

FUNGICIDAL EFFICACY OF CARBANDZIM FOR DISESE MANAGEMENT

IN DRY ROT OF POTATO

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ABSTRACT :-

Patato (Solamm, tuberosume) is important nutritive food crop and cultivated all over the world. It get affected by various pest and diseases, among these fungal pathogen is an important one. The Potato gets affected by *Fusarium coerulewn (Lib) sach.* and cause dry rot. Due to disease development heavy economic loss is occurred. For the control of this diseases different fungicides was tested against *Fusarium coerulewn (Lib) sach.* The Fungicide like Carbandazim was found effective control of fungal growth causing Dry rot of Potato.

KEY WORDS :- Potato dry rot, fungicide carbandazim

INTRODUCTION :-

Potato is an important food crop. It contain high protein calories, more edible energy, rich in carbohydrates. Quality protein dietary fibers as a balance naturitive food Quality of potato proteins is comparable to egg and milk, therefore superior to those present in cereals pulses and vegetables for the high population areas like India potato is an important supplement food (Datar and Mayee 1985)

Potato is an important part of cotton industries for sizing the clothes. Paper industries. Production of alcohol, adhesives etc.

In view of above properties, it is a permanent solution of 21st century's major problems like hunger, malnutrition and unemployment. (Prahraj, 2006; Shekhwat 1999).

The Dry rot is causes by fungi *Fusarium coerulewn (Lib) sach.* That Causes by faulty handing, transporting and storage. (Boy 1972, Somani 2004).

The main symptoms of the disease is shrinkage and drying of tuber with content due to major water loss tuber become light weight (Gadewar 1989, Hawale 1993).

The present investigation has been carried out to control the dry rot by application of fungicides as carbandazim.

MATERIALS AND METHODS

The efficacy of different fungicides was tested by using potato slice. (Solunke 1996; Wakle and Kareppa 2000.)

Potato slice of 75 mm diameter and 10 mm thick were prepared. The various concentration of carbandazim were prepared on the basis of active ingredients i.e. 100 to 1000 micrograms per milliliters. The slice were dipped in different concentration of Carbandazim for five miniutes. Sterilized distilled water

were acts as control. A 5 mm mycelial mat of *Fusarium coerulewn (Lib) sach.* were inoculated aseptically at the center of slice. The plates containing potato slice were incubated at room temperature in laboratory during incubation period. The liner growth of *Fusarium coerulewn (Lib) sach.* were measured in mm at 24 hours of interval for 8 days. The result was presented in the form of percent control efficacy (PCE).

Table 1 : Fungicidal Efficacy of Carbandazim on percent control efficacy of *Fusarium coerulewn (Lib) sach.*

Concentration ug/ml	Percent control efficacy (PCE)							
	Incubation period (Days)							
	1	2	3	4	5	6	7	8
100	81.34	74.34	61.47	53.66	43.36	36.83	24.72	13.86
200	82.96	74.34	65.84	55.26	46.39	39.47	30.82	16.22
300	83.36	79.46	68.32	58.75	50.63	42.86	33.90	21.76
400	84.26	82.53	71.47	63.93	55.34	46.96	37.88	27.36
500	85.38	84.32	75.62	66.47	60.38	50.39	41.93	33.86
600	86.13	85.43	78.68	70.32	65.47	56.69	47.86	39.94
700	86.83	84.59	81.50	75.73	70.89	66.80	53.36	45.68
800	87.43	87.00	85.98	80.49	75.68	72.74	58.83	50.00
900	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1000	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
S.E.=+/-	1.58	1.54	1.37	1.22	1.56	1.46	1.13	1.71
C.D.=0.01	7.83	7.60	6.78	6.04	7.69	7.22	5.61	8.46
C.D.=0.05	5.23	5.10	4.53	4.04	5.16	4.83	3.74	5.66m

RESULTS

The sensitivity to different fungicides was tested against *Fusarium coerulewn (Lib) sach.* Causing dry rot of Potato. (Datar and Mayee 1985) Carbagandazim at 1000 micrograms. Per liter concentration shows highest growth of inhibition. At this concentration 100% Growth of *Fusarium coerulewn (Lib) sach.* Was observed. Therefore carbandazim are found most effective in control the growth of *Fusarium coerulewn (Lib) sach.* Causing Dry rot disease development of Potato.

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