

***Fusarium equiseti* (Ida) Sacc., a Fungus Infecting the Okra Petiole Maggot (*Melangromyza hibisc* Spencer)**

During the course of studies of a new okra pest, *Melangiomyza, hibisci* Spencer, natural infection by a fungus attacking the pupal and adult stages of this insect was observed at the Experimental Station of the Indian Institute of Horticultural Research, Hesaraghatta. The dead adults were found adhering to the leaves, whereas the dead pupae were found within the petioles. White mycelial growth of the fungus was observed on these dead pupae and adults.

A profusely sporulating fungus was readily isolated from infected pupae and adults on potato dextrose agar medium and has been identified as *Fusarium equiseti* (Ida) Sacc.

In order to confirm the pathogenicity of this fungus, healthy pupae collected from the field were placed in sterile petriplates and were inoculated with spore suspensions of the fungus. Similarly another set of pupae inoculated only with sterile distilled water served as control. All the pupae inoculated with spore suspension died as indicated by the non-emergence of the adults, while in control, the pupae remained alive and the adults emerged out of them.

This is the first record of a species of *Fusarium* on this okra pest.

The authors are thankful to Dr. G. S. Randhawa, Director, for his interest in this work and to Dr. J. A. Von Arx, Director, Institute for Central Type Culture Collection, Netherlands, for kindly identifying this fungus.

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**Bacterial Leaf Spot of *Datura metel* Caused by *Xanthomonas campestris* f. sp. *daturi* f. spec. nov.**

A severe bacterial leaf spot disease of datura (*Datura metel* L.) was observed near Jaipur in October, 1973. Initially small, round water soaked spots are formed which later turn brown measuring upto 4 mm in diameter. These circular spots are distinctly raised and surrounded by a halo-like zone of yellow colour. The disease is mostly confined to leaves but sometimes dark brown lesions are also formed on petiole and tender stem.

A yellow pigmented fast growing bacterium was isolated from diseased leaves on nutrient agar. Bacterial suspension was prepared in distilled water from 48 hr culture grown on nutrient agar. Two months datura plants were spray inoculated by (i) injury with fine carborundum powder and (ii) without any injury. Typical water soaked spots on injured leaves were observed after 5 days, whereas

on uninjured leaves symptoms appeared after 9 days. Younger leaves were more susceptible than older leaves. Complete symptom expression on both the surfaces of leaves was observed after 15-20 days. Rolling and dropping of leaves started after a month. The bacterium was reisolated and was compared with original one in all respects. This bacterium failed to infect tomato and chilli seedlings in repeated trials but resembled in all morphological and physiological characters to *Xanthomonas vesicatoria* (Doidge) Dowson isolated from chillies. Mathew (1972) also isolated a *Xanthomonas* sp. from datura and reported the similar results. He classified this bacterium as a strain of *X. vesicatoria*.

The culture has been deposited at Commonwealth Mycological Institute, Ferry Lane, Kew, Surrey, England (IMI, B 5840) and identified by Dr. J. F. Bradbury as a forma specialis of *Xanthomonas campestris* (Pammel) Dowson. The present bacterium has been named *X. campestris* f. sp. *daturi* f. spec. nov.

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1. Mathew, J., "Studies on the bacterial leaf spot of tomato and chilli incited by *Xanthomonas vesicatoria* (Doidge) Dowson," Ph.D. Thesis, submitted to P.G. School, I.A.R.I., New Delhi, 1972.

**A New Host of Powdery Mildew**

A new powdery mildew disease was recorded on *Phaseolus trilobus* Ait. (Leguminosae; sub-family: Papilionaceae) at the College of Agriculture Farm, J.N. Krishi Vishwa Vidyalaya, Jabalpur, M.P., in August, 1973: The mildew usually appears epiphytically but sometimes it occurs amphigenously. Pedicel and pod are also affected. As the season advances, necrosis develops in the affected parts and the affected leaves defoliate.

*Morphology of the fungus*: Mycelium septate, hyaline, branched and superficial; conidiophores simple, erect, slightly swollen at the tips and bear long chains of conidia; conidia oval to oblong, hyaline and measure 19-35 x 10-20  $\mu$ . Cleistothecia absent.

The fungus has been identified as *Acrosporium* sp.

*Phaseolus trilobus* is a new host of *Acrosporium* sp. The specimen has been deposited in the herbarium of the Department of Plant Pathology, J.N. Krishi Vishwa Vidyalaya, Jabalpur, M.P.

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