Bulletin of the Rubber Research Institute of Sri Lanka, (1998) **38**, 60-64

STRATEGIES TO PREVENT SOUTH AMERICAN LEAF BLIGHT ENTERING INTO THE TERRITORY OF THE REPUBLIC OF SRI LANKA

C K Jayasinghe

All natural rubber producing countries are of strong feelings on danger of spreading SALB into the Asian continent. Having considered the APPC and ANRPC agreements, Sri Lanka has adopted appropriate measures to prevent the introduction of SALB into its territory.

Strict phytosanitory regulations have been enforced to the extent that no any plant or part of a plant originating in American Tropics are allowed into the country as quarantine is the front line of defense system against unwanted exotic pests. Educational programmes are being conducted regularly to increase the awareness of the danger posed by SALB. Custom Officers, Quarantine Officers, Rubber Extension Officers and rubber growers are the target groups of these training classes. A Country Committee with competent authority representing respective Ministries was established to look into all functions pertaining to prevention of this deadly disease contaminating Sri Lankan territory. SALB eradicating mock exercises are being carried out to enhance the preparedness to combat accidental outbreaks. Presently RRISL is geared with necessary high powered sprayers and chemicals to conduct emergency defoliation operations. Scientific articles as well as leaflets for general public have been prepared and distributed among relevant parties.

A poster distributed by ANRPL on SALB

South American Leaf Blight (SALB), the most devastating disease of para rubber is still endemic to several parts of Central and South America often referred to as American Tropics. The disease has severely retarded the rubber industry in those countries and it has been identified as the single factor responsible for the

complete failure of attempts to cultivate para rubber in most of the agroclimatic zones in Bolivia, Brazil, Colombia, Guyana, Peru, Trinidad, Venezuela, Panama, Costa Rica, Mexico and Guatemala.

SALB also threatens the rubber plantations of Asian and African continents as the prevailing climate in those countries is ideal for pathogen to spread and establish. Moreover, all rubber clones planted in both continents are highly susceptible to the disease. Further, the risk of contaminating Asian plantations with SALB has increased tremendously with the recent introduction of direct flights from SALB endemic countries to Kuala Lumpur and Bangkok.

SALB being a global problem, two International Plant Protection Conventions are in operation with the view of preventing the spread beyond American Tropics. The first convention is a supplementary agreement under Article III of the International Plant Protection convention of 1951 and this is referred to as Plant Protection Agreement for the Asia Pacific Region (APPPC). Twenty four countries including Sri Lanka are bound to carry out the APPPC recommendations in their territories to exclude SALB from the region. Later in 1984 the Association of Natural Rubber Producing Countries (ANRPC) of which Sri Lanka is also a member having realized the danger of this disease has signed an agreement among member countries to adopt common policies for prevention of entry of SALB into South East Asia.

Having considered the objectives and proposals of both agreements very carefully following measures have been adopted in Sri Lanka a) to prevent the introduction of SALB into Sri Lankan territory and b) to eradicate the disease in an event of it's accidental introduction into the country.

1. Phytosanitory regulations enforced in Sri Lanka

Movement of planting material from American Tropics into Sri Lanka

The first line of defense against any exotic pest is the quarantine. Having realizing this, strict quarantine procedure has been enforced at the entry points to safeguard our rubber plantations.

Plant Protection Ordinance No 10 of 1924 (Gazette Extra Ordinary of the Democratic Socialist Republic of Sri Lanka No 165/2 of November 2nd, 1981) provides access for the protection of Sri Lankan territory against unwanted exotic pests. According to the Regulation 2(i) of the Part I **importation of any plant or part of a plant capable of further growth or propagation and originating in the American Tropics or in any other country where South American Leaf Blight occurs is prohibited.** This regulation provides the legal basis to avoid all the possible contaminations of Sri Lankan territory through infected or contaminated planting material.

Requirements for travellers

Action had been taken to display a notification at the Bandaranayake International Airport for the information of disembarking passengers, particularly those travelling from South American Countries. Custom Officers and Quarantine Officers were requested to identify the passengers coming directly from South American region and advise them according to the Article (IV), Appendix B of the APPPC Agreement: 'On arrival, body decontamination consists of taking a shower, immersion of used clothes in soap solution and treatment of all personal belonging'.

2. **Educational programmes on SALB**

Rubber Research Institute of Sri Lanka has been undertaking several measures to increase the public awareness of the danger posed by SALB to the Sri Lankan rubber industry. The measures include training programmes and distribution of leaflets. Target groups of the training programmes are Quarantine Officers, Custom Officers, Rubber Extension Officers and rubber growers.

The topics covered in the training programmes include:

a) Biology of the pathogen
b) Symptoms of the disease
c) Epidemiology
d) Economic threat to industry
e) Possible modes of entry into our territory
f) Measures against spread beyond tropical America
g) Management strategies

Video clips and training manuals are available with the courtesy of ANRPC for these training programmes and necessary printed materials are provided by the RRISL. The Liaison Officer of SALB in Sri Lanka has conducted twelve national training courses since 1994.

3. **Overseas training**

With the assistance of ANRPC/IRRDB several officers (8) have been trained either in South America or Malaysia on all aspects of SALB. The officers trained in South America got the unique opportunity to observe the symptoms of the disease in the field and control measures being applied in their plantations.

4. Country Committee on SALB

A long felt need was fulfilled in January 1995 with the establishment of Country Committee on SALB in Sri Lanka. The Committee consists of representatives from the Ministry of Public Administration, Home Affairs, Plantation Industries and Parliamentary Affairs, Department of Civil Aviation, Department of Agriculture, Department of Customs, Rubber Development Department and Rubber Research Institute.

The main duties of this committee are to look into a) any outbreaks of SALB, b) international air traffic, c) research on SALB, d) quarantine aspects and e) immigration procedures of the passengers and this is the body with competent authority in carrying out all functions pertaining to prevention of this deadly disease contaminating Sri Lankan territory.

5. SALB Eradication mock exercise

According to the ANRPC agreement Mock Exercises are being carried out time to time by the staff of the Plant Pathology & Microbiology Dept of the Rubber Research Institute of Sri Lanka. The purpose of this exercise is to test the efficiency of available chemicals and machinery imported into the country and enhance the preparedness to combat accidental outbreak of SALB.

6. Availability of machinery and chemicals to be used in an emergency

a) Two ASPEE mist blowers (ground sprayers) were imported from India specially for this purpose, as it was shown that economy, terrain and land area in Sri Lanka are not acceptable for aerial spraying.

b) GARLON, the chemical recommended to be used as a defoliant has brought to the country in 1997.

c) The recommended fungicides, benomyl and deconil are also available in ex-stocks in the open market in Sri Lanka.

7. Publications

More than 4000 leaflets have been distributed among the Quarantine Officers, Custom Officers, Extension Officers and rubber growers to-date to increase the awareness of the danger of SALB. The main idea of distributing these leaflets was to educate the Officers and general public on the symptoms of SALB which fascilitates them to detect the disease in an outbreak.

A scientific article entitled "South American Leaf Blight - Likelihood Behaviour in Sri Lanka & Strategies in Management". (Jayasinghe, 1992) was published based on the experience gained from participating a workshop on SALB in Brazil. This publication highlights the possible behaviour of *Microcyclus ulei*, the causative agent of SALB in Sri Lanka if it crosses our territory and predicts that it would be destructive in Sri Lanka, particularly to those agroclimatic areas which suffer from heavy attack of the powdery mildew.

Most of the published literature (around 50 publications) on SALB are available at the Rubber Research Institute of Sri Lanka and could be made available to any interesting party on request.

Suggestions for Any Improvements to Existing Strategies are Welcome - We Need Your Cooperation to Keep SALB Away From Evergreen Sri Lanka

ACKNOWLEDGEMENTS

Poster reproduction: Courtesy - ANRPC. Author wishes to thank Mrs P Amarasekera for word processing.

REFERENCES

Jayasinghe, C K (1992). South American Leaf Blight - Likelyhood behaviour in Sri Lanka and strategies in management. *Bulletin of the Rubber Research Institute of Sri Lanka* 29, 21-26.