Disease and pest management in system of rice intensification for sustaining crop health and production

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System of Rice Intensification is a set of practice which includes early transplanting, wider spacing, single seedling hill-1 and no standing water. This system of cultivation protects soil, saves water as well as environment, reduces disease and pest incidence ultimately increases the production and productivity for providing food to the growing population. Pests have been associated with crops since times immemorial. It is well known that SRI has low insect pest and disease incidence resulting in low chemical pesticide application. Integrated pest and disease management in SRI method is practiced to avoid higher input cost, reduces environmental pollution and protects crop health. Synthetic pesticides are used only when the incidence of pest or disease is very severe. In SRI, organic pesticides, pest resistant varieties, transplanting at appropriate stage after removal of terminal part of seedlings to reduce the chances of carrying and migration of immature stages of insects, adoption of mechanical practices like rope running to pests etc are used as preventive measures, before going to chemical interventions. However under changing environmental condition and indiscriminate chemical application to the rice crop in general, the pests have also developed resistance. Therefore, in order to avoid the disease pest attacks and ensure a healthy crop, it is need to be acquainted with the rice pest, damage symptom caused by them and management options. The farmers are advised to practice the non-chemical managements unless and until the damage does not crossed the threshold limit. These practices help in increasing yield, improve grain and crop quality, maintain seed viability, decrease cost of pest and disease management, and reduce the negative impact of pest management on the environment and health by reducing reliance on pesticides.

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