

**THE
BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)**

ISSN 0253-5416 (print), 2079-9926 (online)

This publication is covered by Current Contents, Current Advances in Plant Sciences, Biological Abstracts, Elsevier Abstracts and several other Abstracting Systems.

In addition all papers of each issue are available in the
websites: <www.bdbotsociety.org>, <www.banglajol.info/index.php/BJB>

Bangladesh Botanical Society established in 1972 has been publishing the Bangladesh Journal of Botany since its inception. The journal was previously published biannually, however, since 2014, the society publishes the journal quarterly, one issue each in March, June, September and December.

Scientific papers written in English on any field of plant sciences from anywhere in the world are considered for publication in the Bangladesh Journal of Botany.

All manuscripts intended for publication in the journal should be sent to the Chief Editor, Bangladesh Journal of Botany, c/o. Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh as word file through e-mail: <journalbbs2021@gmail.com>, <bdbotsoc@gmail.com>

Copies are available from the Secretary General, Bangladesh Botanical Society, c/o. Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh.
Fax: 880-2-9667222, E-mail: <bdbotsoc@gmail.com>, website: <www.bdbotsociety.org>

Price of the journal

	SAARC countries	Other countries
Each issue	US\$ 30.00 + 5.00 (Postage)	US\$ 30.00 + 8.00 (Postage)
Each volume (4 issues)	US\$ 120.00 + 10.00 (Postage)	US\$ 120.00 + 16.00 (Postage)

In Bangladesh, Tk. 500.00 for one issue and Tk. 2000.00 for each volume.

Published by the Chief Editor, Bangladesh Journal of Botany, c/o. Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh, on behalf of the Bangladesh Botanical Society on 28 December, 2025. Fax: 880-2-8615583, website: <www.bdbotsociety.org>, E-mail: <bdbotsoc@gmail.com>

Printed by: SRL Printing Press, 12, Babupura, Nilkhet, Dhaka-1205, Bangladesh
Cell: 01552-388130, 01612-388130

THE BANGLADESH JOURNAL OF BOTANY

(Bangladesh J. Bot.)

ISSN 0253-5416 (print), 2079-9926 (online)

Vol. 54

No. 3

December 2025

EDITORIAL BOARD

- Chief Editor** : **Prof. Dr. Md. Abul Bashar**
Department of Botany, University of Dhaka,
Dhaka -1000, Bangladesh
Microbiology, Plant Pathology
E-mail: journalbbs2021@gmail.com
- Executive Editor** : **Prof. Dr. Ashfaque Ahmed**
Department of Botany, University of Dhaka,
Dhaka -1000, Bangladesh
Ecology, Natural Resource Management, Climate Change
E-mail: journalbbs2021@gmail.com

Editors

- Prof. Dr. M. Azizur Rahman**
Department of Botany, University of Chittagong
Chittagong - 4331, Bangladesh
Agronomy, Horticulture
- Prof. Dr. Mohammad Zashim Uddin**
Department of Botany, University of Dhaka
Dhaka -1000, Bangladesh
Plant Taxonomy, Ethnobotany
- Prof. Dr. Z N Tahmida Begum**
Department of Botany, University of Dhaka
Dhaka -1000, Bangladesh
Phycology, Limnology
- Prof. Dr. M. A. Gafur**
Department of Botany, University of Chittagong
Chittagong - 4331, Bangladesh
Environmental Sciences
- Prof. Dr. Feroza Hossain**
Department of Botany, Jahangirnagar University
Savar, Dhaka -1342, Bangladesh
Plant Physiology
- Prof. Dr. Shamim Shamsi**
Department of Botany, University of Dhaka
Dhaka -1000, Bangladesh
Mycology and Plant Pathology
- Prof. Dr. Md. Mahfuzur Rahman**
Pro-Vice Chancellor, Jahangirnagar University
Savar, Dhaka -1342, Bangladesh
*Ecology and Environment, Ecosystem Ecology,
Restoration Ecology, Nature and Plant Conservation*
- Prof. Dr. Nazmul Alam**
Department of Botany, Jahangirnagar University
Savar, Dhaka -1342, Bangladesh
Plant Breeding, Plant Tissue Culture
- Prof. Dr. Mohammad Musharof Hossain**
Pro-Vice Chancellor, Jamalpur Sci. & Technology
University Jamalpur, Bangladesh
Plant Biotechnology, Genetic Engineering, Mycology
- Prof. Dr. Shaikh Bokhtear Uddin**
Vice Chancellor
Meherpur University, Meherpur, Bangladesh
Ethnobotany, Pharmacognosy, and Biodiversity
- Dr. Haseeb Md. Irfanullah**
Independent Consultant-Environment, Climate
Change, & Research System, Dhaka, Bangladesh
Biodiversity Conservation, Climate change
- Prof. Dr. Farzana Ashrafi Neela**
Department of Botany, University of Rajshahi
Rajshahi-6205, Bangladesh
Microbial Ecology, Bacteriology, Phytopathology
- Prof. Dr. Mohammed Almujaaddade Alfasane**
Department of Botany, University of Dhaka
Dhaka -1000, Bangladesh
Phycology, Limnology, Hydrobiology
- Prof. Dr. Mohammad Nurul Islam**
Department of Botany, University of Dhaka
Dhaka -1000, Bangladesh
Plant Breeding, Genetic Eng. and Biotechnology

BANGLADESH BOTANICAL SOCIETY
EXECUTIVE COMMITTEE
(2024-2026)

PRESIDENT

Prof. Dr. Md. Azizur Rahman
C/o. Department of Botany, University of Chittagong
Chittagong-4331, Bangladesh

VICE-PRESIDENTS

Prof. Dr. Mihir Lal Saha
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

Prof. Dr. Nazmul Alam
Department of Botany, Jahangirnagar University
Savar, Dhaka-1342, Bangladesh

SECRETARY GENERAL

Prof. Dr. Mohammad Zashim Uddin
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

JOINT SECRETARY GENERALS

Prof. Dr. Mohammed Nurul Islam
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

Prof. Dr. Mohammed Musharof Hossain
Pro-Vice Chancellor
Jamalpur Sci. & Tech. Univ. Jamalpur, Bangladesh

TREASURER

Prof. Dr. Mohammed Almujaaddade Alfasane
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

MEMBERS

Prof. Dr. M A Gafur
C/o, Department of Botany, University of Chittagong
Chittagong-4331, Bangladesh

Prof. Dr. M. Mahfuzur Rahman
Department of Botany, Jahangirnagar University
Savar, Dhaka-1342, Bangladesh

Prof. Dr. Shamim Shamsi
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

Prof. Dr. Ashfaque Ahmed
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

Prof. Dr. Farzana Ashrafi Neela
Department of Botany, University of Rajshahi
Rajshahi-6205, Bangladesh

Prof. Dr. Md. Abul Bashar
C/o, Department of Botany University of Dhaka
Dhaka-1000, Bangladesh

Prof. Dr. Feroza Hossain
Department of Botany, Jahangirnagar University
Savar, Dhaka-1342, Bangladesh

Prof. Dr. Syeda Sharmeen Sultana
Department of Botany, University of Dhaka
Dhaka-1000, Bangladesh

Dr. Haseeb Md. Irfanullah
Independent Consultant - Environment, Climate
Change, & Research System, Dhaka, Bangladesh

Prof. M A Bari
House #39, Apt # 102, Road # 12/A
Dhanmondi, Dhaka-1205, Bangladesh

Prof. Dr. Shaikh Bokhtear Uddin
Department of Botany, University of Chittagong
Chittagong-4331, Bangladesh

Prof. Dr. ZN Tahmida Begum
Council Member and Senior Fellow
Bangladesh Academy of Sciences
Dhaka-11207, Bangladesh

Bangladesh Journal of Botany is indexed in the following online scholarly database:

 <p>INTERNATIONAL STANDARD SERIAL NUMBER INTERNATIONAL CENTRE</p>		 <p>Open Journal Systems</p>
	 <p>DIGITAL OBJECT IDENTIFIER</p>	
	 <p>DIRECTORY OF OPEN ACCESS SCHOLARLY RESOURCES</p>	
	 <p>National Center for Biotechnology Information</p>	
		
 <p>Web of Science Group</p>		 <p>SCI JOURNAL</p>
 <p>ORES</p>		

**Bangladesh Journal of Botany is indexed in the following
online scholarly database link**

<https://www.sciencegate.app/source/79159>
<https://www.scijournal.org/impact-factor-ofbangl-j-bot.shtml>
<https://www.journaldata.com/journal/bangladesh-journal-ofbotany.html>
<https://paperpile.com/n/bangladesh-journal-ofbotany-abbreviation/>
<https://www.bioxbio.com/journal/BANGL-JBOT>
<https://www.ncbi.nlm.nih.gov/nlmcatalog/101694350>
<https://portal.issn.org/resource/ISSN/2079-9926>
<https://countryofpapers.com/journal/bangladesh-journal-of-botany>
<https://www.letpub.com/index.php?page=journalapp&view=detail&journalid=1030>
<https://academic-accelerator.com/Impact-Factor-IF/Bangladesh-Journal-of-Botany>
<https://www.editage.com/journal/bangladeshjournal-of-botany>
<https://www.researchgate.net/journal/Bangladesh-Journal-of-Botany-2079-9926>
<https://publons.com/journal/11847/bangladesh-journal-of-botany/>
<https://ores.su/en/journals/bangladeshjournal-of-botany/>
<https://www.scimagojr.com/journalsearch.php?q=16809&tip=sid>
<https://www.resurchify.com/impact/details/16809>
<https://bib-pubdb1.desy.de/record/26490>

BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)

Vol. 54

No. 4

December 2025

CONTENTS

- 885-890 **Abdul Aziz** - *Lyngbya helmetica* Aziz A. sp. nov. and *Scytonema simmeri* Schmidle a new record (Cyanobacteria) from Bangladesh, and their possible uses as medicines and sun screen cream
DOI: <https://doi.org/10.3329/bjb.v54i4.86560>
- 891-900 **Md Riaz Hasan, Fariha Sultana and Mohammad Ashrafal Alam** - Venation-aware hybrid CNN-transformer for fine-grained leaf species identification
DOI: <https://doi.org/10.3329/bjb.v54i4.86616>
- 901-911 **Tingting Xue, Shuhan Meng, Yongli Ren, Fei Lu and Jia Liu** - Overcoming physiological dormancy in *Eucommia ulmoides* seeds: roles of scarification, stratification, and hormonal treatments
DOI: <https://doi.org/10.3329/bjb.v54i4.86571>
- 913-918 **Mst Motmainna, Abdul Shukor Juraimi, Aiman Hanis Jasmi, Duy Le and Mahmudul Hasan** - Weed control efficacy and crop tolerance of Novlect in rice
DOI: <https://doi.org/10.3329/bjb.v54i4.86561>
- 919-925 **Tazrin Kabir Badhon, M Rabiul Islam and Sheikh Julfikar Hossain** - Anxiolytic, hypnotic and anti-seizure activities of *Sonneratia apetala* (Buch.-Ham.) fruit through the GABA_AERGIC and Opioidergic receptors
DOI: <https://doi.org/10.3329/bjb.v54i4.86564>
- 927-934 **Zhengjun Guan, Yimin Huo and Yongji Wang** - Soil properties assessment in long-term cultivated Bt cotton farmland in southern Shanxi, China
DOI: <https://doi.org/10.3329/bjb.v54i4.86565>
- 935-941 **Tania Sultana Popy, H Kausar and SH Habib** - Characterization and divergence analysis of different sunflower genotypes
DOI: <https://doi.org/10.3329/bjb.v54i4.86566>
- 943-948 **Ronia Parvin and Farzana Ashrafi Neela** - Isolation of multidrug-resistant *Acinetobacter calcoaceticus* strains from rhizosphere of tomato
DOI: <https://doi.org/10.3329/bjb.v54i4.86567>
- 949-956 **Yinli Ma, Zhenyu Zhao, Xianju Li, Shuangshuang Liang and Liuxi Wang** - Nitric oxide functions upstream of hydrogen sulfide in strigolactones-triggered stomatal closure in *Arabidopsis thaliana* (L.) Heynh
DOI: <https://doi.org/10.3329/bjb.v54i4.86568>
- 957-966 **Niloy Gain, Abu Yusuf Paik, Md. Ariful Islam Antu, Fayez Uddin Sabbir and Jamilur Rahman** - Genotype-environment interactions of sowing dates on mustard using AMMI and GGE biplot analysis
DOI: <https://doi.org/10.3329/bjb.v54i4.86569>
- 967-975 **M Azizar Rahaman, Mohammad Ashrafal Alam, Md Latiful Bari and Ashfaque Ahmed** - Spatial and vertical variation of rhizosphere soil physicochemical and biological properties in deciduous forests of Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i4.86582>
- 977-986 **Tahsin Beycioğlu, Fatih Killi and Musa Türkmen** - Variation in oil content and fatty acid profiles of peanut cultivars across three mediterranean locations
DOI: <https://doi.org/10.3329/bjb.v54i4.86723>

- 987-993 **Md Hasanuzzaman, Md Farhan Ishrak, Imtiaz Faruk Chowdhury, Md Omar Ali Mollick and Farzana Islam** - Impact of exogenous plant growth regulators and cutting management on the ratooning performance of inbred and hybrid rice
DOI: <https://doi.org/10.3329/bjb.v54i4.86573>
- 995-1004 **Lihong Li, Jian Bai, Ruotong Wang, Yifan Wang, Huijie Sun, Shichao Feng and Wenxuan Du** - GIS-statistical analysis of nutritional quality and regional differentiation of *Auricularia auricula* in Lvliang Mountain
DOI: <https://doi.org/10.3329/bjb.v54i4.86575>
- 1005-1013 **Houas Yamina, Hassani Faical, Abdelli Imane, Ghalem Sarra and Bekkal Bereksi Sohayb** - Investigation of *Ephedra altissima* compounds: histological insights and in silico targeting of dihydrofolate reductase in *Aspergillus flavus*
DOI: <https://doi.org/10.3329/bjb.v54i4.86576>
- 1015-1020 **Khandakar Taki Md Sadi, Mahmud Syed and Md Khalilur Rahman** - Evaluation of nutrient content in soils and tea leaves of the Lalmonirhat district
DOI: <https://doi.org/10.3329/bjb.v54i4.86577>
- 1021-1026 **Pattipaka Bhasker, Gali Suresh, Pattam Keerthi, Preeti Kundu, Monika Janaagal, Vijay Kumar and Pooja Rani** - Optimizing nodulation and pod yield in French bean through strategic molybdenum supplementation
DOI: <https://doi.org/10.3329/bjb.v54i4.86578>
- 1027-1033 **M Pallavi, P Shanthi, BP Maruthi Prasad and BV Sinchana** - Genetic variability and correlation analysis among grain yield and early seedling vigour in rice
DOI: <https://doi.org/10.3329/bjb.v54i4.86579>
- 1035-1044 **Hafidha Boucherit, Abdelkrim Benaradj, Adda Ababou and Okkacha Hasnaoui** - Ecology of *Vella pseudocytisus* subsp. *glabrata* greuter in the Naâma region of Algeria
DOI: <https://doi.org/10.3329/bjb.v54i4.84381>
- 1045-1052 **Belaout Amal, Meziane Stambouli Haciba, Babali Brahim and Ghalem Sarra** - Juniper groves in the region of Tlemcen, western Algeria: biological and ecological aspects
DOI: <https://doi.org/10.3329/bjb.v54i4.84490>
- 1053-1059 **Konok Kanti Das, Pijush Kumar Das, Tania Hossain and Mihir Lal Saha** - Isolation of polyhydroxybutyrate producing bacteria for eco-friendly bioplastic production
DOI: <https://doi.org/10.3329/bjb.v54i4.86640>
- 1061-1067 **Manjulapur Sampath Reddy, P Prasanth, D Laxminarayana and P Saidaiah** - Genetic divergence studies for yield and yield attributes in bitter melon (*Momordica charantia* L.)
DOI: <https://doi.org/10.3329/bjb.v54i4.86587>
- 1069-1075 **V Sujatha, R Saritha And V Manasa** - Effects of organic fertilizers and neem-coated urea on growth, yield, soil nutrient status and cost economics of sesame
DOI: <https://doi.org/10.3329/bjb.v54i4.86588>
- 1077-1082 **Puja Kumari, Tushar Ranjan, Mohammad Ansar, Ravi Ranjan Kumar, Vikash Kumar and Abhijeet Ghatak** - Establishment of a fast and high-throughput protocol for RNA isolation from barley leaves
DOI: <https://doi.org/10.3329/bjb.v54i4.86585>

Short communications

- 1083-1087 **Xian-Song Yang** - Changes in physiological characteristics of ginkgo (*Ginkgo biloba* L.) leaves during natural yellowing
DOI: <https://doi.org/10.3329/bjb.v54i4.86580>
- 1089-1092 **Murad Ali Khan, Sheraz Ahmad Khan, Ijaz Ahmad Khan and Muhammad Tayyab Gul** - Effects of environment friendly weed control methods and yields of garlic (*Allium sativum* L.)
DOI: <https://doi.org/10.3329/bjb.v54i4.86581>

Guidelines to authors

Bangladesh Journal of Botany publishes original research papers related to any field of Plant Sciences from anywhere in the world. But it does **not** publish **review articles** and **check lists**. Each volume of the journal comprises four issues, published in March, June, September and December every year.

Papers should be submitted to the Chief Editor, Bangladesh Journal of Botany, c/o. Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh by post or by email as a Microsoft Word document 2007 version (doc.) file. All correspondence should be made through email address:

<journalbbs2021@gmail.com>, <bdbotsoc@gmail.com>

The manuscript should be type-written with 2.5 cm margins in all sides in A4 size (21.0 × 29.7 cm) offset papers. A manuscript for **Full paper** should not exceed **12 typed pages** in double line space including Figures, Graphs and Tables. In case of **short communication**, the total typed pages should be **6 (six)**. The author will have to submit the paper in two hard copies and in CD, if sent by post.

Full paper/Short communication: The following instructions should be followed during the preparation of a manuscript. On the first page of the manuscript, only the Title of the paper and the name(s) of the author(s) with the address should be typed. In case of more than one author, the 1st address means where the research work was carried out. Identity of the author(s) must not appear anywhere in the manuscript except the 1st page. The corresponding author should be indicated by asterisk. The email address of the corresponding author must be given. On the second page the **Title of the paper, Keywords** and **Abstract** should be given. In case of Full papers, the following pages should contain **Introduction, Materials and Methods, Results and Discussion, Acknowledgement(s)** (if any) and **References**, while for a short communication, the following pages should contain the **Abstract** and the text without any headings but **Acknowledgement** (if any) and **References**. In both cases **Tables and Figures should be given at the end**. Authors must be careful when they reproduce text, tables and illustrations from other sources, to avoid plagiarism. Manuscripts will be subjected to peer review and if needed overviewed by the subject Editor of the Editorial Board. Acceptability as Full paper or Short communication or rejection of a reviewed manuscript is finalized in the Editorial Board Meeting. All accepted papers by the Editorial Board are subjected to editorial changes.

Title: It should be informative, brief and very specific. Please have a look at any published article.

Abstract: Each paper should have an abstract containing the gist of results obtained and should not exceed 150 words.

Text: The text of the article should be clear and precise. Methods already published should be indicated by references. In case of modifications of a method give explicit descriptions. Results should be stated concisely and presented logically referring to tables and graphs. Data of tables and graphs should not be repeated in the text. Simple data may be presented as a text instead of Tables and Figs. Each result should be followed by discussion or interpretation (in any case the Results and Discussion must not be separated) with appropriate reference(s). Concluding remarks (without heading) must be given (that tally with the objective) in the last paragraph. The references in the text should be arranged chronologically. Units of measurement to be used: □E/m²/sec, mg/l, kg/ha, etc.

Tables, Graphs and Figures: Number of tables, graphs and figures should be minimum, giving statistical analysis. The same data should not be used in tables, graphs or figures. **Tables should be typed on separate pages**. Please have a look at any published paper of BJB for the style. Figures and graphs should be drawn with Indian ink on tracing paper and should be properly labelled so that these can be reduced up to half or even less of their original size. Symbols in the graphs should be distinct and labels should be readable.

The photographs should be submitted on glossy paper or in JPEG format. Black and white and coloured photographs are accepted.

References: The number of references should be normally restricted to a **maximum of 25** for a full paper. Majority of them should preferably be of articles **published in the last 10** years. Accepted papers may be referred with the name of the Journal and indicated as "in press". Unpublished

observations and personal communications may be inserted in parentheses in the text. Avoid using abstracts as references. In the text a reference should be given within brackets without a comma between the name of the author and the year. For two or more references, however, each reference should be separated by a comma. References in the Reference section should be arranged alphabetically beginning with the author(s) and followed by the year of the publication, title of the paper, abbreviated name of the journal, volume, number (if any) within brackets, colon and page numbers. Please follow strictly the styles of various references given below:

Barz WH and Oksman-Caldentey KM 2002. Plant biotechnology- an emerging field. *In: Plant biotechnology and transgenic plants*, Oksman-Caldentey KM and Barz WH (Eds), pp. 1-21. Marcel Dekker, New York.

Crawford RMA 1993. Changing perspective of flood-induced injury in higher plants. *In: Plants for the Environment*, Khan MS, Khan MAA, Hadiuzzaman S and Aziz A (Eds), pp. 85-93. Proc. 7th Bot. Conf., 13-14 Dec., 1992. Bangladesh Bot. Soc., Dhaka.

Islam AS and Rashid A 1960. First successful hybridization between the two jute yielding species, *Corchorus olitorius* (Tossa) × *C. capsularis* (White). *Nature* **185**: 258-259.

Alam A, Yeasin M and Ahmed A 2024. Carbon pool and respiration of rhizosphere soils of different mangrove plant species distributed in the Bangladesh Sundarbans. *Bangladesh J. Bot.* **53**(1):131-140.

Khan MS, Haq E, Huq S, Rahman AA, Rashid SMA and Ahmed H (Eds) 1994. *Wetlands of Bangladesh*. Bangladesh Centre Adv. Stud., Dhaka. 91 pp.

Watson JD 1976. *Molecular biology of genes*. WA Benjamin, California. 739 pp.

Abbreviations and contractions: Abbreviations used in the American Journal of Botany should be followed. Abbreviations should have full-stop (e.g., Fig. for Figure) but for contractions there should not have any full-stop (e.g. Figs for Figures, Dr for Doctor, *No.* for *Numero*. Number in English).

Declaration: All authors are requested to sign a declaration form (also available in the website) certifying that the work was carried out by themselves and the contents of the paper were neither published before nor submitted for publication in any other journal, and that they have submitted their articles for consideration by the Editorial Board of the Bangladesh Journal of Botany.

Affiliation: All authors are requested to mention and sign their affiliation to their respective Universities/Institutes.

Additional information: All authors must be members of the Bangladesh Botanical Society at the time of submitting their papers. Annual membership subscription of a local author is **BDT 750.00**. For foreign authors, for a single-author manuscript **US\$ 50** fixed and for multi-authors manuscript **US\$ 35 per author**. Life membership subscription of a local author is **BDT 5000.00**, while for a foreign author it is **US\$ 250.00**. Contributors are given 5 copies of reprints free of cost. For additional reprints the author(s) will be billed at cost price and for this they must inform the Chief Editor in writing, after the paper is accepted for publication. The Society will bear the cost of up to **six printed pages** of the journal including plates, Figs, etc. The author(s) will have to bear the cost for extra printed pages (if any). For multicolour printing, the author should request the Chief Editor after the paper is accepted for publication and the author(s) will have to pay the extra cost.

Payment should be made following an invoice/a demand slip issued by the General Secretary/Chief Editor addressing the Author for correspondence/Institute concerned, via bank account or via Western Union favoring the Savings Bank account of the "**Bangladesh Botanical Society**", Dhaka, Bangladesh. Payment could also be made directly at the office of the Bangladesh Botanical Society, c/o, Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh in local currency on a printed Money Receipt as approved and issued by the Bangladesh Botanical Society.

Website: <www.bdbotsociety.org>

BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)

Vol. 54

No. 1

March 2025

CONTENTS

- 1-6 **Joseph C Paquit** - Impact of seed vigor and water stress on the growth and survival of falcata (*Falcataria falcata* (L.) Greuter & R. Rankin) seedlings
DOI: <https://doi.org/10.3329/bjb.v54i1.80283>
- 7-15 **Huaguang Hu and Zhenming Zhang** - Enhancement of antioxidant enzymes activities and growth performance of *Zoysia macrostachya* Franch. & Sav. subjected to salt heterogeneity
DOI: <https://doi.org/10.3329/bjb.v54i1.80304>
- 17-23 **Yusuf Ziya Kocabaş and Ahmet İlçim** - Rediscovery of the *Salvia haussknechtii* Boiss. (Lamiaceae) in Kahramanmaraş - A lost endemic species of Türkiye
DOI: <https://doi.org/10.3329/bjb.v54i1.80584>
- 25-31 **Susmita R Lisa, Md Al Amin Sikder, Sania Ashrafi, Md Ruhul Kuddus and Mohammad A Rashid** - Exploration of chemico-biological potentials of *Polygonum plebeium* R. Br.
DOI: <https://doi.org/10.3329/bjb.v54i1.80579>
- 33-38 **Rauf Ahmed Bhuiyan, Md. Almujaadade Alfasane and Moniruzzaman Khondker** - New records of phytoplankton from wetlands of Lalmai hill areas of Cumilla: Chlorophyceae
DOI: <https://doi.org/10.3329/bjb.v54i1.80282>
- 39-47 **Md Jannatul Hasan Jihad, Saima Haque, Mohammad Eyakub Ali and Shahrear Ahmad** - Microbial interaction of arbuscular mycorrhizal fungi as a bioenhancer on germination, growth and yield of soybean
DOI: <https://doi.org/10.3329/bjb.v54i1.80589>
- 49-52 **Nowreen Jahan, Ishrat Jahan Bonna and Syeda Sharmeen Sultana** - Heterochromatin distribution pattern in five varieties of *Trichosanthes anguina* L. from Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i1.80309>
- 54-60 **Md Shohag Hossen, Shariful Islam, Md Ismail, Khairul Anam Evan, Md Khondakar Raziur Rahman, Md Arif Hossain, Md Ikramul Hasan, Sanjana Chowdhury Nahin, Sayma Siddique Mitu, Tahmina Jahin, Jannatun Nayeem, Shaikh Bokhtear Uddin and Mohammad Omar Faruque** - Larvicidal activities of 215 medicinal plants extracts against *Aedes aegypti* from Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i1.80737>
- 61-66 **Kholoud Alzahrani, Samyah Jastaniah and Magda Aly** - Multiple plant growth-promoting traits of selective endophytic bacteria from *Plectranthus hijazensis* in Shada Al-Asfal Mountain
DOI: <https://doi.org/10.3329/bjb.v54i1.80308>
- 67-74 **Haibo Wu, Lianchun Wang, Linan Kang, Chao Liu and Mingwei Li** - Identification and growth promotion effect of rhizosphere probiotics in Kiwifruit
DOI: <https://doi.org/10.3329/bjb.v54i1.80749>
- 75-81 **Sujitha Palanisamy and Uma Maheswari Thiyagamoorthy** - Probiotication of finger millet (*Eleusine coracana* L.) porridge for enhancing its function and safety
DOI: <https://doi.org/10.3329/bjb.v54i1.78226>
- 83-90 **Yehia Hazzazi, Uzma Hanif, Zainib Binte Zia, Joty J Muhammed, Nidal Shaban and A El-Shabasy** - Comparative anatomy of *Salvadora oleoides* Decne. and *Salvadora persica* L. from Dera Ghazi Khan, Pakistan
DOI: <https://doi.org/10.3329/bjb.v54i1.80286>
- 91-98 **Rifat Samad** - Effects of waterlogging on ion absorption, translocation and biochemical responses in maize
DOI: <https://doi.org/10.3329/bjb.v54i1.78108>

- 99-104 **Farhana Islam Khan, Israt Jahan Imu, Md. Mahfuzur Rahman, Lipa mondal, Tania Hossain and Nahid Sultana** - Phytochemicals, antibacterial and cytotoxic activities of *Nerium oleander* L.
DOI: <https://doi.org/10.3329/bjb.v54i1.77833>
- 105-111 **Nikhil Thakur, Balbir Singh Dogra, Jasdeep Kaur and Harish BM** - Genetic diversity and morpho-physiological traits in cherry tomato genotypes in north-western Himalayas
DOI: <https://doi.org/10.3329/bjb.v54i1.80310>
- 113-122 **Jingjing Cui, Quanguo Zhang, Lingling Yu, Sikander Khan Tanveer, Guiyuan Zhao and Qiang Guo** - Effects of maize-soybean intercropping on soil respiration
DOI: <https://doi.org/10.3329/bjb.v54i1.80315>
- 123-128 **UH Hashi and Maza Munsur** - Effects of integrated nutrient management on growth and yield of soybean
DOI: <https://doi.org/10.3329/bjb.v54i1.80306>
- 129-136 **Lovely Aktar and Mihir Lal Saha** - Optimization of lipase production by *Bacillus subtilis* 20b
DOI: <https://doi.org/10.3329/bjb.v54i1.80585>
- 137-144 **S Sumitha, V Jegadeeswari and Anok Uchoi** - Evaluation of cocoa clones for yield and quality as intercrop in coconut gardens of western ghats, India
DOI: <https://doi.org/10.3329/bjb.v54i1.80592>
- 145-152 **Bekkal Brikci Sohayb, Abdelli Imane and Hassani Faiçal** - Importance of essential oils for the biocontrol of *Tylenchulus semipenetrans* nematode populations through molecular modeling methods
DOI: <https://doi.org/10.3329/bjb.v54i1.80591>
- 153-157 **Anubha Saini, Santosh Kumari, Balbir Singh Dogra, Raj Saini and Shivali Dhiman** - Effects of integrated nutrient management on different horticultural traits in onion
DOI: <https://doi.org/10.3329/bjb.v54i1.80590>
- 159-166 **Rahul Banik, Navnit Kumar, Gangadhar Nanda, Barsha Mansingh, Pranjeet Kalita, Sumit Sow, Shivani Ranjan, Mahmoud F Seleiman and Muhammad Nazim** - Impact of nitrogen levels and varieties on growth and fodder yield of maize
DOI: <https://doi.org/10.3329/bjb.v54i1.80703>

Short communications

- 167-170 **Md Zakir Sultan, Mohammad Abdul Matin, Rabeya Miazi and Mohammad A. Rashid** - Studies on some antiatherosclerotic medicinal plants of Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i1.80312>
- 171-174 **Jingjing Cui, Zhihua Zhen, Lingling Yu, Lina Liang, Wei Song, Quanguo Zhang and Qiang Guo** - Feasibility of different maize varieties as silage in China
DOI: <https://doi.org/10.3329/bjb.v54i1.80738>
- 175-176 **Sonali Parwan, Harender Raj Gautam, Narender Kumar Bharat, A Aravinthkumar, Sakshi Suchita and Shikha Sharma** - Potential of epiphytic yeasts against *Alternaria brassicicola* causing alternaria leaf spot of cauliflower
DOI: <https://doi.org/10.3329/bjb.v54i1.80610>

BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)

Vol. 54

No. 2

June 2025

CONTENTS

- 177-183 **Sanu Raja Maharjan, Deepa Dhital, Lal Bahadur Thapa, Ram Kailash Prasad Yadav and Chandra Prasad Pokhrel** - Forest characteristics and carbon stock along an elevation gradient in Phulchoki Hill, Nepal
DOI: <https://doi.org/10.3329/bjb.v54i2.81655>
- 185-190 **Mst Motmainna, Abdul Shukor Juraimi, Aiman Hanis Jasmi, Duy Le and Mahmudul Hasan** - Effects of Almix 20WP on selected sedges and broadleaf weeds in rice
DOI: <https://doi.org/10.3329/bjb.v54i2.82255>
- 191-198 **Serkan Cayit and Mehmet Arif Özyazici** - Growth, yield and quality of some pearl millet [*Pennisetum glaucum* (L.) R. Br.] genotypes grown in the semi-arid climate zone in Türkiye
DOI: <https://doi.org/10.3329/bjb.v54i2.81698>
- 199-209 **Md Siddiq Hasan, Sheikh Sunzid Ahmed, SM Nasir Uddin, Momtaz Begum and M Oliur Rahman** - Deciphering morphometric relationships of Anacardiaceae (R. Br.) Lindl. in Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i2.82020>
- 211-219 **Rohit Gangwar, Krishna S Tomar, Ajay Kumar Singh, Rakesh Kumar and Vijay Sharma** - Genetic diversity analysis in marigold (*Tagetes* spp.)
DOI: <https://doi.org/10.3329/bjb.v54i2.82441>
- 221-231 **Vikas Gupta and Meenakshi Gupta** - Effects of sowing environments and n-levels on dry matter partitioning and phenological stages in wheat varieties of N-W Himalayas, India
DOI: <https://doi.org/10.3329/bjb.v54i2.81651>
- 233-238 **Chaw Way Hai, Pranti Biswas Esha and Mohammad Musharof Hossain** - Morphomolecular approach to identify *Flavodon flavus* (Kl.) Ryv.: A potential macrofungi of Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i2.81697>
- 239-244 **Rukiye Boran Gulen, Aysel Ugur and Nurdan Sarac** - *In vitro* determination of the skin anti-aging potential of *Centaurea urvillei* Dc. Subsp. *Armata* Wagenitz
DOI: <https://doi.org/10.3329/bjb.v54i2.82023>
- 245-252 **Hong Lang, Heng Liu and Mingliang Jiang** - Effects of melatonin treatment on seed germination of leaf chicory (*Cichorium intybus*) under salt stress
DOI: <https://doi.org/10.3329/bjb.v54i2.82027>
- 253-260 **Nhi Thi Hoang Ho, An Thien Tran, Ngoc Thi Nhu Le, Han Ngoc Ho and Hai Thi Hong Truong** - Distribution of *Anoectochilus roxburghii* (Wall.) Lindl in Bach Ma National Park of Central Vietnam
DOI: <https://doi.org/10.3329/bjb.v54i2.82289>
- 261-267 **Pradip Kumar Patel, Sameer Kumar Singh, Kamal Ravi Sharma, Umesh Chandra and Vijay Kumar Mishra** - Efficacy of some phyto extracts and insecticides for the management of aphid [*Lipaphis erysimi* (Kaltenbach)] in mustard
DOI: <https://doi.org/10.3329/bjb.v54i2.82256>
- 269-276 **Seema Dahiya, Meena Sewhag, Dharam Bir Yadav, Rajbir Garg, Ankur Chaudhary, Satpal Singh and Naresh Kumar** - Characterization of herbicide used and factors responsible for metsulfuron-methyl resistance in *Rumex dentatus* in wheat field
DOI: <https://doi.org/10.3329/bjb.v54i2.82485>
- 277-284 **Abhijit Mandal, Teekam Singh, Ayan Sarkar, Anchal Dass, Manoj Chaudhary and Smruti Ranjan Padhan** - Effects of irrigation regimes and nitrogen management practices on wheat productivity, soil health, and CO₂ equivalent GHG emissions in rainfed environments
DOI: <https://doi.org/10.3329/bjb.v54i2.82294>

- 285-291 **AMM Golam Adam, Md Sharif Mia and Umma Fatema Shahjadee** - Influence of NAA on growth, yield attributes and yield of BRR1 dhan-48 (*Oryza sativa* L.)
DOI: <https://doi.org/10.3329/bjb.v54i2.82296>
- 293-300 **SR Maneesha and Mathala J Gupta** - Prospects of pineapple cultivation under polyhouse in coastal zones of India
DOI: <https://doi.org/10.3329/bjb.v54i2.82298>
- 301-309 **Hayal Akyildirim Beğen and Özgür Eminağaoğlu** - Revalidation of *Hedlundia caucasica* (Zinserl.) Mezhenkyj based on molecular and morphological evidence
DOI: <https://doi.org/10.3329/bjb.v54i2.82314>
- 311-318 **K Ashok Kumar and Dillip Kumar Swain** - Impacts of split application of organic fertilizer on nitrogen uptake and use efficiency in direct-seeded rice
DOI: <https://doi.org/10.3329/bjb.v54i2.82025>
- 319-324 **Jasdeep Kaur, BS Dogra, Nikhil Thakur and Rishabh Kumar** - Genetic potential and trait analysis of garlic (*Allium sativum* L.) landraces from the lower western Himalayas
DOI: <https://doi.org/10.3329/bjb.v54i2.82026>
- 325-335 **Nan Deng, Qingan Song and Yuxin Tian** - Geometric morphologic variation of *Dalbergia hupeana* Hance leaves and its response to different spatial structures
DOI: <https://doi.org/10.3329/bjb.v54i2.82322>
- 337-348 **Qingjun Zhao** - Impact of climate-resilient crop varieties on sustainable agriculture: an analysis of physiological and yield performance
DOI: <https://doi.org/10.3329/bjb.v54i2.82299>
- 349-359 **Vivek Bhanwala, Bijender Singh Beniwal, Sonu Sheoran, OP Sheoran and Anita Kumari** - Impact of time and level of pruning on growth, flowering and yield characteristics of rose
DOI: <https://doi.org/10.3329/bjb.v54i2.81658>
- 361-368 **Devi Lal Kikraliya, UN Shukla, Ramesh, Anuj Kumar, Krishna Saharan, KK Bijarnia, Sarita and AK Meena** - Weed suppression, grain yield and economics of wheat affected by weed management practices
DOI: <https://doi.org/10.3329/bjb.v54i2.82287>
- 369-376 **Yihai Lu, Bing Zhou, Wanying Liao, Qiujie Wu, Wenzhen Su and Guirong Li** - Effects of grape (*Vitis vinifera* L.) R2R3-Myb transcription factor, MYB6 on drought stress tolerance in transgenic tobacco
DOI: <https://doi.org/10.3329/bjb.v54i2.82430>
- 377-387 **Lina Jiang, Liangzhao Zhang and Junguo Zhou** - Impact of pumpkin rootstock on DNA methylation and epigenetic profile of grafted self-bred cucumber progeny
DOI: <https://doi.org/10.3329/bjb.v54i2.82359>

Short communications

- 389-392 **Mohammad Maksudul Hassan, Naimul Hasan, Iqbal Shahriar Khan, Md Ekramul Hasan, Mohammad Tohidul Amin and Toshinobu Tokumoto** - Effects of plant growth regulators on eelgrass (*Zostera marina* L.) germination
DOI: <https://doi.org/10.3329/bjb.v54i2.82325>
- 393-396 **Mehmet Köten and Meryem Kuzucu** - Estimation of some chemical and nutritional characteristics of *Pistacia terebinthus* L. fruits
DOI: <https://doi.org/10.3329/bjb.v54i2.78108>
- 397-401 **K Raja and D Thirusendura Selvi** - Evaluation of seed storage potential in rice landraces, India
DOI: <https://doi.org/10.3329/bjb.v54i2.80313>
- 403-407 **S Geethanjali, N Saranya, T Uma Maheshwari and P Jeyaprakash** - Impact of storage on variations in volatiles, essential phytonutrients and minerals in aggregatum onion
DOI: <https://doi.org/10.3329/bjb.v54i2.80608>

BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)

Vol. 54

No. 3

September 2025

CONTENTS

- 409-417 **Ruimin Fu, Hong Zhang, Xue Yang, Wei Tang, Tieqi Xia, Ding Wang and Wuling Chen** - Optimization of extraction technique of polysaccharide from staunton vine (PSS) by response surface analysis
DOI: <https://doi.org/10.3329/bjb.v54i3.84615>
- 419-424 **Mehmet Tarhan and Behiye Tuba Bicer** - Investigation of LD₅₀, GR₅₀ and seedling development in sodium azide and ethyl methane sulfonate treatments of chickpea (*Cicer arietinum* L.)
DOI: <https://doi.org/10.3329/bjb.v54i3.84331>
- 425-431 **Mst Motmainna, Abdul Shukor Juraimi, Norhayu Binti Asib, Akm Mominul Islam, Muhammad Saiful Ahmad-Hamdani And Mahmudul Hasan** - Identification of phytochemicals from *Borreria alata* (Aubl.) DC. using LC-MS-QTOF
DOI: <https://doi.org/10.3329/bjb.v54i3.84502>
- 433-439 **Md Omar Sha Rafi, Nusrat Tabassum Shristy, Sauda Sultana Mimi, Sadia Afrin Chhanda, Md Hasanur Rahman, Mohammad Sharifur Rahman, Mohammad A Rashid and Tanvir Muslim** - Antioxidant, thrombolytic, cytotoxic and membrane stabilizing activities and fatty acid composition of *Acmella calva* (DC.) flower
DOI: <https://doi.org/10.3329/bjb.v54i3.84427>
- 441-446 **B Spoorthi, GK Naidu, SK Deshpande, UV Mummigatti, G Somanagouda, S Huilgol, R Channakeshava and H Banu** - Direct and indirect effects of component traits on soybean seed yield under seasonal variation
DOI: <https://doi.org/10.3329/bjb.v54i3.81661>
- 447-453 **Anjali Kumari, Balbir Singh Dogra, Shivali Dhiman and Ankita** - Exploring the impact of heterosis in brinjal (*Solanum melongena* L.) cultivation and yield quality
DOI: <https://doi.org/10.3329/bjb.v54i3.82028>
- 455-463 **MM Rahaman, MK Hossain and Nazmul Alam** - Genetic divergence among bottle gourd genotypes
DOI: <https://doi.org/10.3329/bjb.v54i3.84424>
- 465-468 **Abira Khan, Md Ruhul Kuddus, Mohammad A Rashid, Md Sakhawat Hossain and Md Aftab Uddin** - Isolation and characterization of lantanillic acid from *Lantana camara* L. in Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i3.84579>
- 469-476 **Ke Xu, Weifu Zhang and Manli Zheng** - Economic impacts of drying service layout, technology and policy subsidies on large-scale rice farming
DOI: <https://doi.org/10.3329/bjb.v54i3.84368>
- 477-482 **Mst Samayun Arefin, Mst Ananya Khatun, Md Mobinul Islam, Md Ahsan Habib, Muhammad Fazle Rabbee and Md Mohidul Hasan** - Bio-rational management of anthracnose of banana with indigenous plant oils
DOI: <https://doi.org/10.3329/bjb.v54i3.84332>
- 483-489 **Dipa Rani Roy, Tania Hossain and Mihir Lal Saha** - Isolation of biodegradable polymer producing bacteria from waste materials of Dhaka Metropolitan City
DOI: <https://doi.org/10.3329/bjb.v54i3.84334>
- 491-497 **Ajay Singh, Shiv Pratap Singh, Nikhil Thakur and Jasdeep Kaur** - Evaluation of genetic divergence in radish (*Raphanus sativus* L.) germplasm using multivariate approaches in North-Western Himalayas
DOI: <https://doi.org/10.3329/bjb.v54i3.82315>
- 499-508 **Yaoxi Liu, Danfeng Bai, Taishan Li, Han Zhao, Huafeng Yue, Gaopu Zhu and Mengmeng Zhang** - Effects of water stress on photosynthesis and biomass accumulation of kernel apricot at seeding stage
DOI: <https://doi.org/10.3329/bjb.v54i3.84486>
- 509-517 **Xiaoli Gao, Xuhui Yang and Jian Bai** - Impact of environmental factors on millet quality in the eastern and western regions on the Lyuliang Mountains
DOI: <https://doi.org/10.3329/bjb.v54i3.84574>

- 519-524 **Santosh A Jaybhay, Suresha PG, Sujata Tetali and Manoj D Oak** - Evaluation of elite soybean varieties for suitability in contingent summer seed production
DOI: <https://doi.org/10.3329/bjb.v54i3.84399>
- 525-530 **Mahin Afroz, Syeda Sharmeen Sultana and Rakha Hari Sarker** - Genetic diversity and relationship among six wild *Corchorus* species by RAPD and SSR analysis
DOI: <https://doi.org/10.3329/bjb.v54i3.84401>
- 531-536 **Rajesh Mor, Gs Rana, Santosh Kumari, Hardeep, Sonu Kumar and MI Jat** - Impact of foliar application of boron, iron and magnesium on yield and seed quality of Guava cv. Hisar Surkha
DOI: <https://doi.org/10.3329/bjb.v54i3.84430>
- 537-545 **Norah A Alyahya, Sulaiman Alrumman and Mahmoud Moustafa** - Genetic diversity in *Rumex nervosus* Vahl from Sarawat Mountains of Saudi Arabia
DOI: <https://doi.org/10.3329/bjb.v54i3.84618>
- 547-553 **Belgin Coşge Şenkal** - Elemental content, essential oil components and usage areas of the components of two *Salvia* spp.
DOI: <https://doi.org/10.3329/bjb.v54i3.84365>
- 555-562 **Subrota Kumer Pramanik, Nusrat Zahan, Md Abu Hasan and Sripati Sikder** - Growth, yield and yield attributes of mustard varieties as influenced by different growing conditions
DOI: <https://doi.org/10.3329/bjb.v54i3.84398>
- 563-569 **Farjana Akter, Tania Hossain, Lipa Mondal and Farhana Islam Khan** - Antibacterial and cytotoxic activities of bioactive compounds from bacteria isolated from Buriganga river water
DOI: <https://doi.org/10.3329/bjb.v54i3.84377>
- 571-579 **Ruiting Xue, Dong Li and Jian Bai** - Analysis of nutrients and flavor of jujube and their suitability as high value food in industrial development, Lvliang city, China
DOI: <https://doi.org/10.3329/bjb.v54i3.84589>
- 581-585 **Anamika Pandey, Smita Singh, Akhilesh Kumar, KS Baghel, Namrata Jain, Ruchi Rajpoot, Jagriti Pandey and Manju Shukla** - Performance of herbicides for effective weed management in wheat
DOI: <https://doi.org/10.3329/bjb.v54i3.84616>
- 587-592 **Sangita Sharma** - Weather based wheat yield prediction model for the state of Himachal Pradesh, India
DOI: <https://doi.org/10.3329/bjb.v54i3.84425>
- 593-599 **Sirajis Salekin, Sania Ashrafi, Monira Ahsan, Choudhury Mahmood Hasan, Sheikh Nazrul Islam and Mohammad Mehedi Masud** - Isolation of quinolone alkaloid with potential anti-diabetic activity from *Abroma augustum* (L.) L.F
DOI: <https://doi.org/10.3329/bjb.v54i3.84333>
- 601-609 **MM Rahaman, MK Hossain and Nazmul Alam** - Estimation of combining ability and heterosis in bottle gourd
DOI: <https://doi.org/10.3329/bjb.v54i3.84575>
- 611-617 **Arati Yadawad and RS Bhat** - Genotype - environment interaction analysis for yield stability and resistance to *Aspergillus flavus* in groundnut
DOI: <https://doi.org/10.3329/bjb.v54i3.84337>

Short communications

- 619-622 **Tahmina Sultana Juthi, Md Ruhul Kuddus, Mohammad Zashim Uddin, Md Abul Hassan and Mohammad A Rashid** - Evaluation of thrombolytic activity of three ethnomedicinal plants in Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i3.84491>
- 623-626 **Huiying Liu and Xiaoyang Zeng** - Non-linear effect of water-table drawdown on water and nitrogen use efficiencies of *Carex muliensis* Hand.-Mazz. in the zoige alpine wetland in Tibetan Plateau
DOI: <https://doi.org/10.3329/bjb.v54i3.84429>
- 627-630 **Monika Sood, Neeraj Gupta, Julie D Bandral and RK Salgotra** - Proximate constituents of germinated brown rice based gluten free cookies
DOI: <https://doi.org/10.3329/bjb.v54i3.84431>

BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)

Vol. 54

No. 3 (Special)

September 2025

CONTENTS

- 631-644 **Zhifan Zhang, Wenjie Bian, Jun Wan, Taibo Liang, Li Wang, Yi Li, Kui Ding, Bo Wu, Wenmin Chen, Yu Chen, Hongxu Dong and Mengjiao Ding** - Acidification indices and organic carbon characteristics of acidic soil with different straw incorporation rates
DOI: <https://doi.org/10.3329/bjb.v54i30.85186>
- 645-655 **Jingran Yu, Wangsuo Liu and Rifu Bada** - Microbial community structure during the restoration of Wuliangshuai sediment
DOI: <https://doi.org/10.3329/bjb.v54i30.85100>
- 657-665 **Xiaoxi Guan, Xiong Yan, Wenzhao Li, Hui Tan and Changling Sui** - Combined effects of soil amendents and effective microbial agents on container seedling growth and incidence of citrus canker
DOI: <https://doi.org/10.3329/bjb.v54i30.85102>
- 667-676 **Xin Zhang, Bo Wang, Qiang Zhang, Donglian Zhao and Jing Liu** - Study on soil reinforcement characteristics of *Artemisia nigra* after root damage in central and western inner mongolia
DOI: <https://doi.org/10.3329/bjb.v54i30.85103>
- 677-685 **Bo Qin, Xin Huang, Liming Tang, Yaoheng Huang, Rihong Jiang, Kaidao Sun, Yiqian Ju and Gangmin Zhang** - Characterization of the *Lagerstroemia suprareticulata* chloroplast genome and comparative analysis of the crape myrtle
DOI: <https://doi.org/10.3329/bjb.v54i30.85105>
- 687-693 **Petr Konvalina, Thi Giang Nguyen, Trong Nghia Hoang, Andrea Bohatá, Kristýna Perná, Jana Lencová, Ivana Capouchová, Petr Dvořák, Pavel Procházka, Miloslava Kavková and Marek Kopecký** - Effects of biological treatments on production and quality parameters of soybean (*Glycine max* L. Merrill)
DOI: <https://doi.org/10.3329/bjb.v54i30.85108>
- 695-702 **Wenquan Zhang, Qian Dai, Dou Hong, Rulai He and Lin Zhu** - Effects of arbuscular mycorrhizal fungi on biomass and disease-resistance enzyme activities of *Actinidia arguta* against canker
DOI: <https://doi.org/10.3329/bjb.v54i30.85110>
- 703-710 **Yulan Liu, Ying Xu, Tianyuan Yang, Lan Zhou, Xin Sui and Long Jiang** - Mechanized kernel harvesting potential in isogenic corn doubled haploid (DH) lines
DOI: <https://doi.org/10.3329/bjb.v54i30.85112>
- 711-719 **Chaojun Xu, Zhaogang Fu and Haiying Liu** - Driving factors of vegetation cover change in Beibu Gulf Urban Agglomeration
DOI: <https://doi.org/10.3329/bjb.v54i30.85114>
- 721-729 **Zhaobo Li** - Functional characterization and salt-stress-induced expression analysis of soybean *gmcyp86a1s* genes
DOI: <https://doi.org/10.3329/bjb.v54i30.85115>
- 731-739 **Wenyou Li, Jiacan Liang, Qing Liu, Guanghua Liu and Xiaogang Zhou** - Isolation and application of a lactic acid bacterium from *Pennisetum giganteum* to improve the silage quality of king grass
DOI: <https://doi.org/10.3329/bjb.v54i30.85116>
- 741-748 **Aorui Li, Zhimin Zhang, Tianyu Sun, Sheng Han, Yaning He, Huimin Fan, Hui Wang, Jiping Chen, Chi Wang and Huawei Ji** - Sustainable management of surface substrate layer based on soil microbial diversity during wheat growth season
DOI: <https://doi.org/10.3329/bjb.v54i30.85117>

- 749-753 **Xiaojuan Li and Jianxiu Li** - *Deparia chingii* (Athyraceae) - a new species was reported from China
DOI: <https://doi.org/10.3329/bjb.v54i30.85118>
- 755-760 **Xiaojuan Li, Meiling Zhang and Jianxiu Li** - A new species of *Dryopteris* (Dryopteridaceae) from China
DOI: <https://doi.org/10.3329/bjb.v54i30.85119>
- 761-768 **Bo Wang and Hao Wang** - Effects of mulching with different specifications of plastic film on the growth of fresh-eating maize
DOI: <https://doi.org/10.3329/bjb.v54i30.85120>
- 769-781 **Chuansheng Cheng** - Effects of different soil amendments on soil physical and chemical properties and oil sunflower yield in saline-sodic in Northern Shaanxi China
DOI: <https://doi.org/10.3329/bjb.v54i30.85121>
- 783-790 **Wen He, Dongbo Zhou, Yu Peng, Dong Wang, Yukun Liu, Keqin Li, Junfeng Chen and Linjian Dai** - Effects of exogenous microbial additives to improve tobacco leaf quality
DOI: <https://doi.org/10.3329/bjb.v54i30.85128>
- 791-796 **Qili Hao and Tingyu Zhang** - Prediction of potential distributions of *Ranunculus ternatus* Thunb. based on maxent model
DOI: <https://doi.org/10.3329/bjb.v54i30.85123>
- 797-804 **Xin Li, Lu Zhao, Guoqing Cui, Liangli Li, Tingyu Zhang and Shan Liu** - Evaluation methods to determine soil and water conservation status in different ecosystems
DOI: <https://doi.org/10.3329/bjb.v54i30.85124>
- 805-809 **Tianyuan Yang, Meiqi Rong, Chen Zhang, Jianbo Fei, Zhaobo Li, Xilin Ning, Ya Liang Liu, Hai Yan Yu, Baimig Yang and Long Jiang** - Assessment of hybrid vigor in yield traits of hybrid maize
DOI: <https://doi.org/10.3329/bjb.v54i30.85127>
- 811-821 **Danli Peng, Lei Qiao, Wei Yan, Lang Xue, Shenggang Yang, Jiaqi Yu, Nanping Zhang, Juxiang Kuang, Gang Wang and Guanghua Yan** - Purification strategies and biological evaluation of phenylpropanoids from *Lonicera macranthoides* Hand-Mazz
DOI: <https://doi.org/10.3329/bjb.v54i30.85354>
- 823-829 **Jing Zhang and Yilun Dai** - Field evapotranspiration and water consumption of dryland spring corn
DOI: <https://doi.org/10.3329/bjb.v54i30.85355>
- 831-840 **Mengjiao Ding, Hao Shu, Ziheng Nong, Minghong Liu, Taibo Liang, Li Zhang, Li Wang, Yong Wei, Wenmin Chen, Bo Tan, Yi Li, Ziwei Wang and Jun Wan** - Screening of formula for growing *Stropharia rugosoannulata* using tobacco stalks as a substitute and its impact on soil properties for mushroom cultivation
DOI: <https://doi.org/10.3329/bjb.v54i30.85187>
- 841-853 **Chenguang Ma, Longfei Xia, Yang Wei, Jian Li, Zhezhemu, Zhaorong Zhang, Hailan Shi and Yan Xu** - Effects of projected climate change on spring maize in rain-fed agriculture system of the Loess Plateau
DOI: <https://doi.org/10.3329/bjb.v54i30.85188>
- 855-864 **Na Wang, Zhe Liu, Lu Nan and Yuhu Luo** - Effects of different concentrations of lead and cadmium stress on spinach growth and physiology
DOI: <https://doi.org/10.3329/bjb.v54i30.85163>
- 865-873 **Shenglan Ye, Hui Kong and Yang Zhang** - Effects of combined microbial and plant remediation on water transport and nutrient uptake in heavy metalpolluted mining areas
DOI: <https://doi.org/10.3329/bjb.v54i30.85356>
- 875-883 **Hanqi Gao, Min Kang, Yuxiang Zhu, Yonggui Chen and Hongchao Li** - Prediction of maize chlorophyll nitrogen content using visible and near-infrared spectroscopy
DOI: <https://doi.org/10.3329/bjb.v54i30.85168>

BANGLADESH JOURNAL OF BOTANY
(Bangladesh J. Bot.)

Vol. 54

No. 4

December 2025

CONTENTS

- 885-890 **Abdul Aziz** - *Lyngbya helmetica* Aziz A. sp. nov. and *Scytonema simmeri* Schmidle a new record (Cyanobacteria) from Bangladesh, and their possible uses as medicines and sun screen cream
DOI: <https://doi.org/10.3329/bjb.v54i4.86560>
- 891-900 **Md Riaz Hasan, Fariha Sultana and Mohammad Ashraful Alam** - Venation-aware hybrid CNN-transformer for fine-grained leaf species identification
DOI: <https://doi.org/10.3329/bjb.v54i4.86616>
- 901-911 **Tingting Xue, Shuhan Meng, Yongli Ren, Fei Lu and Jia Liu** - Overcoming physiological dormancy in *Eucommia ulmoides* seeds: roles of scarification, stratification, and hormonal treatments
DOI: <https://doi.org/10.3329/bjb.v54i4.86571>
- 913-918 **Mst Motmainna, Abdul Shukor Juraimi, Aiman Hanis Jasmi, Duy Le and Mahmudul Hasan** - Weed control efficacy and crop tolerance of Novlect in rice
DOI: <https://doi.org/10.3329/bjb.v54i4.86561>
- 919-925 **Tazrin Kabir Badhon, M Rabiul Islam and Sheikh Julfikar Hossain** - Anxiolytic, hypnotic and anti-seizure activities of *Sonneratia apetala* (Buch.-Ham.) fruit through the GABA_AERGIC and Opioidergic receptors
DOI: <https://doi.org/10.3329/bjb.v54i4.86564>
- 927-934 **Zhengjun Guan, Yimin Huo and Yongji Wang** - Soil properties assessment in long-term cultivated Bt cotton farmland in southern Shanxi, China
DOI: <https://doi.org/10.3329/bjb.v54i4.86565>
- 935-941 **Tania Sultana Popy, H Kausar and SH Habib** - Characterization and divergence analysis of different sunflower genotypes
DOI: <https://doi.org/10.3329/bjb.v54i4.86566>
- 943-948 **Ronia Parvin and Farzana Ashrafi Neela** - Isolation of multidrug-resistant *Acinetobacter calcoaceticus* strains from rhizosphere of tomato
DOI: <https://doi.org/10.3329/bjb.v54i4.86567>
- 949-956 **Yinli Ma, Zhenyu Zhao, Xianju Li, Shuangshuang Liang and Liuxi Wang** - Nitric oxide functions upstream of hydrogen sulfide in strigolactones-triggered stomatal closure in *Arabidopsis thaliana* (L.) Heynh
DOI: <https://doi.org/10.3329/bjb.v54i4.86568>
- 957-966 **Niloy Gain, Abu Yusuf Paik, Md. Ariful Islam Antu, Fayeze Uddin Sabbir and Jamilur Rahman** - Genotype-environment interactions of sowing dates on mustard using AMMI and GGE biplot analysis
DOI: <https://doi.org/10.3329/bjb.v54i4.86569>
- 967-975 **M Azizar Rahaman, Mohammad Ashraful Alam, Md Latiful Bari and Ashfaque Ahmed** - Spatial and vertical variation of rhizosphere soil physicochemical and biological properties in deciduous forests of Bangladesh
DOI: <https://doi.org/10.3329/bjb.v54i4.86582>
- 977-986 **Tahsin Beycioğlu, Fatih Killi and Musa Türkmen** - Variation in oil content and fatty acid profiles of peanut cultivars across three mediterranean locations
DOI: <https://doi.org/10.3329/bjb.v54i4.86572>
- 987-993 **Md Hasanuzzaman, Md Farhan Ishrak, Imtiaz Faruk Chowdhury, Md Omar Ali Mollick and Farzana Islam** - Impact of exogenous plant growth regulators and cutting management on the ratooning performance of inbred and hybrid rice
DOI: <https://doi.org/10.3329/bjb.v54i4.86573>

The Society gratefully acknowledges the financial support received from the **Ministry of Science and Technology**, Government of the People's Republic of Bangladesh and the **University of Dhaka** towards the publication of this Journal.

- 995-1004 **Lihong Li, Jian Bai, Ruotong Wang, Yifan Wang, Huijie Sun, Shichao Feng and Wenxuan Du** - GIS-statistical analysis of nutritional quality and regional differentiation of *Auricularia auricula* in Lyliang Mountain
DOI: <https://doi.org/10.3329/bjb.v54i4.86575>
- 1005-1013 **Houas Yamina, Hassani Faical, Abdelli Imane, Ghalem Sarra and Bekkal Bereksi Sohayb** - Investigation of *Ephedra altissima* compounds: histological insights and in silico targeting of dihydrofolate reductase in *Aspergillus flavus*
DOI: <https://doi.org/10.3329/bjb.v54i4.86576>
- 1015-1020 **Khandakar Taki Md Sadi, Mahmud Syed and Md Khalilur Rahman** - Evaluation of nutrient content in soils and tea leaves of the Lalmonirhat district
DOI: <https://doi.org/10.3329/bjb.v54i4.86577>
- 1021-1026 **Pattipaka Bhasker, Gali Suresh, Pattam Keerthi, Preeti Kundu, Monika Janaagal, Vijay Kumar and Pooja Rani** - Optimizing nodulation and pod yield in French bean through strategic molybdenum supplementation
DOI: <https://doi.org/10.3329/bjb.v54i4.86578>
- 1027-1033 **M Pallavi, P Shanthi, BP Maruthi Prasad and BV Sinchana** - Genetic variability and correlation analysis among grain yield and early seedling vigour in rice
DOI: <https://doi.org/10.3329/bjb.v54i4.86579>
- 1035-1044 **Hafidha Boucherit, Abdelkrim Benaradj, Adda Ababou and Okkacha Hasnaoui** - Ecology of *Vella pseudocytisus* subsp. *glabrata* greuter in the Naâma region of Algeria
DOI: <https://doi.org/10.3329/bjb.v54i4.84381>
- 1045-1052 **Belaout Amal, Meziane Stambouli Haciba, Babali Brahim and Ghalem Sarra** - Juniper groves in the region of Tlemcen, western Algeria: biological and ecological aspects
DOI: <https://doi.org/10.3329/bjb.v54i4.84490>
- 1053-1059 **Konok Kanti Das, Pijush Kumar Das, Tania Hossain and Mihir Lal Saha** - Isolation of polyhydroxybutyrate producing bacteria for eco-friendly bioplastic production
DOI: <https://doi.org/10.3329/bjb.v54i4.86640>
- 1061-1067 **Manjulapur Sampath Reddy, P Prasanth, D Laxminarayana and P Saidaiah** - Genetic divergence studies for yield and yield attributes in bitter melon (*Momordica charantia* L.)
DOI: <https://doi.org/10.3329/bjb.v54i4.86587>
- 1069-1075 **V Sujatha, R Saritha And V Manasa** - Effects of organic fertilizers and neem-coated urea on growth, yield, soil nutrient status and cost economics of sesame
DOI: <https://doi.org/10.3329/bjb.v54i4.86588>
- 1077-1082 **Puja Kumari, Tushar Ranjan, Mohammad Ansar, Ravi Ranjan Kumar, Vikash Kumar and Abhijeet Ghatak** - Establishment of a fast and high-throughput protocol for RNA isolation from barley leaves
DOI: <https://doi.org/10.3329/bjb.v54i4.86723>
- Short communications**
- 1083-1087 **Xian-Song Yang** - Changes in physiological characteristics of ginkgo (*Ginkgo biloba* L.) leaves during natural yellowing
DOI: <https://doi.org/10.3329/bjb.v54i4.86580>
- 1089-1092 **Murad Ali Khan, Sheraz Ahmad Khan, Ijaz Ahmad Khan and Muhammad Tayyab Gul** - Effects of environment friendly weed control methods and yields of garlic (*Allium sativum* L.)
DOI: <https://doi.org/10.3329/bjb.v54i4.86581>