

TABLE I

Survival of Spodoptera litura F. on different weeds and rice plant

Plant	Percent survival on	
	4th Day	10th Day
<i>Marsilea quadrifolia</i>	100	100
<i>Ammania bacifera</i>	100	100
<i>Eclipta alba</i>	100	100
<i>Echinochloa colonum</i>	30	0
<i>Leersia hexandra</i>	40	0
<i>Cyperus difformis</i>	20	0
<i>Oryza sativa</i> (Rice, T(N)1 Var.)	30	0

Number of 1st instar larvae caged—10.

Besides *Spodoptera litura*, there were two other species of insects viz., *Echinocnemus* sp. near *insubidus* Faust and *Echinocnemus* sp. (Coleoptera: Curculionidae) which were found feeding on *Marsilea* weed though less voraciously.

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TANDONELLA LEAF-SPOT: A NEW DISEASE OF BER IN PUNJAB

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THE cultivation of *ber* has attained a good deal of popularity among the cultivators of Punjab and other northern states of India. Recent surveys of *ber* plantations in Punjab have revealed the occurrence of a new hitherto unrecorded leaf spot disease in epiphytotic proportions resulting in premature defoliation and considerable loss in yield. Commercial cultivars like Umran, Ilaichi, Selected Safeda, Sabza-3 and Sabza-5 registered 70-80% disease incidence. The disease appeared on the undersurface of the leaves as circular to irregular, ash-grey spots with smooth to fringed margins, varying in size from 2-12 mm across with corresponding upper area turning light brown and necrotic.

Microscopic examination revealed the identity of the pathogen as *Tandonella zizyphi* Prasad and

Verma, based on the resemblance of morphological characters of synnemata, conidiophores and conidia. The pathogen was first named and described by Prasad and Verma¹ from Muzaffarpur (UP) on *Z. jujuba*. Since, then, no report is available on its occurrence on *ber* or any other host in India or elsewhere.

Pure culture of the pathogen was raised for the first time on potato dextrose agar medium. White-fluffy growth of the pathogen produced abundant identical conidia on conidiophores within one week at $25 \pm 1^\circ \text{C}$. For pathogenicity tests, conidial suspension prepared in distilled water (one slant/100 ml) sprayed on the leaves of selected branchlets with 20-25 leaves and covered with polythene bags containing a wet cotton swab to provide requisite humid conditions. Typical symptoms appeared within 8-12 days. Reisolations yielded the same fungus.

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INTERCEPTION OF TWO NEW FUNGI ON POTATO IN QUARANTINE

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EXOTIC tuber cultures of hybrid varieties evolved in different potato growing countries were imported for research work. The tubers were examined and subsequently grown in post-entry quarantine glasshouse in sterilized pots containing sterilized soil and were regularly examined during active plant growth. The produce of only healthy clones was released. Plants showing any disease symptom were destroyed at the site of examination. On some plants the occurrence of *Drechslera australiensis* (Bugnicourt) Subram. and Jain ex M. B. Ellis and *D. hawaiiensis* (Bugnicourt) Subram. and Jain ex. M. B. Ellis¹ was observed.

On tubers the symptoms were brown to reddish brown, irregular spots of 0.25 to 1 cm size. On stolons near soil surface it showed light brown spots. On leaves the spots were observed on petiole, mid-rib and adjacent veins on lower side. The spots were irregular black and elongate measuring 0.25 cm to 1 cm. Fungi were isolated on PDA and Czapek's media.

The colonies of *D. australiensis* (Bugnicourt) Subram. and Jain ex. M. B. Ellis a state of *Cochliobolus hawaiiensis* Alcorn. were effuse, grey to dark brown.

Hyphae were first pale and later became dark brown, smooth and septate measuring 2 to 4 μ thick. Conidiophores were flexuous, septate reddish brown upto 150 μ long. Generally the conidiophores were shorter measuring 3 to 7 μ thick. Conidia were straight elliptical or oblong rounded at the ends. Conidia were pale brown to mid-reddish brown in colour. Mostly the conidia were with 3 pseudosepta rarely with 4 or 5 pseudosepta measuring 13 to 40 μ (mostly 18-33 μ) long and 6 to 11 μ (mostly 8-10 μ) wide. The isolates were identified at CMI, Kew, England IMI Nos. 255462 (a) and 255464.

The colonies of *D. hawaiiensis* (Bugnicourt) Subram and Jain ex M. B. Ellis a state of *Cochliobolus hawaiiensis* Alcorn. were effuse, grey to dark blackish brown. Hyphae were pale to mid-brown smooth and septate measuring 1 to 3 μ thick. Conidiophores were flexuous septate pale to mid brown in colour measuring upto 120 μ long. Generally the conidiophores were shorter, measuring 2 to 7 μ thick. Conidia were straight, ellipsoidal oblong or cylindrical, rounded at the ends. Conidia were pale to mid-brown with 2 to 7 pseudosepta (mostly 5 septa), 12 to 37 μ (24.5 μ) \times 5 to 11 μ (8.2 μ). The culture was identified at CMI, Kew, England, IMI No. 259978. So far these two species have not been reported on potato.

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A NOTE ON THE OCCURRENCE OF *CYLINDROCLADIUM CLAVATUM* HODGES AND MAY IN LESIONS CAUSED BY *RADOPHOLUS SIMILIS* ON COCONUT ROOTS

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ASSOCIATION of the fungus *Cylindrocladium* sp. with coconut palm, *Cocos nucifera* L. was reported by Batista¹. Coleman² reported *Cylindrocladium scoparium* Morgan from root and bole region of coconut. Sosamma and Koshy³ reported the occurrence of *Cylindrocarpon effusum* Bugn. and *C. lucidum*

Booth from lesions caused by *Radopholus similis* (Cobb) Thorne in coconut roots. Newly formed lesions on creamy white portion of the main roots collected from palms at C.P.C.R.I. farm, Kayangulam were selected for isolations. Small lesions with very little of surrounding cortical tissue were scooped out with a blade and the surface sterilised with 0.1% mercuric chloride for 1 min followed by three washings in sterile water and transferred to the potato dextrose agar medium. Ten per cent of the isolations site of examination. On some plants the occurrence of *Cylindrocladium*. The fungus was identified as *Cylindrocladium clavatum* Hodges and May (IMI-266240). Diamonde *et al.*⁴ reported enhancement of *Cylindrocladium crotalariae* root rot by *Meloidogyne arenaria* on a peanut, *Arachis hypogae* L. cultivar resistant to both pathogens. Physiological changes and root wounding are considered important in the interaction involving *M. hapla* or *Macroposthonia ornata* and *C. crotalariae* on pea nut (Diamonde and Beute³).

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RECORD OF *CHRYSOPA* (APERTOCHRYSA) *CRASSINERVIS* ESBEN-PETERSON FROM INDIA

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DURING November, 1981, a few stalked eggs of *Chrysopa* was noticed on a castor plant in the Bapatla-Chirala tobacco nurseries of Andhra Pradesh. A small culture of the same was identified and confirmed by C.I.E. London. Earlier studies indicate that in India,