

Research Article

Evaluation of Different Integrated Disease Management Modules Against *Rhizoctonia solani* Causing Sheath Blight Rice in Western Plain Zone of Uttar Pradesh

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Abstract

Rice is a staple food for human being, all over the world particularly in Asia, America, and parts of Africa. India is the second largest producer and consumer of rice at global level. Sheath blight caused by *Rhizoctonia solani* Kuhn (*Thanetophorus cucumeris* (Frank) Donk) is at current one of the most serious disease of rice. The present study was undertaken to formulate a appropriate management practice for sheath blight in rice in general and basmati rice in particular. Out of 9 IDM modules tested, module IDM M-9 (Seed treatment with carboxin 37.5% + thiram 37.5% WP @3g kg⁻¹ seed, 1 spray of azoxystrobin 23% SC @ 1.0 ml L⁻¹ at late tillering stage, 1 spray of *Trichoderma viride* and *Pseudomonas fluorescens* (1:1) @ 20g L⁻¹ at stem elongation stage, 1 spray of imidacloprid @1 ml L⁻¹ (for plant hopper) followed by 1 spray of neem leaf extracts (NLE) @ 5 per cent v/v at initial heading stage and 1 spray of mancozeb 63% + carbendazim 12 %WP @ 2.0 g L⁻¹ at heading stage)] was found to be most effective for the management of sheath blight of rice with lowest disease incidence (5.72 %) and severity (14.72%) as against control (16.52% disease incidence & 44.37 % severity) and also for enhancing crop yields. This module may be adopted for farmer practices level for better management and higher yield at western plain zone of Uttar Pradesh.

Key words: *Rhizoctonia solani*, rice, sheath blight

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