MYROTHECIUM ROT OF TOMATO

A STORAGE rot of tomato fruits, caused by a species of *Myrothecium*, was observed in the local market in November, 1962. Preston[1] reported the occurrence of this fungus on the stems of tomato plants from England. Subsequently Stevens and McColloch[2] reported that it caused a fruit rot of tomato in United States. According to Thirumalachar and Misra[3] it was also responsible for a leaf-spot of tomato in Bihar, India. There is no previous record from India about a fruit rot of tomato by this organism and thus it appears to be the first record of this disease from our country.

The disease first appears in the form of a small nearly circular olive grey patch, the spot appears slightly sunken from the healthy portion of the fruit. The diseased area gradually increases and frequently it gets covered with a copious growth of concentric circles of white wooly mycelium of *Myrothecium*. This is followed by dark green zone of sporodochia with viscid spore mass. The junction between the diseased and healthy tissue remains clearly defined (*vide* Fig. 1).

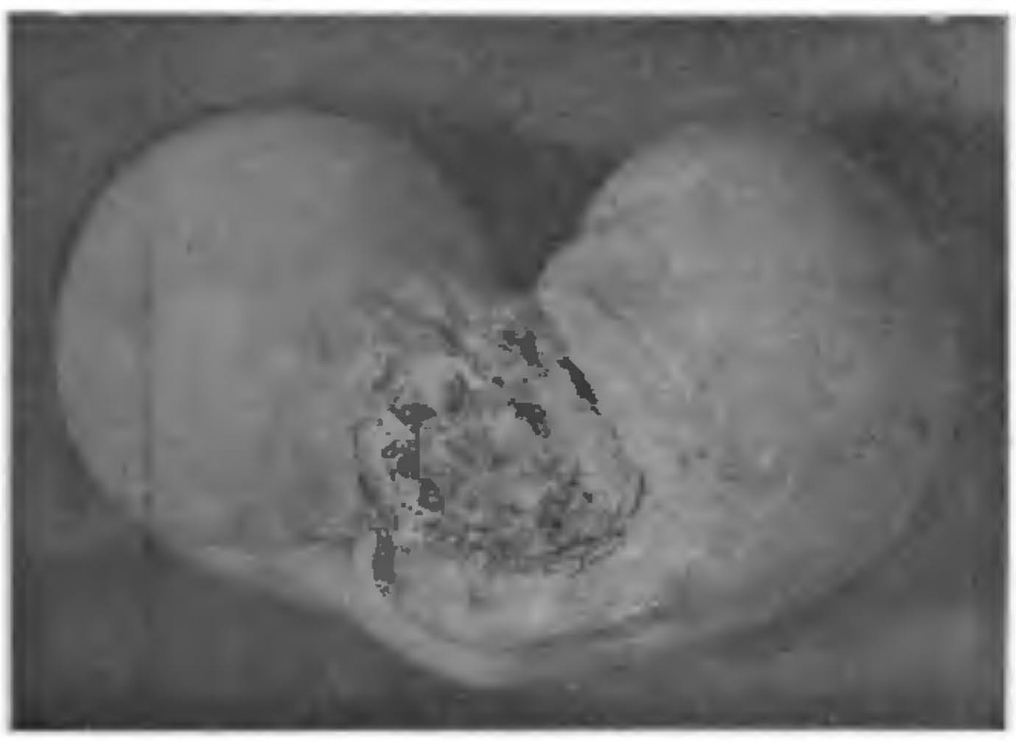

FIG. 1.

Pathogenic nature of the fungus was confirmed by inoculating healthy tomato fruits either by wounding or by contact with agar inocula or by spraying spore suspension. Every fruit was infected when the fungus was inoculated after inflicting slightest injury to the host but only 40% infection was observed on unwounded fruits. In general the fruits rotted completely within 8-9 days.

Morphology.—Fructifications or, the sporodochia are sessile, usually very close to each other and usually they become confluent into larger masses, dark green in colour, setæ are absent. They arise from pseudoparenchymatous stroma consisting of intertwining conidiophores which are once or twice branched, septate olivaceous green in colour arising from closely appressed layer of phialides. Conidia are cylindrical to elliptical, one-celled with rounded ends, hyaline when young changing to olive green at maturity. They measure 6–10 × 2-3 μ (Av. 9 × 2·5 μ). Collectively the spores appear as dark green gelatinous mass.

On the basis of the above morphological characters the organism is specified as *Myrothecium roridum* Tode ex Fries. The culture has been deposited at the Commonwealth Mycological Institute, Kew, Surrey, England, as No. 96857 and at the Botanical Laboratory, Allahabad University.

We are grateful to Dr. Sutton of Commonwealth Mycological Institute, Kew, England, for confirming the identity of the fungus and to Drs. K. S. Bilgrami and Sudhir Chandra for their help.

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Allahabad, India, *March* 25, 1963.

1. Preston, N. C., "Observations on the genus *Myrothecium* Tode. I. The three classic species," *Trans. Bri. Mycol. Soc.*, 1943, **26**, 158.
*2. Stevens, J. A. and McColloch, L. P., "*Myrothecium* as a tomato fruit rot organism," *Plant. Dis. Reptr.*, 1947, **31**, 147.
3. Thirumalachar, M. J. and Mishra, J. N., "Some diseases of economic plants in Bihar, India," *F.A.O. Pl. Prot. Bull*, 1953, **2** (1), 11.

* Originals not consulted.