

SALB PRA and Standard Effect on Agriculture Trade Procedure from South American SALB Infested Countries

Surapol Yinasawapun
Department of Agriculture
Bangkok Thailand

12 January 2015

Topic

- I. Summary PRA for SALB of rubber**

- II. Effect on agriculture trade procedure from South American SALB infested countries**

Summary PRA for SALB of rubber

1. INTRODUCTION

PRA for SALB of rubber was prepared by rubber growing member countries of APPPC : Thailand, Indonesia, Malaysia, India, China, Viet Nam, Sri Lanka

This PRA is expected to provide scientific justification for standards developed by APPPC and member countries to manage trade-related phytosanitary risks of SALB

1. INTRODUCTION

Purpose of this PRA
to evaluate:

- i. risks of SALB being associated with commodities/pathways from SALB endemic countries
- ii. risks of introduction and spread of SALB
- iii. economic consequences from establishment of SALB
- iv. management options to mitigate risks

2. INITIATION

SALB of rubber is endemic in South America
high risk quarantine pest in PRA area
90 % of world's rubber is grown

Following decisions at 21st session of APPPC (1999)
PRA on SALB has been initiated
to develop appropriate standards
to manage phytosanitary risks of SALB to APPPC region

3. RISK ASSESSMENT

Summary of risk assessment

Vector	Probability of entry	Probability of establishment	Probability of spread	Likely impact	Level of risk
Host material (<i>Hevea</i> species)					
Budded stumps or budwood	High	High	High	High	High
Foliage (stem and leaf material not for planting)	Low	High	High	High	Moderate
Flowers, fruit and seeds	Low	High	High	High	Low
Plants <i>in-vitro</i>	Negligible	N/A	N/A	N/A	Negligible
Non-host material					
Inanimate goods or non-host organic material	Negligible	N/A	N/A	N/A	Negligible
Inanimate goods or non-host organic material contaminated by host plant material	Low (if <1 cm ²)	High	High	High	Low (if <1 cm ²)

4. RISK MANAGEMENT

Viabale or non-viable SALB host material
can either be imported from areas
considered free of SALB

or

meet the following phytosanitary requirements:

Budded stumps or budwood

a. Pre-export inspection and treatment

- **Mother plants** must be inspected and certified to be free of SALB infection
Inspections should be immediately before harvest budded stumps or budwood during a period optimal for disease expression
- Harvesting of **budded stumps and budwood** only when bark has been hardened (brown in colour) and during low-disease season (e.g. dry weather)
Budded stumps and budwood should be < 1 metre when exported
- Budded stumps and budwood should be packaged in a manner limits likelihood of infestation during transport
- Budded stumps and budwood should be dipped in appropriate surface sterilant and systemic fungicide effective against *M. ulei*
- Budded stumps must be free of soil

b. Measures on arrival (in an appropriately secure facility)

- _ Budded stumps and budwood should be dipped in appropriate surface sterilant and systemic fungicide effective against *M. ulei*
- _ All packaging material should be destroyed or appropriately sterilized, budded stumps and budwood repackaged after treatment

c. Post entry quarantine

- _ Imported budded stumps and budwood should be grown in a suitable post entry quarantine facility for at least one year or after new foliage has been produced at least six times
- _ Plants should be inspected for signs of SALB daily by suitable trained facility staff and fortnightly by suitably qualified plant pathologists

c. Post entry quarantine

- _ plants showing signs of SALB should be destroyed and all other *Hevea* plants within the facility should be treated with suitable fungicide (treatment may require six or more applications)
- _ Prior to release all plants in the facility should be inspected by a suitable qualified plant pathologist for signs of SALB infection
- _ Plants may be released from the post entry quarantine facility only after having all plants in the facility have been free from any signs of SALB for at least one year or after new foliage has been produced at least six times

d. Intermediate quarantine

Intermediate quarantine offers a further option to mitigate risk

Plants *in vitro*

should be held in culture
free of any type of contamination
for at least three months prior to
being released into the PRA area

Seeds, flowers and fruit

Flowers and fruits

should be washed with a surface sterilant such as 200 ppm of sodium hypochlorite

Seeds

only healthy seeds should be selected
washed with water and
soaked in formalin (5%) for 15 minutes
air dried and dressed with
thiophanate methyl, benomyl or mancozeb

Foliage

-prohibited

Non-viable host material on the cargo pathway

Cargo from SALB areas should be screened for goods or shipments that are likely to contain or be contaminated by non-viable host material

Cargo such as used machinery (cars, logging equipment, chainsaws, etc.) may have been used in rubber plantations should be thoroughly steam cleaned of all organic material larger than 1 cm², and dismantled if there are parts that can not be easily cleaned

Any organic material that is thought to be from a susceptible *Hevea* species, is larger than 1 cm², and can not be removed from the goods or can not be destroyed (e.g. herbarium material) should be heat treated for a minimum of 30 continuous minutes at 56°C or greater. Measures may include cleaning, disinfection or destruction

Non-viable host material on the passenger pathway

Passengers and accompanied luggage

arriving within 21 days from SALB

should be inspected for both viable and non-viable host material

Special care with such items

camping equipment and hiking boots, farm equipment,
and decorative plant material

as these are more likely to contain or be contaminated
by non-viable host material greater than 1 cm²

Residual risk after management

establishing an effective monitoring system
expected to detect establishment event
early enough to allow
an effective eradication programme

II. Effect on agriculture trade procedure from South American SALB infested countries

Commodity

-Plant Host/non-host of *M. ulei*

(e.g. fresh fruit, tuber)

-Non-plant

(e.g. used machinery, equipment)

Mean of Conveyance/Transportation

-Domestic transportation

(if via SALB infested area?)

-International transportation

(sea/air cargo?)

Production Areas

- NPPO export country-approved system
- NPPO importing country has approved prior to export

Quarantine Pests of Concerns

Microcyclus ulei

Other quarantine pests

Requirements for Production Site

- commodity production certification schemes
- providing information on management programmed undertaken for commodity throughout growing season

Packinghouse or Export Establishment

- registered and approved by NPPO

 - Post-harvest management

- inspected by quarantine officials for compliance with specified conditions
details in specified conditions?

Requirements for Quarantine Treatment

Pre-shipment disinfestation treatment

In-transit disinfestation treatment

Requirements for Packing and Labeling

Export Inspection

Phytosanitary Certification

-with additional declarations

Import Inspection

-re-packing

Audit of Export Procedures (if required)

-First shipment export after already audit
export certification procedures

Thank you