Research Article

Survey, Symptomatology and Management of Downy Mildew in Isabgol (*Plantago ovata* Forsk.)

Praveen Molekar¹, Pokhar Rawal¹, Pinki Sharma¹, JP Tetarwal¹, D Jain² and A Joshi²

¹Department of Plant Pathology, ²Molecular Biology and Biotechnology, Rajasthan College of Agriculture, MPUAT, Udaipur–313 001 Rajasthan. Email.praveenmolekar5350@gmail.com

Abstract

Isabgol (*Plantago ovata* Forsk.) is an important medicinal herb. It belongs to family *Plantaginaceae*. An increase in downy mildew disease severity was found directly correlated with reduction in seed yield. Systemic infection of downy mildew showed chlorotic white patches covered with profuse ashy-white frost like fungal growth on upper and lower leaf surfaces and later turned necrotic with the production of oospore. Pale brown local lesions appeared on upper leaf surface with fungal growth on lower surface. Treatment comprising seed dressing with metalaxyl 35 SD @ 8g kg⁻¹ followed by three foliar sprays first at initiation of disease, second and third at 15 days interval with methiram 44% + dimethomorph 9%-53 WG @ 0.2 per cent reduced downy mildew disease severity (12.36%) with maximum disease control of 83.80 per cent over untreated control. The seed yield was 12.66 q ha⁻¹ and swelling factor 11.25 ccg⁻¹. Total sixty seven genotypes and local cultivars of isabgol were screened against downy mildew. It reflected that 21 genotypes were resistant, 19 moderately resistant, 14 moderately susceptible and remaining 13 with susceptible reactions to downy mildew.

Key words: Downy mildew, genotypes, Isabgol (*Plantago ovata* Forsk.), management, systemic and non-systemic symptoms

Citation: Molekar P, Rawal P, Sharma Pinki, Taterwal JP, Jain D and Joshi A. 2017. Survey, symptomatology and management of downy mildew in Isabgol (*Plantago ovata* Forsk.). *J Mycol Pl Pathol* 47 (1): 47-55.