced from within a PFA covering raw materials, production, harvesting and processing to delivery of final produces i.e critical control points to mitigate risk of pest introduction.
- The registration of farms within PFA should comprise of this documented quality management system that should be auditable with procedures in place to address non-compliances etc.
- NPPO should establish a regular & transparent system of auditing these registered farms to ensure PFA is established and maintained.
- NPPO should implement a system to remove farms not meeting the established requirements of a farm within a PFA & to notify trading partners accordingly.

SOP for Maintenance of PFA

3. Specific Plan (Operationalization in country)

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3.1 Procedures on Farms

3.1.2 Phytosanitary Control of Exports in Farms

- NPPO should ensure that appropriate phytosanitary control measures are in place on farms to protect the export from farms.

3.1.3 Good Agricultural Practice on Production

- Farm must implement Good Agricultural Practices on production.

3.1.4 Pest Management System

- Farm must have IPM and conduct regular survey on SALB.

3.1.5 Verification of Compliance

- NPPO should verify the compliance of producers to the stipulated requirements with annual audit.
- NPPO

SOP for Maintenance of PFA

3. Specific Plan (Operationalization in country)

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3.2 Procedures in Processing/Packaging Facilities

- Approved Processing/Packaging facilities shall be situated within the PFA.
- They shall establish a documented traceable management system in compliance with the stipulated SOP/guidelines by NPPO for recognition as registered premises within PFA.
- NPPO should inspect the registered premises on a defined regular basis i.e at least once a year to verify continued compliance with the stipulated requirements.
- NPPO should provide an updated list of registered premises to the NPPO of importing country.
- Equipment should be appropriately treated i.e. 2% sodium hypochlorite, heat treatment 75°C for 30 min.
- Storage of final produces should be fitted with a high pressure air blower &/or drying facilities i.e heat treatment in accordance to stipulated specifications i.e 75°C for 30 min.

3.3 Procedures in Treatment Providers

- TPs should establish a documented traceable management system in compliance with the stipulated SOP/guidelines by NPPO for recognition as registered TPs.
- They should maintain proper treatment records for traceability.

SOP for Maintenance of PFA
4. Funding

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- NPPOs of Exporting & Importing Country & relevant Stakeholders, where applicable.

SOP for Maintenance of PFA
5. Infrastructure

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- Infrastructures should be approved by NPPO (exporting country) before use.
- 5.1 National Diagnostic Laboratory
- An appropriately adequate National Diagnostic Laboratory should be available
 - to provide the required diagnostic identification for PFA in the country of export.
- 5.2 Standardized Biosecure Infrastructure for place of productions/processing/ packaging facilities within PFA
- Same defined mesh size of netting to keep out insects.
 - Double door entry & exit
 - Proper segregation of various processes on farm.
 - Proper storage, treatment & disposal facilities
 - Equipment and transport equipment used should be properly cleaned when moving between areas.
 - Critical control points risk assessment and mitigation measures for processes i.e. transportation etc
 - Control movement of people, animals, vehicles etc in & out of PFA.

SOP for Maintenance of PFA
6. Staff

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- All approved/registered facilities including NPPO should have adequately trained and skilled manpower to perform the required work within PFA.
- Proper training records should be maintained for audit.
- There should be proper structured training & competency assessment for staff to carry out their responsibilities.

SOP for Maintenance of PFA
7. Information Management (Type, Mgt & Storage)

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Type	Management	Storage
Production records		
Treatment records		
Pest records		
Non-compliances		
Corrective actions		
Training record	Hardcopy/softcopy Traceable	Defined time frame i.e storage of 5- 7 years
QM related records		
Survey records		
Pest management		
Competency records		
Disposal records		
Movement records		

SOP for Maintenance of PFA
8. Reporting System

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- Reporting System – how to gather information from lowest level – farmers to the NPPO for official reporting between countries
- Quarterly submission of pest data from farms to NPPO
- Bimonthly inspection of approved premises by NPPO of exporting country
- NPPO to provide half yearly official status update of PFA
- Regular interception notifications from NPPO of importing country to NPPO of exporting country based on ISPM No. 13.