

Research Article

Status of Alternaria Leaf Blight in Cotton and its Fungicidal Management

Dhaval B Patel¹, ML Tetarwal^{2,3}, Kajal S Pandya¹, Jyotika Purohit¹, RL Meena³ and Anirudha Chattopadhyay⁴

¹Department of Plant Pathology, CP College of Agriculture, SD Agricultural University, Sardarkrushinagar, Gujarat, 385 506; ²Krishi Vigyan Kendra, Bamanwara, Raniwada (Sanchole), Agriculture University Jodhpur, Rajasthan; ³Department of Plant Pathology, College of Agriculture, S. D Agricultural University, Tharad; ⁴Pulses Research Station, SD Agricultural University, Sardarkrushinagar, Gujarat, 385 506; E-Mail: anirudhbhu@sdau.edu.in, mohantetarwal@gmail.com

Abstract

Surveys were carried out in the three districts of North Gujarat, viz., Aravalli, Sabarkantha, and Banaskantha to investigate the severity of Alternaria leaf blight in cotton. The disease was found to be quite severe and with a mean PDI of 23.77, the Banaskantha district had the highest disease intensity of Alternaria leaf spot disease; in contrast, the average disease intensity in the Aravalli and Sabarkantha districts was 17.94 and 20.44 per cent, respectively. Further, to manage the disease, research was conducted to evaluate the *in vitro* and *in planta* bioefficacy of fungicides against *Alternaria macrospora* of cotton at the Department of Plant Pathology and Alternaria leaf blight in cotton at Agronomy Instructional farm, S D Agricultural University Sardarkrushinagar, Gujarat, respectively. Under *in vitro* condition, among five systemic fungicides, Carbendazim showed the highest per cent growth inhibition, while Propiconazole showed the lowest. Among different non-systemic fungicides, Mancozeb inhibited the radial growth of *A. macrospora* the most, while Chlorothalonil inhibited the least. Further, among five combined fungicides, Tebuconazole 50% + Trifloxystrobin 25 WG inhibited the most growth and Captan 70% + Hexaconazole 50 WP inhibited the least. Thereafter, the bio-efficacy of the two most effective fungicides from each group (two systemic, two non-systemic, and two combined fungicides) was tested under field conditions, and the mean disease intensity ranged from 12.28 to 36.43 per cent, with the lowest being Tebuconazole 50% + Trifloxystrobin 25 WG and the highest being untreated control. The highest percentage of illness control (66.29%).

Key words: *Alternaria macrospora*, cotton, fungicides

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