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## ONION A NEW HOST OF *HETERODERA MOTHI* FROM PAKISTAN

by

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In February, 1983 an onion field near Islamabad was found to be heavily infested with a cyst nematode. Bulbs, stems and roots alongwith soil samples were collected. Soil samples were processed by Cobb's sieving and gravity method and cysts were collected on a 100 mesh screen; cysts were abundant (40-50/100g of soil). Cysts were also collected from the roots. Examination by a stereoscopic microscope showed that the cysts were light to dark brown and lemon shaped, with protruding neck and vulva and were identified as *Heterodera mothi* Abrar and Hussain, 1965. Golden's (1978) method was used for preparation of the cyst cone. Juveniles were mounted in  $3^{\circ_0}$  formaldehyde for measurement. The external pattern of the cyst cuticle was clearly zig-zag. Prominent dark brown bullae were present in the vulval cone region and the fenestra on the top cone was of the ambifenestrate type.

The second stage juveniles were cylindrical, elongate tapering at both ends and measuring L = 0.41-0.47 mm; a = 26-29; b = 3-3.4; c = 5.5-6.5; stylet = 17-18  $\mu$ m, lateral field consisting of 3 lines, stylet well developed with rounded knobs.

*Heterodera mothi* belong to the « schachtii » group and to date has been reported on sugarcane and egg plant (Maqbool, 1980). Onion is a new host record for Pakistan.

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## LITERATURE CITED

- ABRAR A. M. and HUSSAIN A. I., 1965 Heterodera mothi n. sp. (Tylenchida: Heteroderidae) parasitising Cyperus rotundus L. at Aligarh, U.P. India. Nematologica, 11: 167-172.
- GOLDEN A. M., 1978 Printed notes on methodology. Nematology Lab. PPI, USDA, Beltsville, Maryland, U.S.A., pp. 2.
- MAQBOOL M. A., 1981 Occurrence of root-knot and cyst nematodes in Pakistan. Nematol. Medit., 9: 211-212.

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