

Short Communication

COLLAR ROT OF KEORA (*SONNERATIA APETALA*) SEEDLINGS IN THE COASTAL AFFORESTATION NURSERIES OF BANGLADESH AND ITS CONTROL

Keora is one of the most important mangrove species of the Sundarbans. It is a favoured fodder tree for mangrove wildlife. The gibberellic acid content of the leaves promotes quick post larval growth of prawn and fishes (Roy Choudhuri 1990). Since 1960, keora has been considered as the main species for the coastal afforestation programmes of Bangladesh. It alone forms 67% of all planted area, amounting to 17,000 ha in the coastal area of Bangladesh (Drigo *et al.* 1987; Rahman *et al.* 1990). A serious collar rot disease of keora in the nurseries of Uttar Kattali under Chittagong Coastal Afforestation Division was observed in November, 1990. There were 750 beds of seedlings of two to three months' old. The overall mortality of the seedlings was 10%, although some parts of the nursery were damaged heavily. The disease was also observed in the nurseries of Char Habibia, Char Alexandar and Hatia under Noakhali Coastal Afforestation Division. The mortality of seedlings in those nurseries were 20%, 10% and 20% respectively.

The first symptom of collar rot appeared in the month of September and October. By this time, the seedlings attained a height of 10-15 cm. Rotten spots were found on the collar region and these spots coalesced to encircle completely the collar region. The stem above the rot bent down in one side or in severe cases it just felled on the ground. The extent of rotting

was so serious that it invaded the leaves and other parts the stem in some cases. The colour of the rot was light brown. One fungus was isolated from most of the fresh specimens collected from Uttar Kattali and Char Habibia. The isolate was identified as *Chaetomella raphigera*. A pathogenicity test was done with the isolate on two months' old keora seedlings in natural conditions, and the test confirmed that the fungus was the pathogen for the rot. The collar rot of keora seedlings was successfully controlled by the use of Dithane M-45 @ 20 gms/10 l of water. The fungicidal mixture was sprayed over the whole nursery and the second spray was applied after an interval of two weeks.

Collar rot is one of the serious problems in the keora nurseries of Bangladesh. Very little information is known about the disease from elsewhere in the world. Rahman (1990) described a dieback of keora trees and isolated a fungus *Cytospora* sp. from dying branches. Roy Choudhuri (1990) mentioned about a damping-off disease of keora seedlings but he did not mention any pathogen responsible for it. The genus *Chaetomella* has been reported to cause diseases in crops like apple, pineapple, sacchari, sugarcane, tritici and wheat (C M I 1968). This is the first occurrence of the pathogen causing collar rot on keora seedlings in Bangladesh.

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