GAU Res. J. 1985, 11 (1) : 59-60

Occurrence of Stem End Rot of Mango Fruit in Gujarat

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During the fruit season of 1981 Langra mangoes in Horticultural orchard were found rotting from the stem end. Incidence was severe which necessiated the present study.

Symptoms: Skin of the affected fruits near the stem end appeared light brown and later turned olive-brown to black. The pulp below the epidermis turned brown and was somewhat softer than the healthy flesh. At advance stage of infection, fruits not only shrunk but also became quite dark brown to black and fell on ground. Entire fruit was rotted in advanced stage.

Isolation and Pathogenicity: In order to study pathogenicity of the causal entity, isolation was done from the diseased fruits. Fungus was isolated by planting surface sterilized pieces on P.D.A. The culture was purified by ingle spore isolation and maintained on .D.A.

For pathogenicity test, healthy its of uniform size were selected on ngo trees. Fruits were washed with er and then surface sterilized by hol and the following techniques employed.

Without Injury: A small pad of otton was aseptically dipped in spore uspension prepared previously from 10 days old pure culture, and was placed near the stem end of fruit.

(2) **With Injury:** The fruits were injured by pin on the stem end and below the stem end.

Thus injured fruits were inoculated as mentioned above. Fruits without inoculation served as check. All the fruits were covered with perforated plastic bags. After 10 days of inoculation, fruits started showing the typical symptoms of rotting. Injured fruits comparatively showed more advanced symptoms than the uninjured one (Fig. 1). Fruits

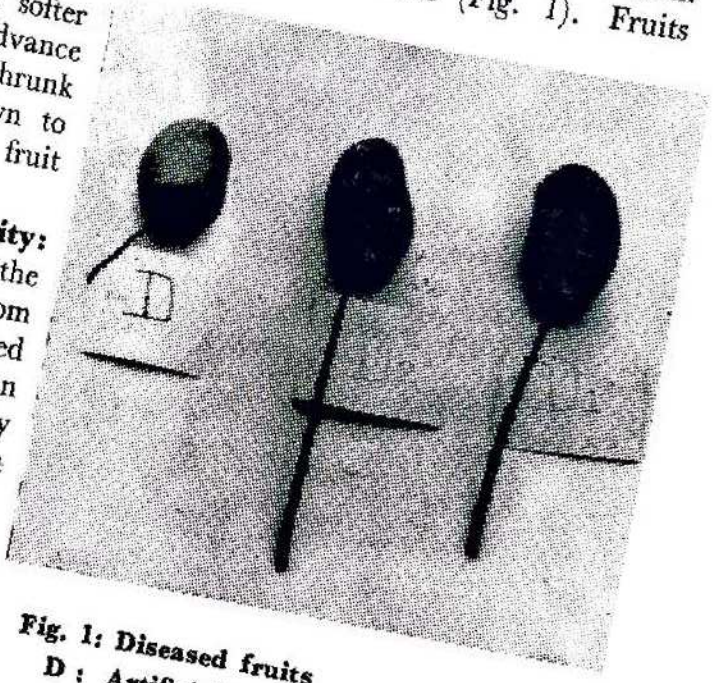

Fig. 1: Diseased fruits
D : Artificially inoculated without injury.
D_1: Artificially inoculated with injury on stem end.
D_2: Artificially inoculated with injury on below stem end.

served as check remained quite healthy (Fig. 2). On reisolation, the same fungus was obtained.

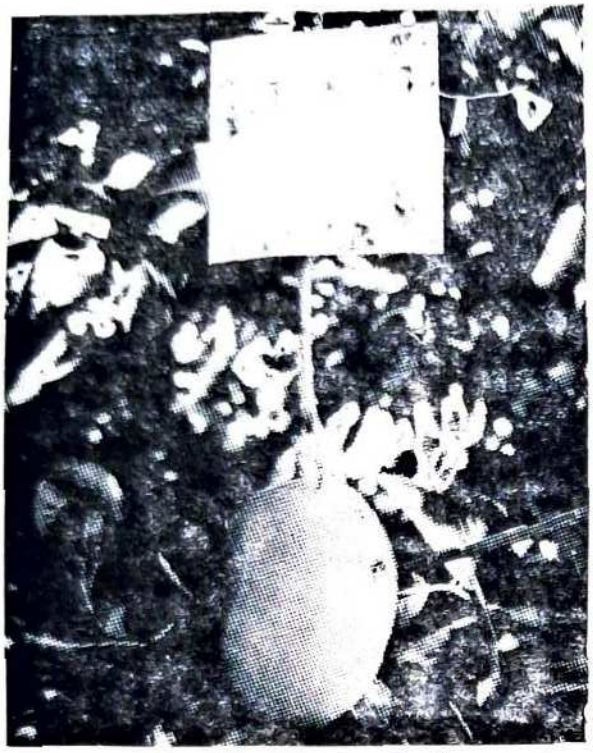

Fig. 2: Healthy fruit

Causal entity: Fungus grew well on P.D.A. with initially whitish growth turning into brownish later on. Conidiophores were erect and smooth. Conidia had been produced on sterigmata, were round, smooth and appeared yellowish in mass (Fig. 3). Fungus was sent to Commonwealth Mycological Institute, Kew, Surrey, England for identification and was identified as *Aspergillus terreus* Thom. Occurrence of

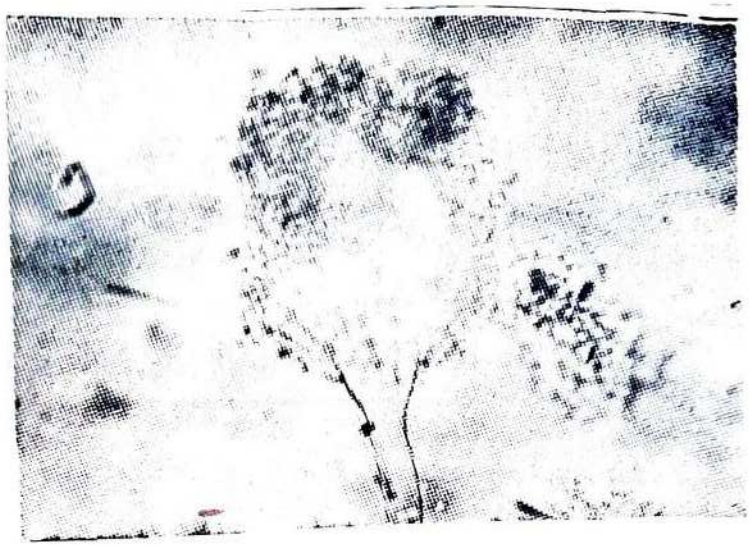

Fig. 3: Single head showing vesicle, sterigmata, conidia and conidiophore.

Aspergillus terreus causing, stem end rot of mango fruit has been unreported from Gujarat, though it had been reported on mango fruit of variety Langara from Punjab.*

ACKNOWLEDGEMENTS

Authors are grateful to Dr. M. V. Desai, Ex-Director, G.A.U., Anand Campus for critically reviewing the manuscript and to Dr. Anthony Johnston, Director, CMI, Kew-Surrey, England for confirming the identity of the fungus.

(Received on 30th Nov. 1983)

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