

Research Article

Unleashing Defense Inducers to Combat Alternaria Blight in Sunflower

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Abstract

Alternaria blight disease has become a major constraint in cultivation of sunflower inflicting significant yield losses. Defense inducers were tested to evaluate their effectiveness against Alternaria blight pathogen, *Alternaria helianthi* under *in vitro* conditions. *In vitro* evaluation of defense inducers revealed that maximum inhibition of *A. helianthi* was achieved in salicylic acid (43.79%) at 200 ppm followed by monopotassium phosphate (40.34%) at 200 ppm. The defense inducers that demonstrated high inhibition against *A. helianthi* under *in vitro* were tested for their effectiveness against Alternaria blight disease in field. Seed treatment followed by foliar spray of salicylic acid at 100 ppm showed least disease severity (23.33%) at 50 per cent flowering with higher yield (2421 kg ha⁻¹) which was on par with seed treatment followed by foliar spray of salicylic acid at 50 ppm with disease severity of 23.33 per cent at 50 per cent flowering and seed yield of 2397 Kg ha⁻¹. The current study indicated the potential of defense inducers for the managing Alternaria blight in sunflower.

Key words: Alternaria blight, defense inducers, salicylic acid

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