



# **INDONESIA**

## **Country Presentation**

**WORKSHOP ON BIOSECURITY IMPLEMENTATION OF  
SOUTH AMERICAN LEAF BLIGHT OF RUBBER IN THE  
ASIA-PACIFIC REGION  
BANGKOK THAILAND, 12-16 JANUARY 2015**



# Introduction

- Rubber status – acreages and distribution
- Rubber production and future planting
- Impact on rubber if SALB incursion – population involved and yield reduction
- Biosecurity strategy to curb the SALB incursion

# Rubber Status, Year 2012\*

CATEGORY	PLANTATION/ESTATE			
	SMALL HOLDERS	GOVERNMENT	PRIVATE	TOTAL
Planted area (ha)	2,959,000 (85%)	258,000 (7,4%)	267,000 (7,6%)	3,484,000 (100%)
Production (ton)	2,361,000 (77,7%)	326,000 (10,7%)	354,000 (11,6%)	3,040,000 (100%)

\*Data from Rubber Association of Indonesia and Directorate General of Estate Crops, Ministry of Agriculture, 2013

# DISTRIBUTION OF RUBBER PLANTATION

(Indonesia Investment Coordinating Board, 2013)



# RUBBER PRODUCTION & FUTURE PLANTING

## Rubber Plantation, Year 2008 – 2013 (in thousand hectares)<sup>1)</sup>

OWNER	2008	2009	2010	2011	2012*	2013**
Small holders	2,910	2,912	2,922	2,932	2,959	2,963
Government	238	239	239	257	258	259
Private	276	284	284	267	267	269
<b>Total</b>	<b>3,424</b>	<b>3,435</b>	<b>3,445</b>	<b>3,456</b>	<b>3,484</b>	<b>3,492</b>

\* Preliminary; \*\* Estimation

<sup>1)</sup> Data from Rubber Association of Indonesia and Directorate General of Estate Crops, Ministry of Agriculture, 2013

# RUBBER PRODUCTION & FUTURE PLANTING

## Natural Rubber Production, Year 2008 – 2013 (in thousand tons)<sup>1)</sup>

PRODUCER	2008	2009	2010	2011	2012*	2013**
SMALL HOLDERS	2,174	1,942	2,179	2,360	2,361	2,471
GOVERNMENT ESTATE	277	239	266	302	326	340
PRIVATE ESTATE	301	259	289	328	354	370
TOTAL PRODUCTION	2,751	2,440	2,735	3,990	3,040	3,180

\* Preliminary; \*\* Estimation

<sup>1)</sup> Data from Rubber Association of Indonesia and Directorate General of Estate Crops, Ministry of Agriculture, 2013

# Impact on rubber if SALB incursion

## Farmers involved in Rubber Plantation, Year 2009 – 2014<sup>1)</sup>

PRODUCER	2009	2010	2011	2012	2013*	2014**
SMALL HOLDERS	2,077,450	2,093,803	2,110,603	2,142,317	2,180,685	2,214,097
GOVERNMENT ESTATE	91,276	91,269	91,550	92,510	93,220	94,138
PRIVATE ESTATE	108,016	108,058	108,016	104,299	107,857	108,066
TOTAL FARMERS (head of a family)	2,276,742	2,293,130	2,310,169	2,339,125	2,381,763	2,416,301
Total population (A family with 2 kids)	9,106,968	9,172,520	9,240,676	9,356,500	9,527,052	9,665,204

\* Preliminary; \*\* Estimation

<sup>1)</sup> Data from Directorate General of Estate Crops, Ministry of Agriculture, 2014

# Impact on rubber if SALB incursion

- **Population involved:**

- Estimation in 2014, almost 10 million people will directly be influenced by SALB
- Shortages of raw materials on rubber based industries

- **Yield reduction:**

Reduce latex production until 70%



# Biosecurity strategy to curb the SALB incursion

- **Applied cultural, mechanical, chemical techniques and their combination:**
  - using resistant clones,
  - planting in escape areas,
  - crown budding technique,
  - fungicides,
  - integrated control (fungicide with biological agents or tolerant clones), etc.
- **Implement quarantine laws and regulations:**
  - implement strict import requirements from SALB endemic countries,
  - strengthening quarantine inspections at point of entry for goods coming or transit from SALB endemic countries (detection and identification SALB),
  - treatments (UV, HT, disinfectant, etc.),
  - surveillance, etc.

# Existing Steps to prevent entry of SALB

- Laws and Regulations
- PRA, Import requirements and pest management
- Inspection at entry, sampling method and size
- Surveillance system
- Diagnostic for SALB
- Control preparedness
- Awareness and Capacity Building

# Laws and Regulations

- a. **Law No. 16 of 1992** concerning Animal, Fish, and Plant Quarantine
- b. **Government Regulation No. 14 of 2002** concerning Plant Quarantine  
    **“General Import Requirements”**

The importation of plant and its part thereof and/or other articles which may carry plant quarantine pests into the territory of the Republic of Indonesia, shall be:

1. Accompanied by a Phytosanitary Certificate (PC) from the country of origin and transit country;
2. Through the designated port of entry;
3. Notified and presented to Plant Quarantine Inspector at the port of entry for necessary plant quarantine measure

## c. MoA Decree No. 861/1989 concerning The Prevention for the Introduction of SALB into the Territory of Republic Indonesia

### “Specific import requirements”

#### 1. Prohibition:

Importation of propagating materials of Hevea from SALB endemic countries essentially is **prohibited**.

#### 2. Restriction and treatment:

Importation of propagating materials of Hevea from SALB endemic countries will only be allowed with some requirements:

- only for government research purposes
- must have import permit from the Minister of Agriculture;
- must be treated in the country of origin
- must be free from soil
- accompanied by PC from the country of origin or transit country

## **(i) Propagating materials of Hevea in form of seedlings:**

- must be through intermediate quarantine in the third country (outside Asia Pacific region)
- accompanied by health certificate from plant pathologist which states that the seedlings are free from SALB
- shall undergo post entry quarantine on arrival in Indonesia

## **(ii) Propagating materials of Hevea in form of seeds:**

- must be re-treated in the third country
- packing and containers should be replace with new ones in the third country
- accompanied by health certificate from plant pathologist in third country which states that those treatment have been done and seeds are free from SALB
- re-treated on arrival in Indonesia and shall undergo post entry quarantine.



**(iii) For propagating materials of non-Hevea:**

- only for government research purposes
- must have import permit from the Minister of Agriculture;
- must be treated in the country of origin
- must be free from soil
- accompanied by a PC from the country of origin or transit country
- shall undergo post entry quarantine upon arrival in Indonesia

**(iv) For products of Hevea:**

- importation only for government research purposes
- importation must have import permit from the Minister of Agriculture;
- must be treated in the country of origin

**(v) For products of non-Hevea, passenger luggage, etc.:**

- must be treated at the point of entry in Indonesia

# TREATMENTS FOR SALB

Any importation of non propagating plant material of non-Hevea from the endemic countries must treated at the port of entry:

## **a. Seeds or seedling, fresh plant products**

- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>, or
- Hot air treatment at temperature of 56 °C or more for at least 30 minutes, or
- Soaking in a solution of sodium hypochlorite (disinfectant) at a concentration of 200 ppm or more, followed by drying.

## **b. Dried plant products**

- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>, or
- Hot air treatment at temperature of 56 °C or more for 30 minutes

### **c. Wood or timber products:**

- Steam heat treatment at temperature of 56 °C or more for at least 30 minutes , or
- Hot air treatment at temperature of 75 °C or more for at least 30 minutes

### **d. Grains**

- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>, or
- Hot air treatment at temperature of 56 °C or more for 30 minutes

### **e. Fibre Products**

- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>, or
- Steam heat treatment at 56 °C or more for 30 minutes, or
- Hot air treatment at temperature of 56 °C or more for 30 minutes

### **f. Vehicles and Containers**

- Washed with detergent and sprayed with pressurized water
- spraying with sodium hypochlorite 200 ppm or more

### **g. Passenger luggage**

- Suitcases, shoes or footwear, and other hand carried luggage (spraying with sodium hypochlorite 200 ppm or more), or
- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>

### **h. Equipments**

- Spraying disinfectants (sodium hypochlorite) 200 ppm or more, or
- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>
- For equipments made of metal, wash with detergent and sprayed with pressurized water.

### **i. Packing Materials**

- Spraying with disinfectants (sodium hypochlorite) 200 ppm or more, or
- UV Irradiation using ultraviolet light (253-257) nm for 60 minutes, with a specification 1 lamp of 40 Watt UV lamp for a volume of 1.5 m<sup>3</sup>

# Inspection at entry ports

- Sampling (based on IAQA manuals)
- Detection and Identification:
  1. visual observation
  2. mycological analysis
  3. serological (ELISA) and molecular diagnostic (PCR)

## Control preparedness at entry ports

1. UV irradiation treatment
2. X-ray treatment
3. Disinfectant, Detergent, Formalin treatment
4. Hot air and steam heat treatment



# Surveillance system

1. A detection survey initiated following the increasing of importation of agricultural products from SALB endemic countries to determine if SALB occurs for the first time;
2. The survey conducted within 3 km around the port of entry;
3. The survey commenced one month after arrival of imported plants and shall be continued for one year;
4. Survey targeted onto young leaves of *Hevea* spp. plants;
5. All plants in the nursery shall be inspected fortnightly. For mature rubber, monitoring should be done fortnightly during the leaf change period (wintering) and monthly during normal growth period;

# AWARENESS AND CAPACITY BUILDING

- IAQA\_SALB workshop for quarantine officers on 16 – 21 September 2013
- Theme: Dissemination of SALB disease in rubber
- Resource persons : Indonesia Agriculture Quarantine Agency (IAQA) and Dr. Ismail Hashim (Malaysia)
- Training subjects using SALB module (delivered in English and Bahasa):
  1. How to Create a Public Awareness Program on SALB
  2. The quarantine development history againsts SALB
  3. Contingency plan: detection surveys & eradication procedures
  4. Pest Risk Analysis of *Microcyclus ulei* and its import requirement of plant products from SALB countries
- Products: Q-leaflet, Q-banner, Q-pamphlet (in Bahasa)

# Planning on SALB pest freedom Area

- **Border control – diagnostic**

Improve technical skills (in detection and identification SALB) of quarantine officers in quarantine services

- **Surveillance – maintaining pest freedom**

Conduct national surveillance (NPPO) for SALB detection in areas of entry points of goods which coming or transit from SALB endemic countries and rubber plantation areas

- **Surveillance data management and sharing**

Quarantine surveillance data managed by IAQA and delivered on the IAQA National Seminar of Surveillance which is held every year, or shared out on NPPO meetings or on Plant Protection Commission meetings

- **Pest reporting**

NPPO members and other related institution which conduct pests survey (universities, research institutions) shall report to IAQA as Focal Point NPPO for the purpose of verify

# Sharing of Information

- **Type of sharing**

Direct communications in workshops, seminars, meetings, or indirect communications through formal letters, leaflets, and multimedia

- **Scope of data that can be shared**

Pests occurrence, outbreak, or spread and its location that are known on the basis of observation and surveys, and actions for verifying or control or eradication

- **Obligation in reporting**

NPPOs or other related institution which conduct pests survey (universities, research institutions) shall report to IAQA the occurrence, outbreak and spread of pests (SALB) that may be of immediate or potential danger.



A photograph of a path lined with tall, slender trees, creating a canopy overhead. The path is covered in grass and fallen leaves, leading towards a bright light at the end. The text "Thank you" is overlaid in a yellow, cursive font.

*Thank you*