

Short Communication

PINK DISEASE ON *EUCALYPTUS CAMALDULENSIS* IN BANGLADESH

Eucalyptus camaldulensis Dehnh. of Petford provenance is being planted fairly widely on a commercial basis for fuelwood and other purposes in Bangladesh. In November, 1989, a disease on eucalyptus plantations was recorded at Cox's Bazar, Keochia and Sylhet. In July, 1990, the same disease was recorded in Sylhet and Dinajpur. Similar type of symptom of the disease was observed in all the plantations.

Among the twelve sites, the most affected plantations were at Khadimnagar and Meherghona where trees showing disease symptoms and cankers were 90% and 50% respectively. The least affected areas were Satchari and Rashidpur where 5% of the trees showed disease symptoms and cankers were formed on 2% of the trees (Table 1).

Table 1: Status of pink disease in different plantations of *Eucalyptus camaldulensis*

Eucalypts Plantation in acre	Plantation size in acre	Year of plantation	% of trees showing pink disease symptoms	% trees showing cankers	No. of dead trees
Keochia	3	1981	10%	2%	—
do	5	1986	50%	20%	few
Harbang	2.5	1986	75%	10%	—
do	5	1987	75%	15%	—
Khadimnagar	80	1988	90%	50%	few
Joarianala	5	1984	90%	50%	few
Satchari	240	1988	5%	2%	few
do	250	1989	5%	2%	few
do	180	1990	—	—	—
Rashidpur	30	1989	5%	2%	few
Birganj	1	1987	50%	10%	—
Bhogdoma	75	1986	75%	5%	—

The first symptom of infection appeared as an exudation of gum from the areas of stem with young and thin bark. Thereafter, silky-white mycelia grew and attained a pinkish colour. With the death of the bark, the mycelial threads dried to form pink pustules in the cracked barks. In Khadimnagar, where the age of plantation was two years, about 50% of the trees showed canker but only a few trees died due to complete girdling. The cankers were seen mostly at the height of 1 m above the ground. The leaves of the infected trees showed pinkish spots. The upper branches died gradually

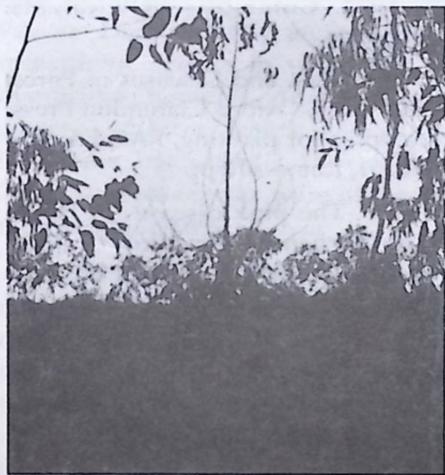


Fig. 1: A tree showing late symptom of pink disease

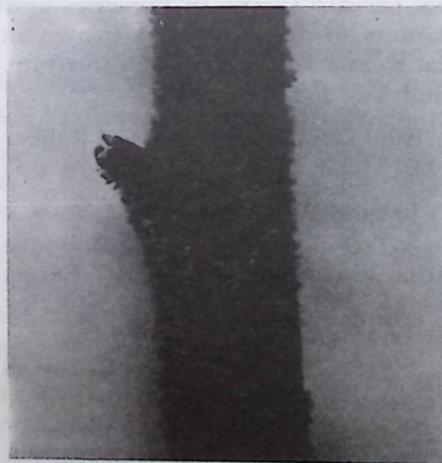


Fig. 3: A portion of dead branch showing pustules of the pathogen

showing signs of dieback. In course of time, dying of lower branches along with the main stem proceeded downward. The dead portion of stem looked brown to blackish in colour. Below the girdling, on the main stem, several epicormic branches appeared which again were infected by the pathogen of the disease. Trees of different ages were susceptible to the disease but young plants were severely damaged. In the hilly plantations, the dying of infected trees were more in the valley and shaded areas than those in the hill tops. Trees suffering severe damage from repeated dieback, led to the death of the



Fig. 2: A portion of stem showing canker development

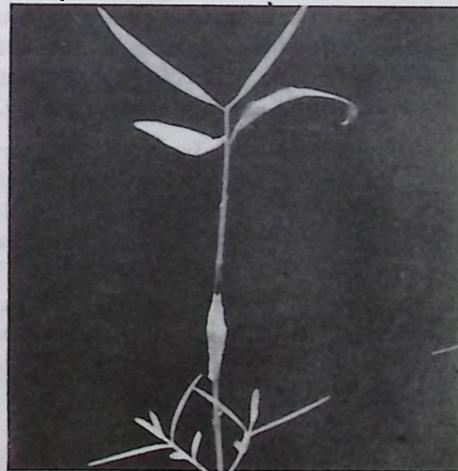


Fig. 4: A seedling showing characteristic symptom of pink disease after pathogenicity test.

whole trees within a few months. In case of trees of good growth and height, the infection was localized and trees were not girdled but the barks cracked longitudinally forming cankers in different places due to pressure of callus growth (Figs. 1-4).

Isolation of the pathogen was done by using fresh samples. The pathogen was identified as *Corticium salmonicolor* Berk. and Br. It causes the disease which is commonly known as pink disease.

The pathogenicity test was carried out with six months' old seedlings of *E. camaldulensis*. Re-isolation of *C. salmonicolor* from the dying inoculated seedlings confirmed that the fungus was responsible for the pink disease of *E. camaldulensis*.

In Bangladesh, this is the first report of pink disease caused by *C. salmonicolor* on *E. camaldulensis*. The pink disease caused by *C. salmonicolor* has worldwide distribution in most areas of the humid tropics and sub-tropics (Mordue and Gibson 1976 ; Seth *et al* 1978). The fungus possesses a wide range of host among woody plants numbering more than 141 species belonging to 104 genera (Sharples 1936). High humidity built up around plants during rainy season or due to heavy weed growth creates an ideal microclimate for the pathogen to develop into an epidemic stage (Sharma *et al* 1985). Although the fungus is present in Australia, yet it has not been found on eucalypts (Browne 1968). *Eucalyptus* spp., therefore, have not developed natural resistance to it (Seth *et al* 1978).

The disease has been recorded on *Eucalyptus* spp. in the Congo, Cameron, India, Nigeria, Mauritius, Brazil and Costa-Rica (Bakshi *et al* 1970 ; Bakshi 1972). In India, the disease caused severe losses on plantations of 2-5 years of *E. tereticornis*, *E. grandis* and *E. globulus* in Kerala, Karnataka and Goa. The symptom of pink disease was observed in 6 months' old seedlings

during the pathogenicity tests and in plantations of more than 5 years' old. The pink disease on *E. camaldulensis* is a new record in Bangladesh. Detailed study on the infection biology should be undertaken in order to develop suitable preventive and/or control measures.

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