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SHORT SCIENTIFIC NOTES

New Host Records of the Root-Knot Nematode, *Meloidogyne incognita*

The present communication gives the list of certain new hosts of the root-knot nematode, *Meloidogyne incognita* (Kofoid and White, 1919) Chitwood, 1949, which have not been reported earlier¹⁻⁸. The specific identification was done by the close examination of the perineal patterns of mature females, taken out from the galled tissues of the roots. Hot acid fuchsin (0.01%) and lactophenol were used as staining and mounting materials respectively. The root infection based on : + = light, ++ = moderate, +++ = heavy, ++++ = severe and size of root-galls ranging from small (S), medium (M) to large (L) were also noted.

New Host Records: *Cassia tora* L. (+, S); *Cucumis melo* var. *agrestis* Naud. (++++, L); *Cyperus rotundus* L. (+, S); *Digitaria cruciata* (Nees.) A. Camus, (++, SM); *Gomphrena globosa* L. (+, S); *Mukia maderaspatana* Roem. (++++, L).

New Reports from India: *Coronopus didymus* (L.) Sm. (+, S); *Vitis vinifera* L. (++, SM).

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Chemical Races in Variyali Sowa

Three distinct varieties of India dill fruits, Ghoda (mericarp) Vizag (cremocarp and mericarp) and Variyali sowa (cremocarp) were reported by Shah *et al.*^{1,2}. Out of these varieties Vizag sowa fruits were completely free from dillapiole but was still identified as different from *Anethum graveolens* on the basis of their flavanoid pattern³. The Variyali sowa fruits reported were strongly convex cremocarps with narrow wings and dark brown in colour. This variety on cultivation flowered one month earlier than the other two sowa varieties. Gas chromatographic analysis of the oil from this variety showed dihydrocarvone—43%, carvone—21%, limonene—20% and dillapiole—13%. Thus the presence of double the amount of dihydrocarvone than carvone was reported for the first time.

Another variety of Variyali sowa was received from the market of south Gujarat which is paler in colour and with broader wings. It yielded higher percentage of oil and on cultivation did not show early flowering like the dark variety. This is reported here as pale Variyali sowa containing higher percentage of carvone than dihydrocarvone.

TABLE I

Characters	Dark Variyali sowa	Pale Variyali sowa
Colour	Dark brown with yellowish narrow wings	Pale brown with yellowish broader wings
Shape	Ovate oblong, dorsally strongly convex cremocarp with or without pedicel	Ovoid lanceolate slightly dorsally compressed cremocarp with or without pedicel
Breadth of wings	0.1 to 0.2 mm	0.2 to 0.4 mm
Wt. of 100 fruits	600 to 700 mg	650 to 730 mg
Percentage of oil obtained on 5 hr distillation	2.07	4.50
Refractive index at 25° C	1.485	1.490
Sp. gravity at 25° C	0.9440	0.9271
Optical rotation $[\alpha]_D$	26.26	69.30
Limonene % v/v	24	39
Dihydrocarvone % v/v	35	5
Carvone % v/v	23	42
Dillapiole % v/v	18	14

Thus these two varieties of Variyali sowa can easily be distinguished with carvone : dihydrocarvone ratio, which is less than 1 in dark variety, while more than 1 in the pale variety. Important morphological characters of these two varieties and composition of the oils obtained by 5 hr distillation is summarised in Table I. No microscopic difference was noted.

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A New Host Record for *Curvularia lunata* (Wakker) Boedijn

While surveying the pathogenic fungi of Distt. Jaunpur (U.P.) a leaf-spot disease of *Ipomoea fistulosa* was observed by the authors in August 1974. The leaf-spots are minute, oval, light brown, 1-2.5 mm in diameter and distributed throughout the lamina.

Microscopic examination of diseased leaves revealed the presence of *Curvularia*. The fungus was isolated on sterile PDA and identified as

Curvularia lunata (Wakker) Boedijn. The colony colour was dark black and the growth was luxuriant on both PDA and leaf extract agar media.

Pathogenicity tests were conducted on plants of *Ipomoea fistulosa* grown in Botanical Garden of St. Andrew's College. Four to seven days old spore-cum-mycelial suspension of the fungus was atomised on healthy leaves of the host. Symptoms developed after 6 days of inoculation. On re-isolation from the artificially infected leaf-spots the same fungus was obtained.

In the literature so far available, there is no previous record of *Curvularia lunata* on *Ipomoea fistulosa*. Therefore the present note records *Ipomoea fistulosa* as a new host for *Curvularia lunata*.

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