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Antifungal activity of V*vitex Negudo Linn and Butea*m*onosparm* aginest *alternaria hibiscicum*

Wakle G.L.

Department of Botany - R.M.I.G. College, Jalna

Email - Gautam Wakle @ gmail.com Cell No. 9423343735

ABSTRACT -

Hibiscicum abelmoschus Linn. (Kasturi Bhandi) is important medicinal plants, used to control many human and animal diseases and different dis orders.

The Seeds and leaves, pods and roots are use ful and have economic important, that are used in manufacture of perfumes, brewing and pharmaceutical industries. The seed are useful for manufacturing perfumes and scants, incent stacks so are very important and has economic value.

This economically important plant get affected by various pests and diseases other pathogen are also affecfed like bacteria Viruses and aphides among These, fungi are plays major role for distraction and of seeds.

In order to control the leaf spot disease *Hibiscicum abelmoschus Linn.* Caused by *Altarnaria hibiscicum* different wild medicinal plant parts were used The phyto exteract of Calutropis *procera* are useful to reduce the fungal groth of *Alternaria hibiscum* significately

KEYWARDS :-

Hibiscus abelmoschus Ambrtee, phyto extract.

INTRODUCTION -

Hibiscus abelmoschusLinn is belongs to family malvaceae Its distributed all parts of India The seeds contains an aroma that are Simiter to musk (Kasturi) obtained from musk deer (*moschas moschifera*)

The seeds are used in perfume industry in blending of chewing tobacco (Zarda) and ingradients in several medicines. The Seeds are use as coolent in the treatment of discorders Testing by heat, diureting for treatment of any urenary inflamentary disorders, it cheaks vomiting and cures disease due to imbalance.

The seed coat Contain an aromatic oil used in cosmetic, Scents. The Oil is used for importing musky Odour to product like Sachats pan masala insense Sticks (Srivastava 1995) Its suffer from different disease Affected by bacteria viruses, and fungi like Mosiac diseases and leaf spot are important.

The primary Symptoms of leaf spot diseases caused by *Alternaria hibiscicum* are appreance of dark brown spot on leaves, and spots are Prevalent on leaf margins (Singh and Gupta, 1961; Wakle and kareppa 2000) The dark brown patches covers almost all parts of the leaf surface causing defoliation and killing plant that causes high to growers. There fore the investigation has been carried out to a control the leaf spot diseases of *Hibiscus abelmoschus* caused by Alternaria hibiscicum.

Materials and Methods :

For the evaluation of phytoextracts of diffrent wild medicinal plants

Vitex Negudo Linn and Buteamonosperna (Lamk) Against *Alternaria hibiscicum* caused leaf spot diseases in *Hibiscus abelmoschus* Medium aged leaves were collected, chopped, washed and socked The leaves were grinded and fine powder were prepared 10 gm, of powder diluated in 100 ml of distilled water and use as mother liquid extract The pathogen i.e. *Alternaria hibiscicum* is used to Assay the Antifungal activity the culture of pathosen were Maintain on Potato Dextrose Agar Medium and used for bio assay by Poisoned food technique (Manik Khandure and wakle 2009, Wakle G.L. 2015) 10 ml. phyto extract of each concentration mixed

with 100 ml of Czepak dox Agar medium, the medium with out plant extract treated as control. A 5 mm mycelia disc was cut from 10 days old culture of *Alternaria hibiscicum* and Inoculated at the centre of each plate. For each treatment three replicates were maintained After 7 days of incubation period diameter of Fungal Growth was measured and determins as percent control efficacy.

Table - 1 Bioassay of phyto extract *Vitex Negudo Linn* on growth of *Alternaria Hibiscicum*

Conc %	Percent control efficacy incubation period in days						
	1	2	3	4	5	6	7
1.0	12.66	19.33	24.00	30.33	38.66	45.33	60.00
1.5	8.33	15.00	21.66	27.33	33.00	39.66	46.33
2.0	5.66	7.66	10.33	14.00	23.00	30.66	36.00
2.5	+++	5.33	8.66	16.33	21.00	28.33	33.33
3.0	+++	+++	5.00	12.66	14.33	19.66	26.66
3.5	+++	+++	+++	8.00	10.00	10.33	17.00
4.0	+++	+++	+++	+++	3.00	5.33	11.66
4.5	+++	+++	+++	+++	0.23	0.20	10.33
Control	+++	+++	+++	+++	+++	+++	+++
SE+-	0.34	0.68	0.81	1.10	1.36	1.33	1.80
CD Opl.	1.67	3.38	4.51	5.47	6.74	8.73	8.96

Table 2-Bioassay in phyto extract of Butea Monosparma On growth of Alternaria Hibiscum

Conc %	Liner growth in milimeter incubation period in days						
	1	2	3	4	5	6	7

1.0	16.33	20.33	26.66	32.00	39.33	45.66	54.00
1.5	14.00	18.33	23.00	30.66	37.00	41.66	47.33
2.0	9.66	14.66	17.33	21.00	28.33	30.66	38.00
2.5	5.33	8.66	14.00	17.33	24.00	27.33	36.66
3.0	++	5.00	7.66	13.33	16.66	26.00	28.00
3.5	++	++	5.00	6.66	9.33	13.66	11.33
4.0	++	++	++	0.00	6.33	8.00	9.66
Control	++	++	++	++	++	++	++
SE+-	0.45	0.65	0.89	1.07	1.49	2.09	2.12
CD Opl.	2.23	3.20	4.42	5.28	7.35	10.8	10.47

Result and Discussion

Antifungal Activity of *Vitex negudo Linn* and *Butea monosparma* is shown in Table 1 and table - 2 From the Table 1 observation is reveals that as incubation period of *Alternaria hibiscicum* is increase the Percent control efficacy is decrease with the increase in concentration of *Vitex neugodo Linn*. as increase in concratation decrease in Liner growth in form & milimeter from Table 2 Same result is found by application of *Butea monosperma*phyto extract concentration i.e. by increase in concentration percentage decrease in lIner growth of *Alternaria hibiscicum* Among hte two phyto extract tested *Vitex negudo* is found more effective as compare to *Butea monosparma* in controling the growth of *Alternaria hibiscicum* of V. Negudo

The concentration 2.5, 3.00 and 3.5 were found more effective as compare to *Butea monosperma*, concentration at 3.0 &3.5 reduce the fungal growth (Khandare and wakle 2009, Wakle 2015) negudo at 2.5% concentration of *vitex* antifungal activity is reduced significantely Khandare and wakle 2009 wakle 2015 have found same result in seedling disease in sonamukhi and Found that phyto extract of A. indica and Cidro dora against antifungal activity of *Alternaria Solani.*

Wakale 2015 Used phyto extract to cheak the antifungal activity of Jatropha curecus Mishra and Tiwari (1992) used phyto extract of A indica Eucalyptus. Shirskar and kadam (1992) Used phyoto extract of Neem. Robinson *et al* (1998) Sarvamangal and Datta (1993) also used the phyto extract and found silimer result of antifungal activity of phyto extract.

From the above result is found that phyto Extract of *Vitex negudo Linn* is more effective to control the Fungal growth of *Alternaria* Causing Leaf spot disease in *abelomuschus hibiscicum.*

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