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# DR. KANAILAL BHATTACHARYYA COLLEGE

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Ref. No. ....

Date : .....

### 3.2.1 Number of papers published per teacher 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	Link to the recognition in UGC enlistment of the Journal
Cytokinin and Abiotic Stress Tolerance - What has been Accomplished and the way forward ?	Dr. Dipu Samanta	Botany	Frontiers in Genetics	2022	1664-8021	UGC Care List -II
Traditional Uses PhytoChemistry Pharmacology A&Toxicology of Garlic( <i>Allium Sativum</i> ),a	Dr. Dipu Samanta	Botany	Frontiers in Nutrition	2022	2296861X	<a href="https://www.frontiersin.org/journals/nutrition">https://www.frontiersin.org/journals/nutrition</a> <a href="https://www.scopus.com/sourcid/21100913479">https://www.scopus.com/sourcid/21100913479</a> UGC Care List -II
Quality of Life of the Rural Women in Haora District Some Observation	Dr. Sutapa Mukherjee	Geography	Indian Journal of Geography Vol: 19	2022	0972-7388	UGC Care Listed
Aila to Yaas - Legecis of Destruction : Case Studies From Selected Sites of Sundarban			Indian Journal of Spatial Science	2022	Spring Issue 2022: 13(1) pp 100-159	UGC Care Listed
Transcriptome analysis reveals upregulated secondary metabolite pathways in micropropagated <i>Lawsonia inermis</i> L.	Dr. Dipu Samanta	Botany	VEGETOS	2023	0970-4078	UGC Care List -II <a href="https://www.scopus.com/sourcid/19400157312">https://www.scopus.com/sourcid/19400157312</a>

Authenticated

*Kaustubh Lahiri*  
(Dr. Kaustubh Lahiri)  
Principal  
Dr. Kanailal Bhattacharyya College

# Transcriptome analysis reveals upregulated secondary metabolite pathways in micropropagated *Lawsonia inermis* L.

Research Articles Published: 19 April 2023

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## Abstract

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Henna plant (*Lawsonia inermis* L.) have been found to be useful, medicinally and commercially, due to its vast repertoire of secondary metabolites. The pigment lawsone (2-hydroxy-1, 4-naphthoquinone.) derived from the plant is the source of Mehendi, used for dying. This importance creates huge supply pressure for the plant, which can't be met by traditional farming specially in the obliteration of cultivable land due to characteristic changes in soil as a direct effect of global warming. There have been reports of low propagation from stem cuttings and seed. So, micropropagation remains the only tool, for large scale vegetative propagation, saving the plant from overexploitation. In this work, the plant was established *in vitro*, with hormonal manipulation BAP 4 mg/L and a combination of BAP 2 mg/L and Kn 2 mg/L turned out to be the best hormones for shooting, producing 8 and 12 shoot buds respectively per explant. Significant rooting was seen in MS medium highlighting the low cost of maintenance. Transcriptome analysis through the