

## SHORT NOTES

### LUCERNE: A NEW HOST FOR *CHOANEPHORA CUCURBITARUM* IN PAKISTAN

M. A. Randhawa\*, M. B. Ilyas and Ehsan-ul-Haq

A new disease of Lucerne (*Medicago sativa* Linn.) was observed at Chak No. 9 J. B., District Faisalabad during August, 1982. The upper parts of diseased plants including the inflorescence were bleached out and dehydrated, whereas the lower portions remained green. Close examination revealed diseased parts bearing a dense growth of fungal hyphae and heads of black fruiting bodies. The causal organism from diseased specimens was isolated on PDA in the Department of Plant Pathology, University of Agriculture, Faisalabad, and upon identification was found to be *Choanephora cucurbitarum* (Berk and Rav.) Thaxter. The fungus is believed to have attacked the host inflorescence and progressed further down to the lower parts of the plant. This was readily apparent in fresh specimens.

#### DESCRIPTION OF THE FUNGUS

The fungus grew rapidly on PDA slants covering the surface with a white cottony fluffy growth of hyphae. Within two days, the fungus formed typical white conidial heads which turned black with maturity. The conidiophores of the fungus produced on the host were 8.5  $\mu$ m wide and upto 1.5 mm long. Conidia were borne in groups on the vesicles produced by the branched end of the conidiophores. Conidia were olivaceous brown, ellipsoid with longitudinal striations and measured 13-24 x 8-13  $\mu$ m with an average of 17 x 10  $\mu$ m. Vesicles were about 100  $\mu$ m in diameter.

#### PATHOGENICITY

Thirty days old lucerne seedlings planted in 20 pots, each with 3 plants, were used for pathogenicity test. A spore suspension of *C. cucurbitarum* ( $5 \times 10^4$  conidia/ml of  $H_2O$ ) prepared from PDA culture was sprayed with a hand

---

\*Department of Plant Pathology, University of Agriculture, Faisalabad.

*Choanephora cucurbitarum*

atomizer on ten pots, while the remaining ten pots served as water sprayed control. The pots were kept in the green-house at temperature ranging from 25-30°C. Within a period of 7-10 days, the inoculated plants developed characteristic symptoms of the disease as were seen on the naturally infected plants while uninoculated water sprayed plants did not develop any disease symptoms. Upon reisolation the fungus came out to be the same, i. e., *C. cucurbitarum*.

*Choanephora cucurbitarum* is reported to have a wide host range and is known to parasitise crops like squash (Wolf, 1917), cotton (Sapkal et al., 1975), egg plant and lady finger (Mirza and Qureshi, 1978), cowpea and mungbeans (personal communication; M. Bashir, NARC, Islamabad), but lucerne is reported to be a new host in Pakistan for this pathogen.

REFERENCES

- Mirza, J. H. and M.S.A. Qureshi. 1978. Fungi of Pakistan. Department of Plant Pathology, Univ. of Agri., Faisalabad.
- Sapkal, K. N., R.B. Somani and P.D. Wangikar. 1975. A boll rot of cotton caused by *Choanephora cucurbitarum*, Indian Phytopath. 27 : 611-613.
- Wolf, F.A. 1917. A squash disease caused by *Choanephora cucurbitarum*. Jour. Agri. Res. 8 : 319-328.