Indian J. Nat. Rubb. Res. 4(2): 126–130, 1991

A SOIL ACTINOMYCETE ANTAGONISTIC TO *CORTICIUM SALMONICOLOR* CAUSING PINK DISEASE OF RUBBER

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Kochuthresiamma Joseph, Kothandaraman, R., Jacob Mathew and Jayarathnam, K. (1991). A soil actinomycete antagonistic to *Corticium salmonicolor* causing pink disease of rubber. Indian J. Nat. Rubb. Res. 4(2): 126–130.

Actinomycetes from the rhizosphere soils of five clones of rubber were tested against *Corticium salmonicolor*, the pathogen causing pink disease on rubber. One of the isolates had an inhibition zone of 40 mm when tested in agar medium and caused lysis of the mycelium upto a distance of 20 mm from the inoculated point, in 72 h. Sterile rubber twigs treated with the actinomycete also prevented the growth of *C. salmonicolor*. The actinomycete was found to survive in the bark of rubber tree for one month under field conditions. Application of actinomycete broth culture on infected trees indicate promise in controlling pink disease.

Key words:- *Hevea brasiliensis*, Pink disease, *Corticium salmonicolor*, Biological control, Actinomycete, India.

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INTRODUCTION

Pink disease of rubber [(*Hevea brasiliensis*) (Willd. ex Adr. de Juss.) Muell. Arg.] caused by the fungus, *Corticium salmonicolor* Bark. & Br., is one of the serious diseases. Application of 10 per cent Bordeaux paste, 0.25 per cent Thiride in petroleum jelly (Edathil and Radhakrishna Pillai, 1976) or 2.5 per cent Calixin in 1 per cent ammoniated rubber latex (Edathil and Kuruvilla, 1983) is the recommended control measure. Though fungicides are indispensable to attain high agricultural productivity, there is a growing concern about their harmful effect to man and wild life. Environmental pollution is another aspect of concern and of late, biological control of plant diseases is considered safe and economic. Among the various biocontrol agencies, actinomycetes are important as they produce antibiotics. A survey conducted by the Rubber Research Institute of India showed that soils of rubber plantations are rich with actinomycetes antagonistic to pathogens of rubber (Kochuthresiamma *et al*, 1988). On testing the actinomycetes isolated from the rhizosphere of rubber and soil for antagonism against *C. salmonicolor*, one isolate recorded very high antagonistic activity. This paper describes the possible use of this actinomycete for controlling the pink disease of rubber.

MATERIALS AND METHODS

Source of actinomycete

Actinomycete isolates from the rhizosphere of five clones of *Hevea* were subjected to cross streak assay against *C. salmonicolor* following the method of Grove