

Research Article

Management of Alternaria Leaf Blight of Sunflower by Using Bioagent and Fungicides

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Abstract

A field experiment was conducted for three years from *Kharif* 2014 to 2016 for management of *Alternaria* leaf blight of sunflower with combination of *Pseudomonas fluorescens* and different fungicides. It was conducted in RBD design with 6 treatments and 4 replications by using KBSH-44 (susceptible check) hybrid. Per cent disease index was calculated for the disease severity at 15 days after 2nd spray. Among treatments imposed the treatment T₃ (Seed treatment with *P. fluorescens* @10 g/ kg followed by spray of propiconazole @ 0.1% at 45 days after sowing and *P. fluorescens* @1% at 60 days after sowing) has recorded less disease with higher yield. The same treatment also recorded benefit cost ratio of 1.8. It is followed by the treatment T₂ (seed treatment with *P. fluorescens* @10 g/kg followed by spray of hexaconazole @0.2% at 45 days after sowing and *P. fluorescens* @1% at 60 days after sowing) has recorded B:C ratio of 1.63. Among all the treatments the treatment T₁ (seed treatment with *P. fluorescens* @ 10 g/kg followed by *P. fluorescens* @1% at 45 and 60 days after sowing) has recorded more PDI, lesser yields and non significant with control plot. Hence, for integrated disease management of *Alternaria* leaf spot, seed treatment with *P. fluorescens* @10g/kg seed followed by one spray of propiconazole @0.1% and another spray of *P. fluorescens* @1% was recommended.

Key words: *Alternaria* leaf blight management, bio priming, fungicides, *Pseudomonas*, sunflower

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