

INTRODUCTION

South American leaf blight (SALB) is a fungal disease of rubber trees and poses a major threat to the region. Prevention of the introduction of SALB is of major concern to member countries of the Asia and Pacific Plant Protection Commission (APPPC) and is one of the priority areas in the work plan of the APPPC. FAO has provided technical support to the initiatives of the APPPC cover the past years with remarkable success. One such output was publication of the first volume in this series – RAP publication 2011/07: *Protection against South American leaf blight of rubber in Asia and the Pacific region*. The publication was prepared as a set of reference materials to improve phytosanitary measures and safeguard against the incursion of South American leaf blight of rubber into countries in the region and prepared the ground for further progress. It contained four reference books, as follows:

- Book 1.** Pest risk analysis for South American leaf blight (SALB) of rubber (*Hevea*)
- Book 2.** APPPC RSPM No. 7: Guidelines for the protection against South American leaf blight of rubber
- Book 3.** Work plan for the importation of budded stumps of budwood of *Hevea spp*
- Book 4.** Contingency plan for South American leaf blight (*Microcyclus ulei*)

As follow-up by the APPPC working group on SALB, a regional workshop was organized in 2011 for development of a training programme and production of reference materials for protection against SALB in the Asia-Pacific region, contained in this second volume. It includes reference materials, a training programme and operational guidelines, as follows:

Section 1. Reference materials

Section 1.1. Leaflet

A leaflet on SALB was prepared for the general public to increase awareness about the danger of the disease and the responsibilities of the public to protect their countries from incursion of the disease. It is a 1-page leaflet that contains pictures of SALB symptoms on young and mature leaves, shoot and rubber field infected and general information of SALB.

Section 1.2. Pamphlet

The pamphlet on SALB is targeted for extension and quarantine officers. The contents include introduction of the disease, pathogen, host range, symptoms and life cycle, distribution and spread, damage, management and the threat of SALB.

The pamphlet consists of information with design, detailed information and pictures on planting material.

Section 1.3. Booklet

A booklet on SALB was produced to be used as training material for pathologists and technical officers. The contents include detailed information on distribution, symptoms, the pathogen (*Microcyclus ulei*), disease spread and infection, economic importance, disease control, disease management, conclusions and references.

Section 1.4. PowerPoint presentations

Power point presentations. Seven topics were prepared as examples to be used for in-training materials for in-country trainings:

- i) Diseases of *Hevea* rubber
- ii) The distribution and importance of South American Leaf Blight (SALB)
- iii) South American Leaf Blight (SALB): The causal pathogen and the disease
- iv) The epidemiology and host parasite interaction of SALB

- v) Management of South American Leaf Blight (SALB)
- vi) Quarantine measures against South American Leaf Blight (SALB)

Section 1.5. Banner and poster

Banner and poster for general public awareness.

Section 1.6. Bibliography

Bibliography consisting of 336 abstracts from relevant materials relating to SALB.

Section 2. Training programme for protection against South American leaf blight of rubber in Asia and the Pacific region

The purpose of the training programme was to build capacity to ensure the availability of competent and knowledgeable personnel to implement the various phytosanitary measures in relation to SALB. The training programme consists of lectures, demonstrations and laboratory sessions. The programme is divided into four modules. Module 1 is on the biology of the host plant, the biology and economics of SALB and *M. ulei* and other diseases of the rubber plant. Module 2 covers information on SALB and quarantine measures to reduce the risks of the introduction of SALB. Module 3 covers measures to eradicate the outbreak of SALB. Participants of the training programme would include plant quarantine officers, plant pathologists, crop protection officers, extension officers, and quarantine officers at entry points, technical/diagnostic officers, laboratory technicians and officers from other relevant agencies.

Module 4 consists of the proposed programme for the workshop on SALB convened in Brazil. The objectives of the workshop were to provide hands-on training on the diagnostics of SALB so that the participants would be able to recognize and identify SALB symptoms and its pathogen. Upon their return, participants were expected to train other officers in their country and the region in a training of trainers programme. The training programme consists of lectures, laboratory sessions and field visits. It was proposed that NPPO of Brazil assist in the organization of the workshop including arranging for field visits to fruit farms.

Section 3. Operational guidelines for importation of *Hevea* plants for planting to protect against South American leaf blight

The purpose of the Operational Guidelines is to establish an effective quarantine procedure relating to the importation of planting materials. The main objective of the operational guidelines is to reduce the risk of entry and spread of SALB into the Asia and the Pacific region. These operational guidelines will be used by National Plant Protection Organizations (Plant Quarantine officers, Plant Quarantine inspectors, plant pathologists) and other related personnel in the APPPC rubber growing countries to deal with the importation of rubber planting materials from SALB endemic countries. The contents of the guidelines include the scope, references, glossary, definitions, flow chart of work plan, legal authority, management responsibility, resources, quarantine procedures, document management and record control and training.

It is expected that this publication will contribute to a more coordinated regional effort in preventing the incursion of SALB, that would be detrimental to the economies of many rubber growing countries in the region, through training approaches and public awareness movements in member countries.

It is recommended to create public awareness initiatives in member countries for the prevention of the introduction of SALB. The activities may include:

- Distribution of leaflets, posters and pamphlets on SALB
- Organization of public lectures/seminars
- Broadcast of relevant articles on SALB in appropriate media – newspapers, magazines, radio, television, websites
- Establish a National SALB committee to carry out activities including awareness/training programmes, surveillance, control measures and other related activities
- Distribute videos on SALB