



Efficacy of different fungicide against anthracnose of mango (*Mangifera indica* L.) in Eastern Bihar

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Abstract : India is the largest producer of mango (*Mangifera indica* L.) in the world accounting for 52-63 per cent of total production. One of the major constraints in mango production is anthracnose disease caused by *Colletotricum gloeosporioides*, perfect stage-*Glomerella cingulata*. It invades on leaves, twigs, inflorescence and fruits reasonably ample loss considering total fruit reduction and production of poor quality fruit produced, rendered decreased rate in price. Therefore, an attempt was made with different fungicides in controlling anthracnose of mango. This investigation suggests carbendazim (4.48% PDI) as the most effective fungicide rendering maximum yield (126.8 kg/ tree).

Key Words : Mango crop, Anthracnose, Fungicides

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INTRODUCTION

Mango (*Mangifera indica* L.) is the leading fruit crop of India and considered to be the king of fruits, besides delicious taste, excellent flavour and attractive fragrance. It is rich in vitamin A and C. The tree is hardy in nature and requires comparatively low maintenance costs. Mango is the most important fruit covering about 35 per cent of area and accounting of 22 per cent total production of total fruits in the country, which is highest in the world with India's share of about 54 per cent. India has the richest collection of mango cultivars. The crop is of increasing significance because of its demand in the international market and worldwide expansion of mango production up to 27.9 mt of fruit during 2005 (Arauz, 2006). Unfortunately this crop suffers from a number of diseases at all stages of its development *i.e.* right from nursery stage to grow-up plant. Among the major diseases of mango, mango anthracnose disease cause considerable damage to mango crop (Prakash, 2004).

Anthracnose is present recognized as a most important field of mango worldwide (Ploetz and Prakash, 1997). Mango anthracnose (a fungal infection) caused by *Colletotricum*

gloeosporioides is one of the most prominent diseases that mango producers must combat in Eastern Bihar and other parts of India where mangoes are grown. The disease symptoms appear on leaves, twigs petioles, panicles and fruits. Anthracnose-free mangoes are almost impossible to contain in spite of extensive field application of fungicides, which have been effective in reducing the disease. (Mc-Millan, 1971; Rucle and Ledin, 1955). Many fungicides have been recommended against mango anthracnose. However, the search for newer and safer fungicides against major diseases is minimizing the diseases to the maximum extent as possible. Therefore, an attempt was made to study the comparative efficacy of different fungicides for the management of mango anthracnose.

MATERIALS AND METHODS

The experiments were conducted at the Sub Tropical Fruits (STF) Farm, Department of Horticulture, Bihar Agricultural University, Sabour, Bhagalpur-813210 (Bihar), India for five crop seasons (2007-08 to 2011-12) in Randomized Block Design with nine fungicide treatments and four

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