

Antifungal activity of *Vitex Negudo* Linn. and *Buteamonosperm* Aginest

Alternaria hibiscicum

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ABSTRACT -

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

The Seeds and leaves, pods and roots are useful and have economic important, that are used in manufacture of perfumes, brewing and pharmaceutical industries. The seed are useful for manufacturing perfumes and scents, insect sticks so are very important and has economic value.

This economically important plant get affected by various pests and diseases other pathogen are also affected 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 *Alternaria hibiscicum*, wild medicinal plant parts of *Vitex Negudo* Linn and *Buteamonosperm* were used. The phyto extract *Vitex Negudo* Linn and *Buteamonosperm* of are found useful to reduce the fungal growth of *Alternaria hibiscum* significantly

KEYWORDS :-

Hibiscus abelmoschus Ambrette, phyto extract, Medicinal plants.

INTRODUCTION -

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

The seeds are used in perfume industry in blending of chewing tobacco (Zarda) and ingredients in several medicines. The Seeds are use as coolant in the treatment of disorders Testing by heat, diureting for treatment of 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 Mosaic 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 ecomic 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 Negundo 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 pathogen 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 Antifungal Activity of phyto extract *Vitex Negundo Linn* on growth of *Alternaria Hibiscicum*

Conc %	Liner Growth in mm.						
	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-Antifungal Activity of 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

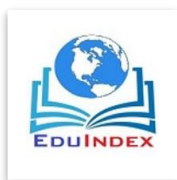
3.0	+++	5.00	7.66	13.33	16.66	26.00	28.00
3.5	+++	+++	5.00	6.66	9.33	13.66	11.33
4.0	+++	+++	+++	0.00	6.33	8.00	9.66
Control	+++	+++	+++	+++	+++	+++	+++
SE+-	0.45	0.65	0.89	1.07	1.49	2.09	2.12
CD Opl.	2.23	3.20	4.42	5.28	7.35	10.8	10.47

Result and Discussion

Antifungal Activity of *Vitex negundo* Linn. and *Butea monosperma* 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* phytoextract concentration i.e. by increase in concentration percentage decrease in liner growth of *Alternaria hibiscicum* Among these two phyto extract tested *Vitex negundo* is found more effective as compare to *Butea monosperma* in controling the growth of *Alternaria hibiscicum* causing leaf spot in *Alternaria hibiscicum*.

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 significantly 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*.

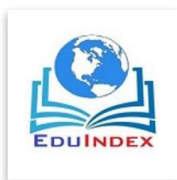
Wakale 2015 Used phyto extract to cheak the antifungal activity of *Jatropha curecus* Mishra and Tiwari (1992) used phyto extract of *A indica* *Eucalyptus*. Shirskar and kadam (1992) Used phyto extract of *Neem*. Robinson *et al* (1998) Sarvamangal and Datta (1993) also used the phyto extract and found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



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

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