Diseases Management of Leaf spot in Ambrette from Azadirachta *indica*

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ABSTRACT:

Ambrette (*Abelmoschus moschatus*) is commonly known as Muskmallow, Belongs to family Malvaceae.It is commercially and medicinally important, used to control diseases and disorders. The seed are of great economic importance that used in manufacture of Perfumes and in a pharmaceuticals industries. This plant gets affected by various pests and diseases, of these Leafspot disease are more important. In the disease development fungal pathogen *Alterneria alternata* plays prominent role in destruction and foliage of leaves and ultimately yield loss is occurred.

In order to control Leaf Spot disease caused by *Alterneria Hibiscum*,plant extract of **Azadiractha Indiac**was used and it is found useful to reduce the growth of Pahtogen significantly.

KEY WORDS:

Ambrette, Muskmallow, *Abelmoschus Moschatus* ,Phytoextract, ***Azadirachta indica***, *Alterneria alternata*

INTRODUCTION

Ambratte [*Abelmoschus moschatus*] is medicinal and ornamental plant is distributed in India.The seed contains aroma that is similar to that of Musk Kasturi obtained from the Musk Deer(*Moschus moschifera*) It is used in Perfume industries,in blending in chewing Tobacco,& ingredients of several medicines it is coolent, Diuratic , checks the vomiting and cures disease due to imbalance. The seed coat yields an aromatic oil used in cosmetics, scents.It is used for imparting Musky odour like Pan masala and Incense sticks(Srivastava,1995).

Ambrette suffer from several fungal and viral diseases like Mosaic disease ,anthracnose and leaf spot disease are important. Initial symptoms of diseases caused by *Alterneria alternate* ,includes appearance of dark brown spot on the leaves, spot are more prevalent on leaf margins(Singh & Gupta,1961.,Wakle and Kareppa,2000.,Wakle 2015) the dark brown patches

cover almost all part of the leaf surface causing defoliation and killing the plant that cause high economic loss,th the farmers,therefore attempt has been carried out to control the leaf spot disease caused by *Alterneria alternata* from the phytoextract of ***Azadirachta indica***

MATERAILS AND METHODS:

For the evaluation of effect of plant extract, medium aged leaves of ***Azadirachta indica*.** Were collected, washed and grinded.10gm of leaves were used and prepared 100ml extract with sterilized distilled water and used as a mother extract.The different dilution were prepared as 1.0,1.5,2.0,2.5,3.0,3.5,4.0 from the mother extract.The pathogen used for assey of antifungal activity *Alterneria alternata* . The culture were maintained on potato dextrose agar(PDA) medium and used for bio assay by poisoned food technique (Manik Khandare and Wakle 2009).10ml plant extract of each concentration mixed with 100ml of czepakdox Agar medium,and without plant extract treated as control.A 5mm mycelia disc was cut from the ten days old culture of *Alterneria alternata*, inoculated aseptically at the center of each plate for each treatment 3 replicates were maintained. After 7 days of incubation period, diameter of fungal growth was measured and determined as percent control efficacy.

Conc. (%)	Linear growth(mm) Incubation period (days)							
	1	2	3	4	5	6	7	8
1.0	12.66	17.33	23.00	31.66	38.33	45.00	51.66	57.00
1.5	9.33	14.00	19.66	24.33	30.33	36.66	41.00	50.33
2.0	0.00	5.66	10.33	17.00	26.66	32.00	38.33	44.00
2.5	0.00	0.00	5.33	9.66	15.33	22.66	29.00	37.66
3.0	0.00	0.00	0.00	5.00	8.00	13.33	19.66.	26.00
3.5	0.00	0.00	0.00	0.00	0.00	5.66	9.33	15.33

4.0	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	53.33	60.33	68.66	75.00
SE=+-	0.54	1.07	1.22	1.80	1.96	2.61	2.67	2.87
CD=0.01	2.71	5.29	6.04	8.89	9.68	12.60	13.17	13.71
CD=0.05	1.78	3.45	4.04	5.82	6.49	8.64	8.21	9.84

Table: Effect of ***Azadirachta indica*** on linear growth of *Alterneria alternata*.

RESULT AND DISSCUSSION

From the above table it revels that as increase in incubation period the growth of *Alterneria alternata* is increased and as increase in concentration of plant extract of ***Azadirachta indica*** there was decrease in linear growth of *Alterneria alternata.* The concentration like 2.5,3.0 &3.5 were found more effective for control the growth of *Alterneria alternata* while at concentration 4.0 found most effective to check the growth causing leaf spot in Ambratte. Khandare and Wakle [2009] also used plant extract against the seedling disease of Sonamukhi and found that plant extract of ***Azadirachta indica*** and Eculaptus Citridora check the growth of Alterneria, Wakle G.L. [2015]. Also found that plant extract of Jatropha Curcas and found found effective in reduce the disease of Muskmallow similar type of results is found to Mishra and Tiwari[1992],Shrsikar and Kadam[1992], Robinson etal[1998],Sarvamangal and Dutta [1993].

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