

Research Article**Geographical Distribution of Rapeseed-Mustard Powdery Mildew Disease in India****PD Meena, Naresh Mehta, PK Rai and GS Saharan***ICAR-Directorate of Rapeseed-Mustard Research, Bharatpur-321 303 (Rajasthan) India; ¹Department of Plant Pathology, CCS Haryana Agricultural University, Hisar-125 004 Haryana, India; Email: pdmeena@gmail.com***Abstract**

Powdery mildew of rapeseed-mustard caused by *Erysiphe cruciferarum* has become epidemic disease in India with the rise in temperature during the last two decades of twenty first century. The disease has distributed in 17 states of India with more than (\geq) 10 per cent intensity in the areas of states viz., Assam (15%), Bihar (15.5%), Chhattisgarh (25.5%), Delhi (20.0%), Gujarat (57.5%), Haryana (20.6%), Jammu & Kashmir (10%), Jharkhand (20%), MP (21.5%), Maharashtra (38.7%), Manipur (39.4%), Punjab (30.8%), Rajasthan (22.1%), Tamil Nadu (35%), UP (30.1%), and Uttarakhand (24.5%). All the cultivated *Brassica* species showed more than 9 per cent powdery mildew severity with highest severity of 43.2 per cent on *B. juncea* followed by 28 per cent on *B. rapa* which are widely cultivated in India to meet the edible oil demand of the country. The disease affects negatively the yield components of rapeseed-mustard crops viz., number of siliquae/plant, siliquae length, seeds/ siliquae, 1000-seed weight, total yield, and per cent oil content. Yield losses from 10-90 per cent with reduction in 6.47 per cent oil content have been estimated from different *Brassic*as. Host range of the pathogen is very large with cultivated oil yielding (6) and vegetable (1) crops along with 6 wild crucifers commonly present amongst *Brassica* crops under field conditions. Sources of resistance/ tolerance/slow mildewing genotypes were identified to breed powdery mildew disease resistance cultivars of rapeseed-mustard in India. The pathogen is able to complete its anamorph (asexual), and teleomorph (sexual) both stages on *B. juncea* in India.

Key words: Distribution, incidence and severity, oilseed *Brassic*as, powdery mildew

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