

Management of sigatoka leaf spot disease(*Mycosphaerella musicola*) in banana at different locations in Belgaum district of Karnataka, India

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ABSTRACT

A farm trial was conducted during 2002-2003 viz., Munavalli, Yogikolla (Gokak Tq) and Hosakoti (Ramadurg Tq) at different places of Belgaum district of North Karnataka for the Management of Singatoka leaf spot disease of banana. The experimental results revealed that, two sprays of propiconazole 0.05% effectively controlled the Sigatoka leaf spot disease at all centres. The highest yield was obtained in the treatment of propiconazole 0.05% and it was lowest in control. Percent increase in yield over control and cost benefit ratio was the highest in propiconazole 0.05%

Key words : Yellow Sigatoka, Leaf spot, *Mycosphaerella musicola*, Banana, Yield, PDI.

INTRODUCTION

The yellow Sigatoka leaf spot caused by *Mycosphaerella musicola* is considered as one of the important diseases of banana in India. The economic losses due to the disease have been so heavy in some areas that banana production has ceased altogether, especially where susceptible varieties were grown. A severe incidence of Sigatoka was recorded in banana orchards of South Gujarat during 1976 to 1982 causing drying and defoliation of leaves and premature ripening of fruits in bunches on plants. Stover and Simmonds (1987) reported the yield reduction of commercially grown Horn plantains (AAB) by 50 per cent. In Karnataka, generally Sigatoka leaf spot is considered as serious disease in the major belt of banana of northern Karnataka.

MATERIALS AND METHODS

A farm trial was conducted during 2002-03 at Munavalli, Yogikolla (Gokak Tq) and Hosakoti (Ramadurga Tq) of Belgaum district for the management of Sigatoka leaf spot disease of banana. The spraying was done when the disease was observed on few plants. There were two treatments viz., propiconazole 0.05%, carbendazim 0.1% and control. A 0-6 scale was followed for scoring the disease index (Gauhl *et al.*, 1993). Observations were recorded with respect to PDI and yield.

RESULTS AND DISCUSSION

The experimental results revealed that, two sprays

of propiconazole 0.05% effectively controlled the Sigatoka leaf spot disease (6.13%) as compared to carbendazim 0.1% (28.74%). The maximum PDI was noticed in control (41.10%).

While at Munavalli, two sprays of propiconazole 0.05% effectively controlled the Sigatoka leaf spot disease (10.32%) followed by carbendazim 0.1% (30.56%). The Sigatoka leaf spot index was highest in control (43.48%). (Table 1)

In Ramadurga, the treatment propiconazole 0.05% effectively reduced the disease and recorded the lowest PDI (12.28%) followed by carbendazim 0.1% (28.56%) and it was maximum in control (38.20%). Ramsey *et al.* (1987) have also reported that, propiconazole was the most effective fungicide applied either continuously (50g a.i./ha) + oil or 100g a.i./ha alone or alternated (50g a.i./ha) + oil in a spray programme at North Queensland.

With regards to yields, the highest yield was recorded in the treatment of propiconazole 0.05% (75.4t/ha) followed by carbendazim 0.1% (53.33 t/ha) and it was lowest in control (39.99 t/ha) in Gokak (Table 1).

Similar results were reported by Nogueira (1995). He found that propiconazole 0.4 liters per hectare + mineral oil 12 to 15 liters per hectare was effective in controlling the disease.

In Munavalli, the highest yield was obtained in the treatment of propiconazole 0.05% (86.66 t/ha) followed by carbendazim 0.1% (73.33 t/ha). The lowest yield (46.64 t/ha) was recorded in control. In Ramadurga, the treatment propiconazole 0.05% recorded the highest yield

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