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In Vitro Evaluation of Fungicides Against *Colletotrichum gloeosporioides*

Mango is one of the most important fruits of India. Mango occupies an area of 1.01 million ha with a total production of 8.50 million tonnes contributing for 40 per cent of the area devoted to fruit crops. Mango crop is attacked by a number of diseases. Anthracnose caused by *Colletotrichum gloeosporioides* (Penz.) Penz. and Sacc. is one of the common diseases of mango occuring in severe form and causes much damage both to the foliage and fruits. Fungus, *Colletotrichum gloeosporioides* being cosmopolitan, pathogen, occurs on exceedingly diverse host plants. In view of this, it was felt necessary to study the evaluation of fungicides against the pathogen.

The seven systemic and non systemic fungicides were evaluated for their efficacy to inhabit the mycelial growth of *Colletotrichum gloeosporioides* by poisoned food technique described by Zentemeyer (1955). The nonsystamic fungicides were tried at 0.1, 0.2 and 0.3 per cent concentration, whereas the systemic fungicides were tried at 0.025, 0.050 and 0.100 per cent concentration (commercial formulation).

The fungicides were uniformly incorporated aseptically to a standardized PDA cooled to 45°C, so as to give the required concentrations. Twenty ml of the poisoned medium was poured aspetically into Petriplates of 90 mm diameter. Five mm discs from an actively growing zone of 12 day old culture was placed upside down at the centre of solidified medium and were incubated at 27 ± 1° C. Three replications were maintained for each treatment. The fungus grown on PDA without any fungicides served as control. The radial growth of the colony was recorded when maximum growth was observed in control plates. The per cent inhibition over the control was calculated by using the Vincent (1947) formula.

In the present study, among the six fungicides tested, derosal gave cent per cent inhibition of mycelial growth as 0.05 and 0.10 per cent concentrations tried. While indofil-M-45 gave cent per cent at 0.30 per cent concentration. The least per cent inhibition of mycelial growth was observed in case of kavach at all the concentrations, whereas, as there was no inhibition in case of blitox at 0.1 per cent concentration (Table 1).

Table 1 : *In vitro* evaluation of fungicides against the *Colletotriuhum gloeosporoides*

Fungicide	Per cent inhibition of radial growth of fungus				
	00.025	00.050	00.100	00.200	00.300
	A. Systemic				
Derosal	85.55	100.00	100.000	-	-
Score	80.00	086.66	091.110	-	-
	B. Non - Systemic				
Blitox	-	-	-	88.880	97.770
Indofill M-45	-	-	052.220	77.220	100.000
Captan	-	-	027.770	52.220	65.550
Kavach	-	-	018.880	38.880	51.110

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