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Two New Leaf Spot Disease of Bael (*Aegle marmelos* Correa.) From Uttar Pradesh.

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Aegle marmelos Correa is one of the most utilitarian medicinal plants of India; it grows under adverse agro climatic conditions. It has capacity to adapt successfully to a wide range of habitat from arid, semiarid to mesophytic conditions and a wide temperature tolerance (from -7^{0}C to 48^{0}C). The importance of *Aegle marmelos* lies in its curative properties, which make the tree one of the most useful medicinal plants of India.

Myrothecium roridum This species is responsible for causing leaf spot disease in *Aegle marmelos*, this is first report from Uttar Pradesh. The symptoms were found on leaves as small, circular in shape which are brown in colour but later on these spots enlarges and cover the more area. Chlorosis around the lesions may be seen and concentric rings appears in the middle of the spot are characteristic symptoms. Disease symptoms recorded first during rainy season (July- August), 15-20 days after symptom production concentric rings are produced. Characteristic symptoms of this disease are formation of shot hole due to shedding of necrotic tissues of the leaves. In severe condition number and size of lesions increases, sporodochia may be seen on older lesions which are black in colour (Fig. 1).

Fungus produces creamy white colonies on PDA which are 1.5 cm diameter after 3 days at 25^{0} 2^{0}C. Concentric pattern of sporodochia of *Myrothecium roridum* which are black in colour as seen in fig. 2 formed on PDA after 10-15 days of inoculation. Conidia were rod shaped (Fig.2). Pathogenicity were tested, using *M. roridum* culture isolated from bael leaves and inoculated on healthy seedlings. The inoculated plants produced symptoms within 7-10 days period. Symptoms produced on inoculated plants are similar to those observed in the field. Cultural characters of the test organism which were reisolated and grow on PDA were similar to the previous culture.

Fig. 1: Leaf spot on *Aegle marmelos* caused by *Myrothecium roridum*

Fig. 2: *Myrothecium roridum* mycelium, sporodochia and conidia

Fusarium pallidoroseum (Cooke) Sacc. The fungus *Fusarium pallidoroseum* causing leaf spot/ blight on *Aegle marmelos* has been reported first time from India. The disease appeared during post rainy season (September) as irregular pustules which were brown in colour, increased very fast and covered the most of the leaf area, affected leaves become dry and fall off (Fig. 3). Much vegetative loss have been recorded in the nursery with this disease. The review of literature showed that it is a new record on *Aegle marmelos* from India.

Fusarium pallidoroseum produce smooth and creamy white colony. The fungus produces both macro and micro conidia which are hyaline, septate and ends are also hook shaped. Mycelium are thin and septate (Fig. 4). Macro conidia were produced from phialides on unbranched or branched conidiophpres. Macro conidia borne in sporodochia were curved, possess a foot cell, 3-5 septate. Micro conidia are single celled, smooth, hyaline, ovoid to cylindrical.

Fig.3: Leaf spot and dieback caused by *Fusarium pallidoroseum*

Fig.4: Mycelium and conidia of *Fusarium pallidoroseum*

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