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KARI Information brochure series 2013/149
Kshs. 30

MANAGEMENT OF RICE BLAST DISEASE IN SUSCEPTIBLE RICE VARIETIES



Introduction

Rice (*Oryza sativa* L) is a unique crop that grows well in waterlogged condition. It is a staple food of nearly one-half of world's population, contributing to over 20% of the total calorie intake to humans.

In Kenya it ranks third among the food crop grown after maize and wheat. Basmati' rice varieties are the most preferred because they fetches much higher prices than other varieties due to their superior utilization characteristics.

However, they are more susceptible to rice blast disease. It is a fungal disease caused by a fungus *Pyricularia oryzae* (Cavara). Rice blast disease attack the crop at any stage of growth.

Disease symptoms and management

The symptoms include lesions on all parts of the shoot; stem rot, and panicle blight. When nodes are infected, all plant parts above the infection die and yield losses are severe. This is the most destructive symptoms and is referred to as neck rot, neck blast, or panicle blast stage of the dis-ease



Infected panicle

Management

There are several control strategies that may be undertaken in management of rice blast, these include fungicides nutrition management, cultural practices and use of resistant varieties.



Sheath blight

Diamond-shaped lesion

Cultural Practices

Use clean seed

Destroy all infected straw and crop stubbles,

Water management by continuous flooding maintaining 3-5 cm water depth from early tillering to grain filling stage.

Nutritional management

Avoid high nitrogen and apply at 80kg/ha in two splits at tillering and after booting stage silicon at a rate of 1000kg/ha phosphorus and potassium at planting, compost or livestock manure. Husks are rich in silica and can be used as a source of silicon.

Chemical Control

Nativo SC300, Thiophanate Methyl and carbendazim have been found to be effective timelines is important especially at late booting and heading stage.