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CONTROL OF DRY ROT OF POTATO FROM BOTANICAL PROTACTANTS, ALLIUM CEPAL.

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ABSTRACT:

Potato is important food crop used in daily consumption, is get affected by fungi and cause dry rot disseses.in order to control, differentbotanicals,Phyto protectantswere tested against, Fusariumcoeruleum causing dry rot of potato was tested. Potato variety KufariChandramukhi were treated with crud extract of bulb of Allium cepa,and found effective to check growth of Fusariumcoeruleum.

It is found that if concentration of Allium cepa is increased ,the liner growth of causal agent,Fungi Fusariumcoeruleumwere decreased.

KEY WORDS: Potato dry rot, fusariumcoerulum (lib.),protectants.

INTRODUCTION

Potato (solanum tuberosum L) is most important nutritive food crop.Contains protein,carbohydrates.Vitamins,and trace elements .It is a part of cotton industry for sizing cotton paperindustries used for alcohol production (Chaddah 1994).

In viw of above properties, it offers a permanent solution of twentyfirst century's problems like hunger,malnutrition and unemployement (Khurana 2006)

Potato are used as alternative source of human consumption,it is used as backed,boil roust, fried form in kitchen.thenutrative value of potato is very good it control the weight ,and kept silim.it contain high quality of protein, its rich in carbrohydrates,and provide rich edible energy.

The potato get affected by many pests and diseases, among. these phylloplane and storage diseases are important.the tuber diseases are Black scurf, common scab, Brown rot ,and dry rot are common, potato dry rot is most important disease caused by Fusariumcoeruleum (Lib,Sacc,) The symptoms of the diseases are shrinkage's ,and dry ness of content of tuber, and it became heavy in wight due to dryness, and farmers get heavy economic loss.(Robert,1940.,Gadewar,1989; Khurana,1998;Wakle and Kaeeppa,2000)

Potato rot can be controlled by various systematic and non-systemic fungicides and chemicals. the application of chemicals may be producinghazards, (Shirma,2001.) All agricultural production system and practices which are economically sound, and socially acceptable, and that contribute the better quality of life for the farmers, farm workers, and their families, and general users. (Khurana,2002).

Hence, present work has been carried out by application of botanicals protectant, i.e., thecrud extract of Allium cepa for control of dry rot of potato.

MATERAIL ND METHOD

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The extract of Allium cepa was prepared in 10% alcohol. One gram of leaf was crushed with minimum volume of 10% alcohol in sterile, mortar and pestle, under aseptic condition the final volume was made up to 100ml with 10% alcohol.

The potato slice with 10mm thickness and 75mm dimeter were prepared from fresh potato of kufrChandramukhi variety. The slices were dipped into different concentrations of Allium cep.a extracts 1.5, 2.0, 2.5, 3.0, 3.5, 4.0 and 4.5 percent concentrations for 5minutes slices were kept in sterile petri plats on the size 5mm mycelia matt of fusariumcoereulem (Lib). Sacc.were inoculatedaseptically The slice with distilled water was serve as control All plates were kept for incubation at room temperature for 8 days. The plates wryer observed at 24hrs interval and reading of increasing in growth of fusariumcoeruleum(Lib). Sacc were measured and recorded in terms of mm (Wakle and Kareppa 2000)

TABLE :Effectof Allium cepa L. on linear growth of fusariumcoerelum (Libb.) sacc.

Conc. %	Linear growth mm Incubation period (days)							
	1	2	3	4	5	6	7	8
1.0	15.66	17.3	20.00	25.33	29.33	34.00	38.66	42.00
1.5	13.33	17.00	18.33	22.33	26.33	31.33	35.66	38.33
2.0	10.66	14.33	15.66	18.66	21.66	24.33	27.33	31.66
2.5	7.33	11.66	13.66	15.33	18.33	18.33	21.66	24.66
3.0	4.66	8.33	11.33	11.66	12.66	12.66	16.33	16.33
3.5	2.33	4.66	6.33	6.33	7.63	6.36	8.66	9.63
4.0	00.0	1.33	2.66	1.36	2.33	1.36	1.63	2.66
4.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
control	15.33	23.66	33.33	45.66	53.66	60.33	68.66	75.00
SE+-	0.15	.35	0.41	0.90	1.25	1.30	1.41	1.54
CD=0.01	0.88	1.78	3.19	4.14	6.51	8.20	8.45	9.00

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RESULT

From the above it table it is seen that botanical protactancts are non toxic non hazardous and eco friendly for control the growth of dry rot of potatoThe crude extract of Allium cepa was teste against the fusariumcoeruleum (libb.) sacc. Casual agent of dry rot of potato. 0It was found most effective the inhibit the growtth of fusariumcoeruleum (Lib.) sacc. From different concentrations tested at the 4% concentrtion the copmpleat growth of fusariumcoerleum was arrested (Sharma 1999.,Sarvamangala etal.,1993 ., Sobit etal., 1995., Harendra etal .,1995., Sharma 2001,Shrivastava 1997).

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