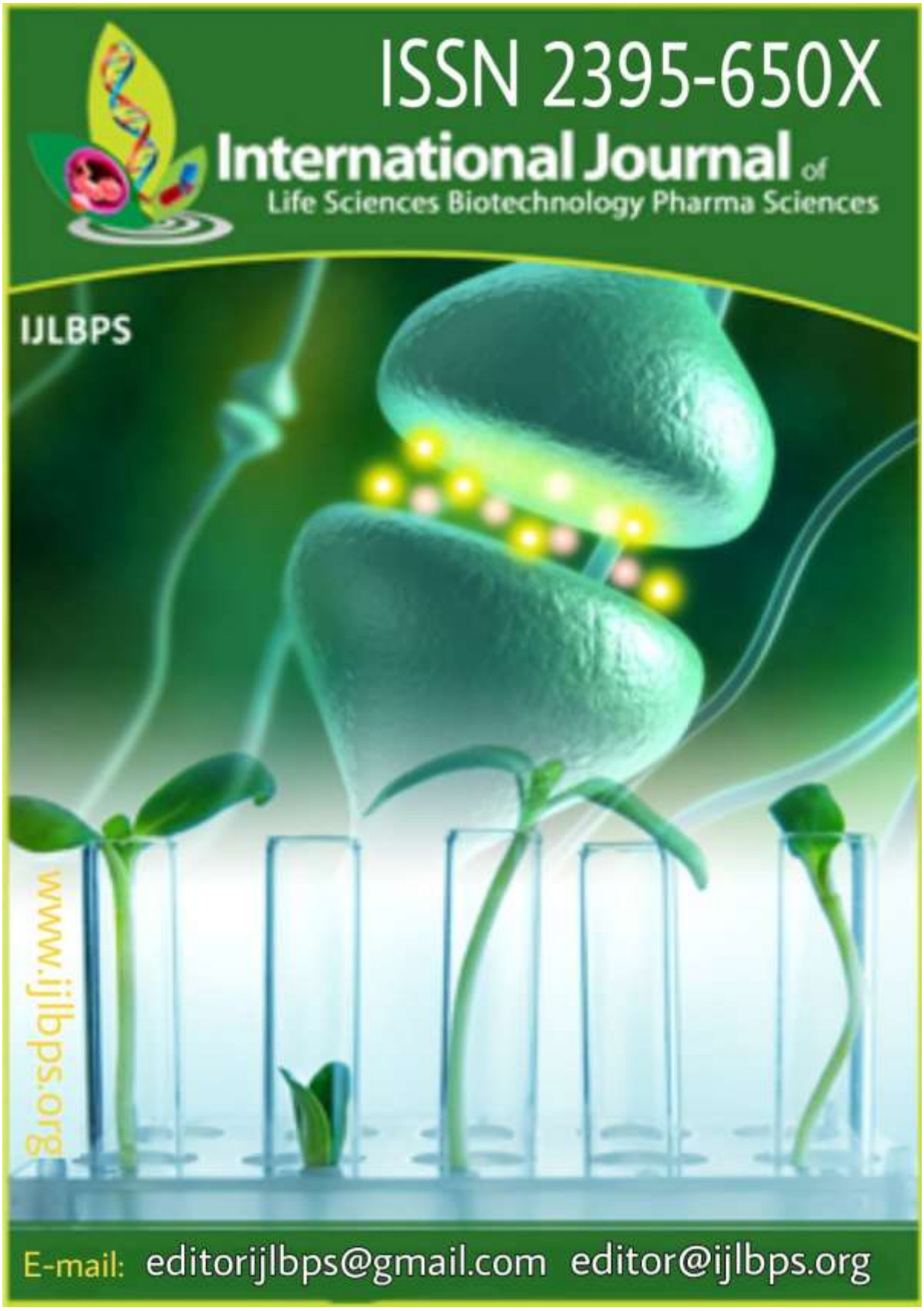
ISSN 2395-650X
International Journal of
Life Sciences Biotechnology Pharma Sciences
IJLBPS
www.ijlbps.org
E-mail: editorijlbps@gmail.com editor@ijlbps.org

International Journal of Life Sciences Biotechnology Pharma Sciences

Volume 10 Issue 1 2022

STUDIES OF VITEX NEGUNDO L. LEAF EXTRACTSON LINEAR GROWTH OF COLLETORICHUMCAPSICICAUSINGSPOT OF TUMERIC

RajabhauAnantraoKambleAssociateprofes
sor,DepartmentofBotany
ShriHawagiswamiMahavidyalaya,Udgir,Dist.Latur(Maharashtra)
Email:kamble.rajabhau@rediffmail.com

ABSTRACT

There are several uses for turmeric (Curcuma longa L.), a medicinal herb and a spice. Often seen in Asian cuisine. It covers an area of 99200 hectares and produces 167500 tons per year. In India, Pakistan, China, the Indo-Chinese region, Peru and Sri Lanka, it is mostly grown. turmeric comes in a variety of forms, including Alleppey, Armoor, Chintamani, Duggirala, Kasturi, Krishana, Lokhandi, Rajapuri, Salem, Tekurpeta red, and Waigaon, to name a few (Indiresh et.al. 1990). Significant amounts of starch and a tiny amount of an alkaloid can be found in the rhizome. As per Ghosh and Govind (1982), "

A wide range of characteristics can be found in the morphology, rhizome, and quality characteristics of turmeric variations (Philip 1978, Philip et. al. 1980). There are several uses for the rhizome in the food and cosmetic industries. The volatile oil and curcumin levels of dry turmeric were both determined to be above normal. For example, it contains mentanil yellow as well as curcumin. According to (Murthy & Subrahamanyam,1982)

A food poisoning technique was used to test the extract of Vitexnegundo L. plants against Colletotrichumcapsici (Onkaret. Al., 1993) An alkaloids and tannins found in plant extracts are responsible for the plant's antifungal properties,

phenolicphytotoxins, including cumarins (quinones) (Datar 1999). There are a number of fungi that can attack such a complex and commercially significant crop as turmeric, and the current study provides management guidelines for the treatment of turmeric leaf spot caused by Colletotrichumcapsici.

Keywords: Vitexnegundo,Plantextract,Lineargrowth.

MATERIALANDMETHODS

Vitexnegundo L. leaves were collected and distilled three times before being used. Using a mortar and pestle and 10% alcohol, the leaves were mashed. Muslin cloth was used to filter the extract. The desired concentration of plant extract was obtained by adding 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 ml of extract to 100 ml of warm medium, and the resulting solution included 100 ml of 10% alcohol. To begin the experiment, Czapek-dox agar was put into petriplates that had been sterilized. On each plate, 5 mm of Colletotrichumcapsici was placed at its center. mm was used to gauge the rate of linear growth. BISWAS ET AL (Biswas and colleagues, 1995)

Table1;-StudiesofVitexnegundoL.leafextractsonlineargrowthof

ColletotrichumcapsicicausingleadspotofTurmeric.

Conc.%	Lineargrowth(mm)							
	Incubationperiod(Days)							
	1	2	3	4	5	6	7	8
1.0	12.00	15.00	20.00	26.00	30.00	35.00	39.00	43.00
1.5	8.66	12.33	15.00	18.66	21.00	24.00	26.33	28.00
2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
2.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00
3.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00
3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Control	14.00	18.33	25.66	30.00	38.00	48.66	61.00	75.00
S.E.+	2.69	3.95	4.95	6.80	7.90	9.10	10.20	13.00

RESULTANDDISCUSSION:

Colletotrichumcapsici grew linearly in response to Vitexnegundo L. leaf extracts. The linear development of Colletotrichumcapsici was shown to increase as the concentration of Vitexnegundo L. was increased. It was 75 mm long on the 8th day, as compared to incubation in the control. As concentration and incubation time increase, linear growth slows. 8th day incubation yielded a 43.00% and 28.00% increase in mycelia at the respective concentrations. Colletotrichumcapsici growth was completely inhibited at 3.5 percent, with a maximum inhibition of 8.00 mm.

REFERENCES:

1. There are three primary diseases of mulberry that are evaluated in this study: 1. BiswasShubruta; 2. Das N.K; 3. Quadri, S.M.H. and Sarechandra B.C. (1998) 48 (3): 342-346, Journal of Indian Phytopathology.

2. Plant extracts have been shown to have a positive effect on the Macrophominaphaseolina (Tassi) Govind parasite's ability to reproduce. Sorghum's primary cause of charcoal rot Mycoplasma phagocytophilia 29.2: 251.

3. turmeric yield and quality in north-eastern hills: Ghosh, SP and SheoGovind (1982), p. Journal of Horticulture 39:70-86.

4. It was found that Indiresh KM, and Uthalah BC (1990): Morphological rhizome and yields 484 through 490

5. Plant pathology methods by Onkar, James B. Sinclair and K. Dhingra (1993 'Basic plant pathology methods.')

6. Curcuma longa (Curcuma longa L.) kinds and their morphological and qualitative characteristics were studied and evaluated in this thesis by Philip JC (1978). Agricultural University of KerelaTrich, Vellanikara