

Research Article

Evaluation of New Generation Fungicidal Molecules for the Management of Sheath Blight (*Rhizoctonia solani* Kuhn) of Rice

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Abstract

A number of new and commercially available fungicides were evaluated against sheath blight of rice at Regional Research and Technology Transfer Station, Chiplima, Sambalpur, Odisha. Under *in vitro*, 100 per cent inhibition of mycelial growth of *Rhizoctonia solani* was observed with the fungicide (Trifloxystrobin + Tebuconazole) at 200 ppm concentration. Besides, it also had the lowest ED_{50} value of $3.19 \mu\text{g ml}^{-1}$. Under *in vivo*, the pooled data of two consecutive *kharif* season indicated that, all the fungicides were effective in controlling the disease as compared to control but three spraying with (Trifloxystrobin + Tebuconazole) @ 0.4 g l^{-1} at 15 days interval resulted in least sheath blight disease severity (5.0% PDI) as compared to untreated control (41.85% PDI). It was at par with the standard fungicide Propiconazole @ 1 ml l^{-1} (6.11 % PDI) with the highest yield of 51.9 q ha^{-1} .

Key words: Fungicides, rice, sheath blight

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