

PROMISING FUNGICIDES FOR THE MANAGEMENT OF SHEATH BLIGHT OF RICE

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ABSTRACT

*Sheath blight is a major disease of rice that can cause economic yield loss under favourable environmental conditions. For the management of sheath blight, application of fungicides is one of the effective strategies. Systematic evaluation of commercially available fungicides from time to time is essential for evolving recommendations on effective chemical fungicides. Six new fungicides were tested against sheath blight under in vitro and field conditions. The fungicides tested were kresoxym methyl 44.3 SC (0.5ml l⁻¹), penicuron 250 SC (1.5ml l⁻¹), fluzilazole 40 EC (0.5ml l⁻¹), iprodione + carbendazim 50 WP (1.5g l⁻¹), tebuconazole + trifloxystrobin 75WG (0.4g l⁻¹) and tebuconazole 250 EC (2ml l⁻¹) in comparison with recommended fungicide hexaconazole 5 EC (2ml l⁻¹) as standard check and an untreated control. Under in vitro conditions all the fungicides tested were inhibitory to *R. solani* compared to control. Tebuconazole + trifloxystrobin 75 WG, tebuconazole 250 EC, iprodione + carbendazim 50 WP and fluzilazole 40 EC were statistically on par with each other and with standard check fungicide hexaconazole 5 EC in inhibiting *R. solani* with complete inhibition (100 %). This was followed by kresoxim methyl (67.79%) and penicuron (54.39%). Field studies were conducted to evaluate these fungicides against sheath blight. The systemic fungicides tebuconazole + trifloxystrobin 75 WG (0.4 g l⁻¹), tebuconazole 250 EC (1.5ml l⁻¹), fluzilazole 40 EC (0.5ml l⁻¹), and contact fungicide penicuron 250 SC (1.5ml l⁻¹) were equally effective as standard check fungicide hexaconazole 5 EC (2ml l⁻¹) in reducing sheath blight severity and improving yield. These fungicides can be effectively utilized for the management of sheath blight of rice.*

KEYWORDS: *Sheath Blight, Rice, Fungicides, Rhizoctonia Solani*

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