



Screening of Mancozeb fungicide against leaf spot of turmeric caused by Colletotrichum Capsici.

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Abstract –

The fungicide Mancozeb was Selected and tested with the growth of Colletotrichum Capsici. And observed the significant inhibition of growth of pathogen.

Keywords - Screening, fungicide, leaf spot, turmeric.

Introduction-

Turmeric (*Curcuma longa* L.) is one of the major Spice crops of India belongs to the family Zingiberaceae which is commonly cultivated for its underground rhizomes.

it is widely used as spice, in religious ceremony & Cosmetic. It has powerful anti-inflammatory effects and has very Strong antioxidants. It is used mainly as a preservative in pickles, Chutneys, Sauces and ketchups. It is also used to pharmaceuticals, ayurvedic medicines and antiseptic.

Turmeric has medicinal properties like Stomachic, Carminative, tonic, blood purifier and antiseptic.

Recent medical demonstrations reported that turmeric possesses anticarcinogenic, anticoagulant; antimutagenic and anti-oxidative properties.

Turmeric plant is highly prone to several Fungal diseases. Among "The fungal diseases, leaf spot of caused by Colletotrichum capsici Syd. Butter & Bisby is the major fungal disease of turmeric resulting to huge losses of 25.83 to 62-12% fresh weight and 42.10 to 62.10%. day weight of mother and Finger rhizomes respectively.

Taking into Consideration the economic importance of creep and seriousness of disease prevailing on turmeric, the presence investigation was undertaken to study on screening of fungicide Mancozeb against leaf spot of turmeric Caused by Colletotrichum capsici.

Material & methods-

In Laboratory effect of Mancozeb fungicide on Colletotrichum capsici was observed by

applying the food poisoning technique as used by (onkar et. al 1993).

Firstly, the infected leaves of leaf spot of turmeric were collected. Isolation; purification & identification of the pathogen was done for evaluation; the appropriate required quantity of Mancozeb Fungicide was taken & slowly mixed with Czapek dose agar medium

on Solidification, 5mm disc of Colletotrichum capsici was inoculated in the centre. The plates were incubated for a week.

The observations were noted in the form of linear growth of control of plate when filled Completely. The minimum inhibitory concentration was recorded in the form of percent control of efficacy (PCE).

Results & discussions-

The efficacy of Mancozeb fungicide at different concentrations banging Seem 100 to goo leg/ml.

There is gradual decrease of the growth of Colletotrichum capsici up to 700 leg/ml The observations given in table showed that mancozeb used against Colletotrichum capsici at different concentrations ranging from 100 to 700 leg/ml from first day of incubation to 8 th day of incubation. At 300 ug/ml the PCR of Colletotrichum capsici was found on 8th day was 18.80, at 200 ug/ml it was 28.00, at 300 leg me it was 36.00 TAZE at 400 ug/ml it was 47-34, at 500 ug/ml it was 58.00 m, at 600 ug/ml it was 71.34 and at 700 ug/ml, it was 80.00, at 800 ug/ml it was 90. 67 and lastly at 900 leg/ml it was 100%. inhibition of growth of Colletotrichum capsici.

Table-

Table 38: Effect of Mancozeb on PCE of *Colletotrichum capsici*

Conc. (ug/ml)	Percent control efficiency (PCE)							
	Incubation period (Days)							
	1	2	3	4	5	6	7	8
100	81.67	77.34	66.00	51.00	41.34	31.34	25.00	18.80
200	83.34	80.00	74.00	62.00	52.00	39.80	31.00	28.00
300	88.00	84.80	79.80	70.73	61.67	48.00	40.34	36.00
400	94.00	90.00	86.00	78.34	70.73	59.00	51.00	47.34
500	97.00	95.00	91.67	85.00	77.00	66.67	63.20	58.00
600	100.00	100.00	95.00	90.00	86.00	80.00	76.00	71.34
700	100.00	100.00	100.00	100.00	88.00	86.00	83.47	80.00
800	100.00	100.00	100.00	100.00	100.00	100.00	100.00	90.67
900	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
S.E. ±	2.311	3.072	4.159	5.946	6.873	8.447	9.463	9.316
C.D at P=0.01	11.935	14.59	19.764	28.258	32.660	40.135	44.976	45.218
C.D at P=0.05	8.205	10.037	13.588	18.427	22.454	27.596	30.921	31.087

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