Agri. Res. J. Kerala, 1980, 18 (1) 141—142

LEAF BLfGHT OF *DIOSCOREA ESCULENTA* (LOURD.) BERK.

Dioscorea esculenta, commonly known as lesser yam or Chinese yam, is cultivated in all parts of Kerala as a tuber crop, During 1978, the crop cultivated in the Instructional Farm, College of Agriculture, Vellayani showed severe symptoms of leaf blight. The disease is prevalent throughout Kerala.

The disease manifested itself in the form of small specks on any part of the leaf lamina, which gradually enlarged and turned brown. Spots were irregular in outline with a prominent yellow halo. These spots increased in size quickly and the adjacent soots coalesced forming big necrotic patches covering the entire leaf lamina Inward curling of the leaves was also noticed due to the drying, which was more pronounced at margins or tips of the leaf lamina. In advanced cases of infection, all the leaves became blighted resulting in withering of the plants (Fig.1).

The disease affected the plants at all stages of growth, but it was more serious and destructive when the plants were infected at early stages of growth.

Isolations from the diseased parts always yielded a species of *Colletotrichum.* Pathogeniciiy tests were carried out using two months old plants by spray inoculating with suspension of conidia obtained from 8 days old cultures. Inoculated plants were kept under saturated humid condition. Symptoms initiated 3-4 days after inoculation and were fully developed in 8-10 days. The same organism was re-isolated from the artificially produced spots.

The causal organism grew and sporulated well on potato dextrose agar medium (PDA). Conidia were cylindrical, single celled, hyaline with obtuse ends (11.87 to 15.03 μ long and 3.95 to 4 65 μ broad). Theorganism was identified as *Colletotrichum gloeosporioides* Penz. based on the characters enumerated by Von Arx (1957) and Mordue (1971), which is a new record on *Dioscorea esculenta* (Lour.) Berk.

The organism was earlier reported on *D. alata* L. by Prasad and Singh (1960), causing anthracnose disease and on *D. composita* by Alam *et al.* (1978). Rangaswami *et al.* (1970) reported *Colletotrichum* sp. from Mysore on *Discorea* sp. There is no previous report of leaf blighf of *D. esculenta* by *C. gloeosporioides* Penz,

The authors are thankful to the Kerala Agricultural University for the facilities provided.

സംഗ്രഹം

ഡയോസ്ക്കോറിയ എസ്ക്കുലെൻറാ എന്ന കിഴങ്ങു ചെടികളുടെ ഇലകളെ ബാധിക്കുന്ന ഒരു കുമിളം രോഗത്തെപ്പററി ഇദംപ്രഥമായി കേരളത്തിൽനിന്നും റിപ്പോർട്ടു ചെയ്തിരിക്കുന്നു. രോഗഹേതുകമായ കുമിളം കോളിറോട്രിക്കം ഗ്ളിയോസ്പോറിയോയിഡ്സrai9)S)iiriom" കാണുകയുണ്ടായി.

References

Alam, M., Singh, H. N, and Husain, A. 1978, A new leaf blight disease of *Dioscorea composita* from India. *Indian Phytopath.*, 31, 552.

Mordue, M. 1971. Description of pathogenic fungi and bacteria. C. M. I. Sheet No. 315.

Prasad, N. and Singh. R. D. 1960. Anthracnose disease of *Dioscorea a/ata* L- *Curr. Sci.*, **29**, 66 -67.

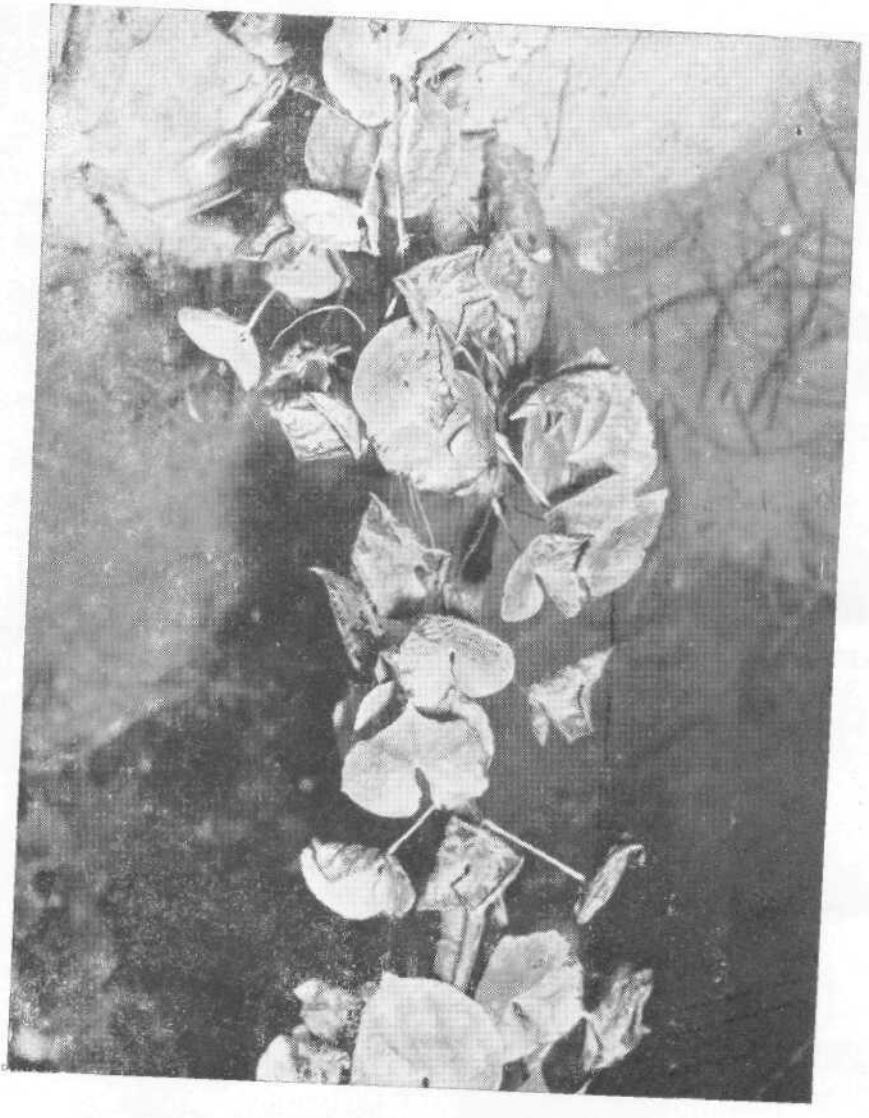
Rangaswami, G., Seshadri, V. S. and Lucy Chinnamma, K. A. 1970. Fungi of South India. University of Agricultural Sciences, Bangalore, pp. 193.

Von Arx, J. A. 1957. The species of the genus *Colletotrichum. Phytopath. Z.,* 29, 413-468.

College of Agriculture,
Vellayani 695 522,
Trivandrum.

M. CHANDRASEKHARAN NAIR
P. KARUNAKARAN
C GOKULAPALAN

(MS *Received ; 3-12-1979*)



F.g. 1 Symptoms of leaf blight of *Dioscorea esculenta* caused by *Colletotrichum gloeosporioides*