*Short Communication*

# WILTING OF SISSOO (*DALBERGIA SISSOO* ROXB.) IN STRIP PLANTATION IN BANGLADESH

Sissoo (*Dalbergia sissoo* Roxb.) is a large deciduous tree which is planted throughout Bangladesh for its valuable timber. It grows well on alluvial soil, but it does not grow healthy in the soils of heavy texture (Bakshi 1976). The species can tolerate high soil moisture under well-drained conditions, but it can not withstand water-logging even for a short period (Street 1962). On the other hand, it can tolerate a long dry period.

At Homna in Comilla, a road was newly constructed which was water-logged for a long time because of prolonged rainfall. The roadside strip plantations of *D. sissoo, Swietenia macrophylla, Albizia procera, Cassia siamea, Acacia auriculiformis* and *Terminalia arjuna* were raised in June, 1990. The sissoo saplings were growing well with drak green bushy and spreading crowns. Some of them attained a height of about two metres. A wilt symptom first appeared in the last quarter of June, 1991 and it continued to September. By July, about 25% of the 8000 saplings began to wilt. About 5% of them died completely within August. At first the leaves of lower branches became yellowish and continued towards the apex. As a rusult, the entire saplings turned yellow. The leaves lost their turgidity after a few days. Later, these dropped off the branches and finally the saplings died. The vascular tissues in the outer layer of sapwood turned pink. After the death of the saplings the roots and the stem collar stained black.

Fresh specimens were collected from the field and the isolation of associated fungi was done on 2% MA and PDA media. One fungus was consistently isolated from the sapwood of roots and stem collar. It grew well in 2% MA medium. The fungus was identified as *Fusarium solani* which is a common soil borne fungus.

No comprehensive work could be done on the control measure at the moment at this Institute, but however, the disease could be controlled by two successive soil drenshing with 1% commercial formalin at 10 days intervals along with measures to minimise water-logging.

In Bangladesh, this is the first report of wilting of sissoo saplings due to *F. solani*. *F. solani* is also responsible for the wilting of *Gmelina arborea* seedlings in the forest nurseries of Bangladesh (Rahman *et al* 1982). This fungus is prevalent in India in the plantations of unsuitable sites. The fungus possesses a wide range of saprophytic colonization (Bakshi 1955).

The disease does not occur in soils having a high proportion of sand and low silt and clay, provided the site is not water-logged and drainage is good (Bakshi *et al* 1957). In stiff and clayey soils where aeration is poor; the roots do not develop healthy and they may die. *F. solani* enters through such weakened and dead roots from where it progresses into healthy tissues. *Fusarium* is known to produce Fusaric acid which plays a great role for the wilt disease in cotton (Sadasivan 1961).

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