

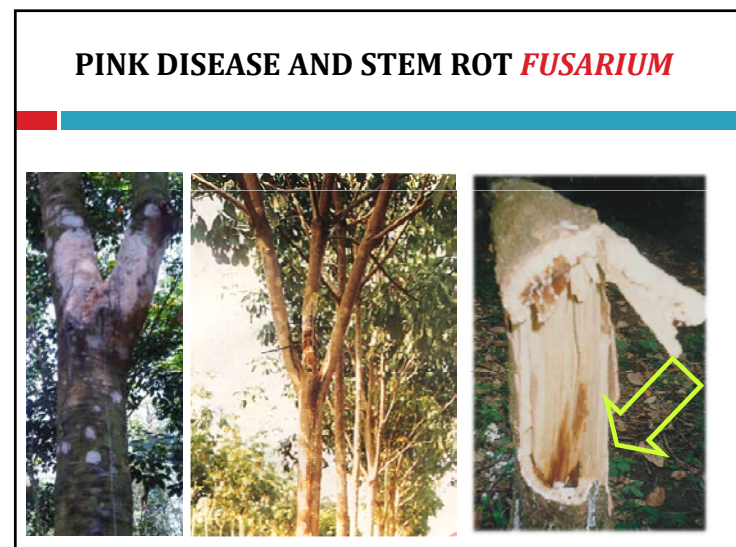
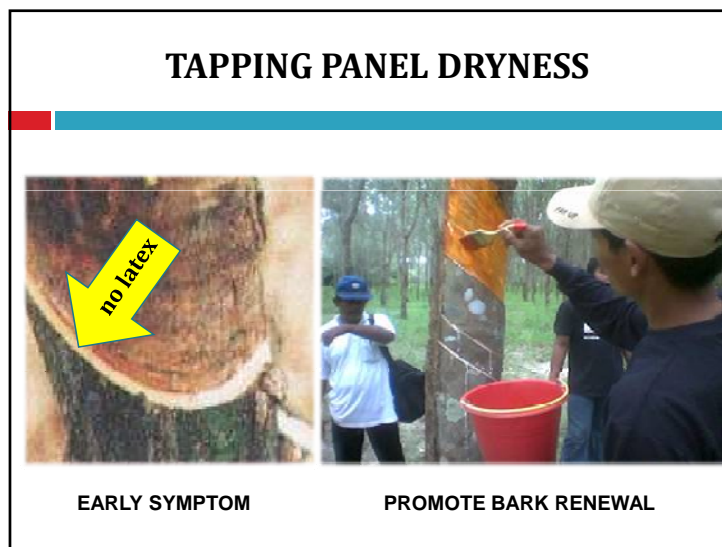
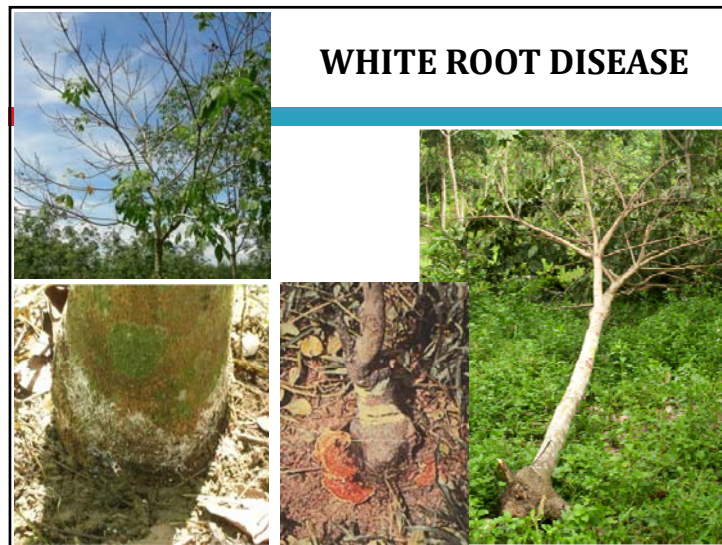


NATURAL RUBBER OF INDONESIA, 2010			
	Estates	Smallholdings *)	Total
Planted area (ha)	509,000 (15%)	2,936,000 (85%)	3,445,000 (100%)
Production (tons)	559,900 (24%)	1,792,100 (76%)	2,352,000 (100%)

\*) About 60% adopted high-yielding clone  
600,000 ha under immature period



IMPORTANT RUBBER DISEASES	
NO	DISEASES (PATHOGEN)
1.	White root ( <i>Rigidoporus microporus</i> )
2.	Tapping panel dryness (physiology disorder)
3.	Corynespora leaf fall ( <i>Corynespora asiicola</i> )
4.	Colletotrichum leaf fall ( <i>Colletotrichum gloeosporioides</i> )
5.	Pink disease ( <i>Corticium salmonicolor</i> )
6.	Stem/branch necrotic ( <i>Fusarium sp</i> )
7.	Mouldy rot ( <i>Ceratocystis fimbriata</i> )





## MOULDYROT



## NATURAL RUBBER OF INDONESIA, 2010

	ESTATES	SMALLHOLDINGS *)	TOTAL
Planted area (ha)	509,000 (15%)	2,936,000 (85%)	3,445,000 (100%)
Production (tons)	559,900 (24%)	1,792,100 (76%)	2,352,000 (100%)

\*) Only 60% adopted high-yielding plant material  
About 600,000 ha under unproductive conditions

## IMPORTANT RUBBER DISEASES

NO	DISEASES (PATHOGEN)
1.	White root ( <i>Rigidoporus microporus</i> )
2.	Tapping panel dryness (physiology disorder)
3.	<b>Corynespora leaf fall (<i>Corynespora casiicola</i>)</b>
4.	<b>Colletotrichum leaf fall (<i>Colletotrichum gloeosporioides</i>)</b>
5.	Pink disease ( <i>Corticium salmonicolor</i> )
6.	Stem/branch necrotic ( <i>Fusarium</i> sp.)
7.	Mouldy rot ( <i>Ceratocystis fimbriata</i> )

## Available Expertise on South American Leaf Blight Disease

Particular	Name	Organization
Trained personal on SALB:	Dr. Darmono	Indonesian Rubber Research Institute
Personal exposed to SALB:	Ms. Ummu S. Rustiani	Indonesia Agricultural Quarantine Agency
	1. Dr. Heru Suryaningtyas 2. Mr. Irwan Suhendry	Indonesian Rubber Research Institute
Personal who attended workshop on SALB:	1. Dr. Eliza S. Rusli 2. Mr. Budiman 3. Ms. Aprida Cristin	Indonesia Agricultural Quarantine Agency
	Mr. Nurnowo Paridjo	Indonesian Estate Plant Protection
	Dr. Karyudi	Indonesian Rubber Research Institute

## Diagnostic Facilities Expertise

Laboratory	Containment Level	Test can be perform
Plant Quarantine Laboratory Standard Testing, Jakarta	Quarantine Level 3	- Cultural and morphological test - Serological Test - Molecular Test – PCR - Sequencing for DNA
Crop Protection Laboratory, Medan	Quarantine Level 1	- Cultural and morphological test - Molecular Test - PCR
Rubber Research Laboratory, Medan	Quarantine Level 1	- Cultural and morphological test - Serological Test - Molecular Test - PCR

## Past Activities on SALB

- ❑ Research – plant breeding : -
- ❑ Training experience : -
- ❑ Public awareness program: [Q-leaflet](#), [Q-banner](#), [Q-pamphlet](#), [RRI-banner](#), [RRI-poster](#) (in local language)
- ❑ Training program in country : -
- ❑ Availability of trainers and training material (s) : expertise (9), leaflet, pamphlet, banner, poster

## Specific Training Programme on SALB

- ❑ Conducted previous by : -
- ❑ Plan on Training Program : (would be covered on recommendations)

## Legislation and Law

- ❑ Law No. 16 of 1992 : Animal, Fish, and Plant Quarantine
- ❑ Government Regulation No. 14 of 2002 : Plant Quarantine,

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 point of entry;
3. Notified and presented to Plant Quarantine Inspector at the point of entry for Plant Quarantine actions

Agricultural Minister Decree No. 861/Kpts/LB.720/12/1989 :  
Prevention of entry of SALB into the territory of Republic Indonesia

1. **Prohibition:**

Any importation of plant propagating materials of Hevea from the endemic countries essentially is prohibited.

2. **Restriction and treatment:**

Any importation of plant propagating materials of Hevea and products of Hevea from the endemic countries is allowed with some requirements:

- importation only for government research purposes
- importation 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

**For propagating materials of Hevea in the form of seedlings:**

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

**For propagating materials of Hevea in form of seeds:**

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

**For propagating materials of non-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
- 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

**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

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

- must be treated at the point of entry in Indonesia

**3. Treatment in Indonesia**

Any importation of non propagating plant material of non-Hevea from the endemic countries must treated at the point 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 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 30 minutes , or
- Hot air treatment at temperature of 75 °C or more for 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, or

**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. 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 for a volume of 1.5 m<sup>3</sup>

**g. Vehicles and Containers**

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

**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>

## RECOMMENDATIONS

1. Rubber producing countries (Asia and Pacific) should have the same perception on : the importance of SALB, efforts and actions to prevent the entry of SALB into the Asia-Pacific countries.
2. Government of Indonesia must:
  - Inform or socialize the importance of SALB and its introduction have impact on the rubber industry to all stakeholders
  - Create public awareness on SALB through various effective methods: short video at the waiting room of domestic and international airports
  - Produce and distribute leaflets about SALB to universities/schools, hotels, etc

3. Rubber Research Institute and Agricultural Plant Quarantine (as Immediate Programmes) should:
- Organize or participate on seminar, conference, meeting to socialize the importance of SALB
  - Produce leaflets, banner, poster and organize training/meeting to farmers and other stakeholders in collaboration with private companies, like rubber processing factories, tyre's companies through their CSR funds
  - Create an identification training on SALB for plant quarantine officers, especially at the entry point