
SHORT SCIENTIFIC NOTES

Occurrence of *Ulocladium chartarum* on Mango in India

During March–April 1975, small (0.1 to 0.5 cm) irregular black lesions were observed on the inflorescence axis of mango varieties 'Maldah' and 'Sukul' at Muzaffarpur.

Fungus was isolated on Potato-dextrose agar slants at room temperature. The pure culture of the fungus was sent to C.M.I., Kew, England, and was identified as *Ulocladium chartarum* (Preuss) Simmons by Dr. M. B. Ellis (IMI, 200466). The pathogenicity of the fungus was established by inoculating the healthy axis of inflorescence under natural conditions. The symptoms produced were similar to those observed in nature. The fungus *Ulocladium chartarum* appears to be the first record on mango from India or abroad.

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Botany,
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Muzaffarpur,
September 15, 1976.

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Achlya hypogyna—A Notable Addition to Indian Aquatic Fungi

During the course of tax-ecological studies of aquatic fungi occurring in alkaline ('Usar') soils and water a species of *Achlya* has been isolated from an alkaline pond (pH 8.5) of village Devi Khera, situated in the vicinity of Lucknow–Rae-Bareilly Road. The fungus was grown in sterilized distilled water on hempseed halves and identified as *A. hypogyna* Coker et Pemberton. However, this isolate differs from others described by various workers (Coker¹, Johnson², Ou³) in having thicker hyphae and non-papillate oogonia. This is the first report of the fungus from India.

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September 24, 1976.

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2. Johnson, T. W., Jr., *The Genus Achlya: Morphology and Taxonomy*, Univ. Michigan Press, Ann Arbor, 1956, p. 180.
3. Ou, S. H., *Sinensia*, 1940, 11, 427.

Trace Element Studies on Fungi. 1. Effect of Trace Elements on the Growth of Four Species of *Colletotrichum*

Effect of trace elements on the growth of large number of fungi have already been reported¹. In the present investigation effect of 17 trace elements was studied on the growth of four species of *Colletotrichum*, namely, 1. *C. capsici* (Syd.) Butler and Bisby on *Capsicum annuum* L., 2. *C. hibisci* Poll. on *Hibiscus esculentus* L., 3. *C. indicum* Dastur on *Gossypium hirsutum* L. and *Colletotrichum* sp. Thind and Rawla on *Citrus limon* Burm., which were collected from Panjab and isolated by usual procedures. The procedure adopted for study was after Thind and Rawla². The results of various experiments showed that Fe, Zn, and Mn are required for the growth of all these pathogens, Cu for the growth of *C. hibisci* and Mo for the growth of *C. capsici* and *C. hibisci*. The trace element requirements of these pathogens have not been reported so far.

Department of Botany,
Punjabi University,
Patiala (India), October 27, 1976.

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2. Thind, K. S. and Rawla, G. S., *Proc. Ind. Acad. Sci.*, 1967, 66 B, 250.

A Note on the Occurrence of Genus *Microthamnion*

Microthamnion (order Chaetophorales, class Chlorophyceae) appears to be a rare genus which has not been recorded from India so far. While working on the microflora of Shillong, the present authors came across a form in the enrichment cultures of soil samples collected in October 1974 (supplemented with Bold's basal medium). The enrichment cultures with 5 g of soil sample in petridishes were incubated in a culture chamber illuminated with a fluorescent electric tube light (approximately 1000 lux intensity near the culture vessels at 25–30° C). This form was isolated in unialgal culture in Bold's medium under the cultural conditions mentioned above.

In culture, the thalli form a bushy appearance, possess almost a circular outline, grows as scattered patches of about 2 mm dia. on agar plates. Filaments lack a distinct main axis, are irregularly branched, cells are cylindric to clavate and almost uniformly broad, and the single plate-like chloroplast lacks a

pyrenoid. On comparison with the known species the present alga resembles *M. lutzianum* in all characters and measurements.

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Allahabad, June 4, 1976.

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exhibited similar symptoms after inoculation as observed in naturally wilted plants. Repeated reisolations yielded *F. oxysporum* Schlecht.

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August 10, 1976.

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V. T. JADHAV.

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Sunflower Wilt—A New Disease from India

In 1973 *kharif* season, some of the fields of sunflower (*Helianthus annuus* L.) grown at Parbhani were affected with wilt disease. The lower leaves changed from green to yellow and the plants toppled down and died. The fungus was also found in rootlets.

Fresh wilted plants were used for isolation on potato dextrose agar medium. The culture was purified by single hyphal tip method. Primary, secondary as well as tertiary septate hyphae grew independently with profuse branching. Microconidia were 0-2 septate and coniform or ellipsoidal in shape measuring $7.25 \mu \times 3.15 \mu$. Macro-conidia were sickle-shaped mostly 3-5 septate and were sparingly formed. The isolate was identified as *Fusarium oxysporum* Schlecht by Dr. Booth, Commonwealth Mycological Institute, Kew, Surrey, England. This fungus disease is recorded for the first time in India.

The pathogenicity was proved by soil inoculation method (variety Ec. 68415). The sunflower plants

Detached Leaf Culture, an Efficient Technique for Production of Viable Sclerotia of *Sclerotium rolfsii* Sacc.

Production of sclerotia by *Sclerotium rolfsii* was best on detached leaves of its host *Polyanthes tuberosa* floated on 10% sucrose solution kept in dark and incubated at 20-25°C. Large number of sclerotia of uniform size were observed at the periphery of the colony within seven days. Sclerotial formation in Carrot Potato Agar (CPA) and Potato Dextrose Agar (PDA) slants took more than sixteen days. Besides, the germination level of sclerotia produced on detached leaves was 70-80% in comparison to 20% viability of those from PDA and CDA slants. Pathogenicity tests with sclerotia produced in dlc showed typical symptoms of the disease on *P. tuberosa* within two weeks.

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