

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the year

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number
Ethnobotanical and Critical Appraisal Studies in Tithonia Species	Gopika Manjunath	Biotechnology	Scientific Approaches For Sustainable Environment	Dec-23	978-93-93789-57-0 LSPP 03
An analysis DNA extraction and genetic improvement in plant	Gopika Manjunath	Biotechnology	International Journal of Agriculture and Nutrition	2024	P-ISSN: 2665-6064 E-ISSN: 2664-6072, RJIF 5.2
Plant breeding and improvement system of major woody fruit species	Gopika Manjunath	Biotechnology	International Journal of Horticulture and Food Science	2024	P-ISSN 2663-1067, E-ISSN: 2663-1075, IMPACT FACTOR : RJIF 5.2



Ethnobotanical and Critical Appraisal Studies in *Tithonia Species*

Gopika Manjunath¹, Soniya Baijunath Dubey², Taniya Raghuvver Dubey³,
Saniya Babulal Hingani⁴

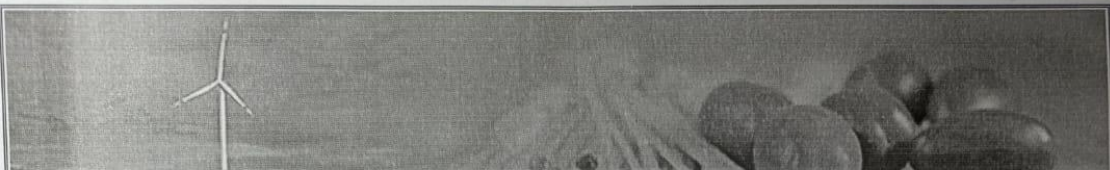
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Abstract:

Tithonia diversifolia is a tropical woody herb or succulent shrub cultivated in many countries. It is an annual or perennial medicinal plant that has a subject of research due to its benefit in the treatment of different ailments. The plant material was extracted in different solvent like Ethanol, Methanol, Chloroform, Water and Diethyl ether to allow extraction of crude active compounds. This was used for Nutritional, Phytochemical, Antioxidant, Antibacterial, Antifungal, and Antidiabetic studies. Nutritional (Qualitative) analysis showed the presence of carbohydrate, Lipids, Proteins and Aminoacids, Methanol and Chloroform extract showed best activity. Phytochemicals such as Tannis, Flavonoids, Saponins and Alkaloids are present. The phytochemical component for Tannin 85.91%, Saponins 42.85%, Phenols 39.86% and Flavonoids 74.95%. Antibacterial activity was checked for Gram negative bacteria (*Escherichia coli*), Gram positive bacteria (*Staphylococcus aureus*) in *Escherichia coli* maximum zone of inhibition was observed at concentration 200µl and its percent inhibition was 1cm, in *Staphylococcus aureus* maximum zone inhibition was observed at concentration 80µl and its percent inhibition 0.8cm. Antifungal activity was checked for *Candida albicans* and *Aspergillus niger*. In *Candida albicans* maximum zone of inhibition was observed at concentration 160µl and its percent inhibition was 0.7cm. Rapid antioxidant screening was done by TLC and later confirmed by DPPH and FRAP assay. In DPPH assay IC_{50} Value is 66.80 and in FRAP assay value is 66.66. In vitro antidiabetic activity by α -Amylase inhibition



International Journal of Agriculture and Nutrition

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Peer Reviewed Journal, Refereed Journal, Indexed Journal

P-ISSN: 2664-6064, E-ISSN: 2664-6072, RJIF 5.2

Publication Certificate

This certificate confirms that "**Gopika MK**" has published manuscript titled "**An analysis of DNA extraction and genetic improvement in plant**".

Details of Published Article as follow:

Volume	:	6
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