PINK DISEASE OF *HEVEA*: A REPORT FROM MEGHALAYA

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In India, the rubber tree (*Hevea brasiliensis* Muell. Arg.) is successfully grown in the South-western coastal region comprising of Kerala and the adjoining districts of Tamilnadu and Karnataka. Since the natural rubber production is not sufficient enough to meet the increasing demand, it is necessary to increase production by extending the areas of rubber plantation to other suitable locations like North-eastern states of India. The rubber plantation in North-eastern region has already been taken up by private sectors to stop "*Jhum*" cultivation in this region. As the rubber has become an important plantation crop in N.E. India, investigation on the detrimental effects on health and vigour of *Hevea* is very essential.

The rubber plants are affected by various economically important diseases like abnormal leaf-fall, powdery mildew, pink, brown root etc. (Edathil and Pillai, 1976; Edathil and Jacob, 1983; Hilton, 1958; Radziah *et. al.*, 1992). Pink desease caused by *Corticium salmonicolor* affects the stem and branches of *Hevea*. The pink desease of *Hevea* occurs in almost all rubber growing regions in Kerala and adjoining districts of Karnataka and Tamil nadu during South-west monsoon where it causes considerable loss of canopy which ultimately retards the growth and extends the period of immaturity (Pillai, 1962; Pillai and Gorge, 1980). The incidence of pink disease in North-eastern region of India was first reported by Mondal *et. al.* (1994) from Assam and Tripura. As the scientific report on the occurrence of pink disease of *Hevea* from Meghalaya in N.E. region is not available, a survey was carried out for the same in different rubber growing locations under East and West Garo Hills districts of Meghalaya.

The occurrence of pink disease was first noticed in June 1996 on two *Hevea* plants (PB 28/59) at the age of 5-6 years at Jenggitchakgre, about 12 km away from Tura at an altitude of 400m above MSL latitude 25-26°N and longitude 90-90°45E. At the initial stages of infection a cobweb like film of silky white mycelium was noticed on the upper side of bark surface just near the forking region (Fig.1). The mycelial growth was extended from the point of infection to more than 60 cm and completely encircled the affected portion of the stem. Gradually the hyphae of the pathogen penetrated the cortical tissues. With the advancement of infection the exudation of latex from the affected portion was noticed. Later mycelia turned into pink in color and the affected branches started drying and dead branches with dried leaves along with long black streaks of coagulated latex and many side shoots from the dormant buds just below the dried points were noticed.

The causal organism was isolated from the in-

Fig.2. A Rubber plant infected with Pink disease

salmonicolor Berk & Br. The mycelium was hyaline in colour, septate, thin-walled and produced unicellular spores. Koch postulate , was proved by inoculating healthy branches and reisola tion of the fungus from infected portions. An attempt was also made to control pink disease by the application of Bordeaux paste over the affected portions upto 30cm above and below the affected bark samples and maintained in oats agar medium. Based on the morphological and cultural characters, the fungus was identified as *Corticium* affected region. (Pillai, 1962). In advanced stages of infection, Bordeaux paste was applied on the affected portion and then scrapped to remove decayed bark with mycelium which was followed immediately by a second application of Bordeaux paste (Fig. 2). However, effective control of pink disease was noticed in the application of Bordeaux paste at the early stages of infection.

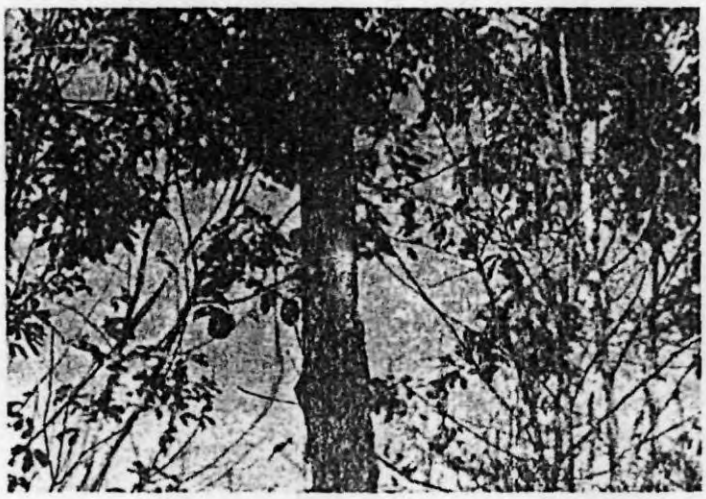

Fig 2. The infected plant treated with bordeaux paste.

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