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Varietal Screening of Watermelon against Powdery Mildew Disease and Its Management

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Abstract : Except for few scattered cases, powdery mildew disease was not a big problem for watermelon in the past but with the outbreaks of its pathotypes, races 1W and 2W, this disease becomes a serious issue all around the globe. The severe outbreak of this disease also increased the rate of fungicide application for its proper management. Twelve varieties of watermelon were screened in Research Area of Department of Plant pathology, University of Agriculture, Faisalabad to check the incidence of powdery mildew disease. Disease inoculum was prepared and applied with the help of foliar spray method. Fungicides and plants extracts were also applied after the disease incidence. Percentage leaf surface area diseased was assessed visually with a modified Horsfall-Barratt scale. The results of the experiment revealed that among all varieties, WT2257 and Zcugma F1 were highly resistant showing less than 5% disease incidence while Anar Kali and Sugar baby were highly susceptible with disease incidence of more than 65%. Among botanicals neem extract gave best results with disease incidence of less than 20%. Besides neem, all other botanicals also gave significant control of powdery mildew disease than the untreated check. In case of fungicides, Gemstar showed least disease incidence i.e. < 10%, however besides control maximum disease incidence was observed in Curzate (> 30%).

Keywords : botanicals, fungicides, pathotypes, powdery mildew
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