

A Note on the Epiphytotic Outbreak of Leaf Blight of Sorghum in India

Sorghum is the fourth most important cereal following wheat, rice and maize which is a staple food in tropical Africa, India and China. With 18 million hectares sorghum is an important millet of India with an average yield of 10.8 Q/ha and 4.7 q/ha in *Kharif* and *Rabi*, respectively (Bapat, 1991).

Leaf blight caused by *Trichometasphaeria turcica* (Pass) Leonard devastated *rabi* sorghum in Bijapur and Solapur districts of Karnataka and Maharashtra, respectively in India during 1991-92, 1992-93 and 1993-94. The pathogen induced long elliptical necrotic lesions which were parallel to the main axis of the leaves. Margin of the lesion was dark coloured with brownish to straw coloured centre. Greyish black colouration of lesion consisting of conidia and conidiophores occurred under humid conditions. Lesions increased in size and number destroying large areas of tissue giving a burnt appearance. Only anamorph was present on leaves of M-35-1 and 5-4-1 (Muguti) varieties of sorghum. M-35-1 is a ruling cultivar of *rabi* sorghum released in 1941-42 from Mohol (Maharashtra) with remarkable features like drought and shootfly tolerance, dual purpose utility (Grain and

fodder), superior grain quality with attractive pearly white grains (Anonymous, 1965). Presently it is occupying about 4 lakh hectares in Bijapur district in Northern Dry Zone-3 (Region-II) of Karnataka.

The newly released All India Co-ordinated Sorghum Project Hybrid CSH-13R recorded tolerant reaction (Grade-1). Whereas M-35-1 & 5-4-1 varieties recorded grade 8 in 0-9 scale. The causal organism was isolated and Koch's postulates were proved. The causal organism was identified as *Exserohilum turcicum* (Pass) Leonard the anamorph of *Trichometasphaeria turcica* (Pass) Leonard by International Mycological Institute Biosystematics Services, United Kingdom (IMI-361133b). Similarly severe incidence of *Exserohilum turcicum* on Maize was reported from Uganda (Adipala *et al.*, 1993).

This is the first record of wide spread epiphytotic of leaf blight of Sorghum caused by *Trichometasphaeria turcica* (Pass) Leonard in India.

The author is grateful to International Mycological Institute, England (UK) for identification of the pathogen.

Department of Plant Pathology
UAS, Dharwad - 580 005

S.A. DESAI

(Received : October, 1997)

References

- ADIPALA, E., P.E. LIPPS AND L.V. MADDEN, 1993, Occurrence of *Exserohilum turcicum* on Maize in Uganda. *Plant Disease*, **77**: 202-205.
- ANONYMOUS, 1965, *Improved varieties of crops* (Govt. of Karnataka), pp. 8-9.
- BAPAT, D.R. 1991, Sorghum in Maharashtra. A technical bulletin on Sorghum Cultivation. pp. 7-39.