

Short Communications

Host Range Studies of *Myrothecium roridum* Causing Leaf Spot of Bitter Gourd

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The leaf spot of bitter gourd (*Momordica charantia* L.) caused by *Myrothecium roridum* Tode ex Fr. has been observed causing considerable damage to crops during last few years in Junagadh area. The disease is of considerable economic importance because it occurs on a variety of economic crops and does great damage to the foliage and other plant parts resulting in loss of the production.

It appears as small circular, pin-head size, tan coloured spots with violet to brown margin surrounded by a zone of translucent area on bitter gourd. Under favourable conditions of moist atmosphere and cloudy weather these spots enlarge upto 8 mm. in a week, may coalesce and then the entire leaf dries up. Fruiting structures are formed on both the sides of the leaves. The fungus also causes fruit rot of bitter gourd.

The inciting fungus was isolated on potato dextrose agar (PDA) and the

pathogenisity test on bitter gourd was successfully conducted. The plants of other crops listed in Table-1 were also inoculated with the fungus to know whether it causes the disease on these plants or not.

Twenty plants of each of the crop were raised in a sterilized soil in 9" size pots keeping one plant in each. When the plants attained the age of 30 days, ten plants of each of the test crops were inoculated by spraying the spore suspension and ten were sprayed with only distilled sterile water to serve as a check. All pots were kept under moist chamber. The observations of disease incidence were recorded upto fifteen days after inoculation.

Observations of disease incidence on these plants (Table-1) revealed that out of twentytwo plant species belonging to different families viz. Cucurbitaceae, Leguminosae, Malvaceae, Solanaceae, Compositae, Tiliaceae and Euphorbiaceae, all test plants including bitter gourd but except groundnut were found to be infected with the fungus. These hosts except *Coccinia indica*, *Cajanus cajan*, *Helianthus annuus* and *Cap-sicum annum* were previously reported in the literature as the hosts of the fungus (Mc Intosh, 1949, Thirumala-char and

TABLE 1

List of hosts tested for leaf spot disease caused by *M. roridum* in the host range studies.

Name of the plant		No. of plants ino- culated	No. of plants in- fected
1		2	3
Cucurbitaceae			
Bitter gourd	(<i>Momordica charantia</i> L.)	10	10
Ridge gourd	(<i>Luffa acutangula</i> L.)	10	10
Smooth gourd	(<i>Luffa cylindrica</i> L.)	10	10
Small gourd	(<i>Coccinia indica</i> W & A.)	10	10
Bottle gourd	(<i>Legenaria siceraria</i> Standl.)	10	10
Cucumber	(<i>Cucumis sativus</i> L.)	10	10
Leguminosae			
Cluster bean	(<i>Cyamopsis tetragonoloba</i> L.)	10	10
Bean	(<i>Dolichos lablab</i> L.)	10	10
Sosybean	(<i>Glycine Max</i> Merr.)	10	10
Mung	(<i>Phaseolus aureas</i> Roxo.)	10	10
Urid	(<i>Phaseolus mungo</i>)	10	10
Cowpea	(<i>Vigna sinensis</i> Endl.)	10	10
Tur (Arhar)	(<i>Cajanus cajan</i> (L) Millsp.)	10	10
Groundnut	(<i>Arachis hypogaea</i> L.)	10	No infection on any plant.
Malvaceae			
Cotton H4	(<i>Gossypium hirsutum</i> L.)	10	10
Cotton Co2	(<i>Gossypium hirsutum</i> L.)	10	10
Lady's finger (Bhindi)	(<i>Hibiscus esculentus</i> L.)	10	10
Solanaceae			
Tomato	(<i>Lycopersicum esculentum</i> L.)	10	10
Brinjal	(<i>Solanum melongena</i>)	10	10
Chilli	(<i>Capsicum annum</i> L.)	10	10
Compositae			
Sunflower	(<i>Helianthus annus</i> L.)	10	10
Tiliaceae			
Jute	(<i>Corchorus cepsulentus</i> L.)	10	10
Euphorbeaceae			
Castor	(<i>Ricinus communis</i> L.)	10	10
Check (All hosts)		10 (of each host)	Not infected

Misra, 1953; Munjal, 1960; Ramnath *et al.* 1966; Chauhan and Suryanarayan, 1972). These four crops are hitherto added in the list of the hosts of *M. roridum*.

(Received on 6th Dec. 1982)

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