



2025 Volume 53 Issue 3

# NOTULAE BOTANICAE HORTI AGROBOTANICI CLUJ-NAPOCA





# NOTULAE BOTANICAE HORTI AGROBOTANICI CLUJ-NAPOCA

2025 Volume 53, Issue 3

July-September

*A journal of the University of Agricultural Sciences and Veterinary Medicine,  
Cluj-Napoca, Romania*

***Published by AcademicPres on behalf of***

*University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca*

## **Abstracted and/or indexed:**

- Clarivate, [Master Journal List](http://mjl.clarivate.com/) - SCIE, JCR, <http://mjl.clarivate.com/> (IF 2024=1.3)
- Scopus - Elsevier, <https://www.scopus.com/sourceid/17700156420> (CiteScore 2024=2.6)
- ProQuest, <http://www.proquest.com/>
- Centre for Agriculture and Biosciences International (CABI), <https://www.cabdirect.org/>
- Chemical Abstracts Service (CAS), <https://www.cas.org/>
- Bielefeld Academic Search Engine (BASE), <http://www.base-search.net>
- Google Scholar, <http://scholar.google.com>
- British Library Direct (BLD), <http://explore.bl.uk/>
- Mendeley, <https://www.mendeley.com>
- The European Library, <http://www.theeuropeanlibrary.org>
- Harvard Library, <http://hollis.harvard.edu>
- Scilit, <https://www.scilit.net/>
- Open Archives Initiative Protocol for Metadata Harvesting (OAIster), <http://www.oaister.org>
- Ulrich's Periodicals Directory, <http://www.ulrichsweb.com>
- Elton B Stephens Company (EBSCO), <http://www.ebscohost.com>
- Information Matrix for the Analysis of Journals (MIAR), <http://miar.ub.edu/>

*First published 1965*

*ISSN 1842-4309*

[www.notulaeobotanicae.ro](http://www.notulaeobotanicae.ro)

## EDITORIAL BOARD

### Editor-in-Chief

- [Radu E. SESTRAS](#), University of Agricultural Sciences and Veterinary Medicine (UASVM), 3-5 Manastur St., 400372, Cluj-Napoca, Romania

### Advisory Editors

- [Cornel CĂTOI](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Doru C. PAMFIL](#), Romanian Academy, Cluj-Napoca Branch, Romania

### Associate Editors

- [Sorana D. BOLBOACĂ](#), 'Iuliu Hatieganu' University of Medicine and Pharmacy, Cluj-Napoca, Romania
- [Monica BOSCAIU](#), Universitat Politècnica de València, Spain
- [Claudiu I. BUNEA](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Lorentz JANTSCHI](#), Technical University of Cluj-Napoca, Cluj-Napoca, Romania
- [Ioanna KAKABOUKI](#), Agricultural University of Athens, Iera Odos, 75, 11855, Athens, Greece
- [Kamil KUČA](#), University of Hradec Králové, Czech Republic
- [Felicia LOGHIN](#), 'Iuliu Hatieganu' University of Medicine and Pharmacy, Cluj-Napoca, Romania
- [Leon MUNTEAN](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Vlad MUREȘAN](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Ioan NEGRUTIU](#), Ecole Normale Supérieure, Lyon, France
- [Ioana Delia POP](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Mihai PUȘCĂȘ](#), Babeș-Bolyai University, 400084 Cluj-Napoca, Romania
- [Agnieszka SEKARA](#), Agricultural University of Kraków, Kraków, Poland
- [Adriana F. SESTRAS](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Dan C. VODNAR](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania

## Editorial Board - Scientific Members & Editors

- [Ioan Vasile ABRUDAN](#), Transilvania University, Brasov, Romania
- [Douglas D. ARCHBOLD](#), University of Kentucky, Lexington, United States
- [Valerian BALAN](#), State Agrarian University of Moldova, Chişinău, Moldova
- [Dimitrios J. BILALIS](#), Agricultural University of Athens, Athens, Greece
- [Anca Dana BUZOIANU](#), 'Iuliu Hatieganu' University of Medicine and Pharmacy, Cluj-Napoca, Romania
- [Dănuț CHIRA](#), National Institute for Research and Development in Forestry, Romania
- [Sorin Mihai CÎMPEANU](#), Univ. Agronomic Sciences and Veterinary Medicine, Bucharest, Romania
- [Kamal CHOWDHURY](#), Claflin University, Orangeburg, United States
- [Valeriu V. COTEA](#), University of Agricultural Sciences and Veterinary Medicine, Iaşi, Romania
- [Lucian A. CURTU](#), Transilvania University, Brasov, Romania
- [Sezai ERCISLI](#), Ataturk University, Erzurum, Turkey
- [Marek GAJEWSKI](#), Warsaw University of Life Sciences, Warszawa, Poland
- [Mirza HASANUZZAMAN](#), Sher-e-Bangla Agricultural University, Dhaka, Bangladesh
- [Imre HOLB](#), Univ. Agricultural Sciences of Debrecen, Debrecen, Hungary
- [Maurizio LAMBARDI](#), National Research Council (CNR), IBE, Sesto Fiorentino, Firenze, Italy
- [Andrea LUVISI](#), University of Salento, DiSTeBA, Lecce, Italy
- [Amarendra Narayan MISRA](#), Fakir Mohan University, Vyasa Vihar, Balasore, India
- [Jaime PROHENS](#), Universitat Politècnica de València, Spain
- [Albert REIF](#), University of Freiburg, Freiburg, Germany
- [Adrián RODRÍGUEZ-BURRUEZO](#), Universitat Politècnica de València, Spain
- [Giulia SANTUNIONE](#), University of Modena and Reggio Emilia, Italy
- [Klaus SCHALLER](#), Hochschule Geisenheim University, Geisenheim, Germany
- [Paul SESTRAS](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Velibor SPALEVIC](#), University of Montenegro, Niksic, Montenegro
- [Ioan TĂUT](#), University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania
- [Oscar VICENTE](#), COMAV, Universitat Politècnica de València, Valencia, Spain
- [Vasile VÎNTU](#), University of Agricultural Sciences and Veterinary Medicine, Iaşi, Romania
- [Qiang-Sheng WU](#), Yangtze University, Jingzhou, China

## Technical and Administrative Editors

- [Cătălina DAN](#), UASVM, Cluj-Napoca, Romania
- [Mihail KANTOR](#), USDA, ARS, Beltsville, United States
- [Lucica MIHALTE](#), UASVM, Cluj-Napoca, Romania
- [Diana-Maria MIRCEA](#), UASVM, Cluj-Napoca, Romania
- [Irina M. MORAR](#), UASVM, Cluj-Napoca, Romania
- [Andreea D. ONA](#), UASVM, Cluj-Napoca, Romania
- [Corina F. SERBAN](#), Washington State University, IAREC, Prosser, United States
- [Alina M. TRUȚĂ](#), UASVM, Cluj-Napoca, Romania

## Journal Secretary

- [Roxana L. STOIAN DOD](#), UASVM, Cluj-Napoca, Romania
- [Laura Ioana MACAVEI](#), UASVM, Cluj-Napoca, Romania
- [Silviu L. MIC](#), UASVM, Cluj-Napoca, Romania

## Linguistic Editors

- [Mihaela RUSU](#), UASVM, Cluj-Napoca, Romania
- [Rodica STAN](#), UASVM, Cluj-Napoca, Romania

## Technical Support

- [Carla M. APARASCHIVE](#), UASVM, Cluj-Napoca, Romania
- [Mihaela DINU-ROMAN SZABO](#), UASVM, Cluj-Napoca, Romania
- [Adrian I. GEORGIU](#), UASVM, Cluj-Napoca, Romania
- [Ioana L. GHIURCO](#), UASVM, Cluj-Napoca, Romania
- [Iulia E. MORA](#), UASVM, Cluj-Napoca, Romania
- [Diana Alexandra POP](#), UASVM, Cluj-Napoca, Romania

## Notice

The Editorial Board of **Notulae Botanicae Horti Agrobotanici Cluj-Napoca** is not responsible for statements and opinions published; they represent the views of the authors or persons to whom they are credited. Publication of research information does not constitute a recommendation or endorsement of products involved.

## Material Disclaimer

The authors are fully responsible for their work and they hold sole responsibility for the articles published in the journal. The editors, editorial board and publisher do not assume any responsibility for the article's contents and for the authors' views expressed in their contributions.

## Indexation, relevance, metrics

You can find information about journal score and metrics here: [impact and relevance](#).

## Aims and scope

[Notulae Botanicae Horti Agrobotanici Cluj-Napoca](#) is a peer-reviewed quarterly (beginning in 2019) journal aimed at disseminating significant research and original papers on plant breeding, genetics, diversity and development of new methodologies that can be of interest to a wide audience of plant scientists in all areas of plant biology, agriculture, horticulture, and forestry. The journal encourages authors to frame their research questions and discuss their results in terms of the major questions of plant biology and agriculture, thereby maximizing the impact, spreading and value of their research. The papers must be of potential interest to a significant number of scientists and, if specific to a local situation, must be relevant to a wide body of knowledge in biology and agronomy. Articles should make a significant contribution to the advancement of knowledge or toward a better understanding of existing biological and agricultural concepts. An international Editorial Board advises the journal. There are no publishing fee and no pay for submission. The total content of the journal may be used for educational, non-profit purposes without regard to copyright. The distribution of the material is encouraged with the condition that the authors and the source (**Notulae Botanicae Horti Agrobotanici Cluj-Napoca** or **Not Bot Horti Agrobo**) are mentioned.

## Submission

The journal offers to authors a fully web-enabled online manuscript submission, instructions for authors and review system available at <https://www.notulaebotanicae.ro>. Papers are published in English (British spelling) and the authors are fully responsible for the originality of their papers and for the correctness of their subject-matter, language and formal attributes. A language reviewer revises English, but authors are strongly urged to have the papers reviewed linguistically prior to submission. Manuscripts submitted must be edited, for clarity and conformity purposes according to Authors guidelines, and must not have been previously published or simultaneously submitted elsewhere. The papers can be submitted online by the corresponding author (or the person who takes responsibility for the integrity of the work as a whole, from submission to the published article). The submission process is described on the web site. An Author Statement, available on the website, should be enclosed by corresponding author declaring that the paper has not been published anywhere else, permission to reproduce the material, authorship credit, contributors and creditors for the integrity of the work as a whole, to avoid the conflicts of interest and scientist fraud, and respecting the ethical principles of publishing, research and scientific rights.

## Publication Frequency

Quarterly (four issues per volume/year). Beginning in 2019, the journal appears quarterly, with the next coverage over the four annual numbers (combined months):

Issue 1: January-March

Issue 2: April-June

Issue 3: July-September

Issue 4: October-December

## Publication Ethics and Publication Malpractice Policy

The journal respects the publication ethics norms, based on internationally accepted best practice guidelines for journal editors, notably the Committee on Publication Ethics ([COPE](#)), the World Association of Medical Editors ([WAME](#)), the International Committee of Medical Journal Editors ([ICMJE](#)), Consolidated Standards of Reporting Trials ([Consort](#)).

Prof. dr. h.c. Radu E. SESTRAS

Editor-in-Chief

[Notulae Botanicae Horti Agrobotanici Cluj-Napoca](#) ©

AcademicPres

University of Agricultural Sciences and Veterinary Medicine

3-5 Mănăştur, 400372 Cluj-Napoca, Romania

Phone: +40 264-596 384; Fax +40 364-819 343

[rsestras@notulaebotanicae.ro](mailto:rsestras@notulaebotanicae.ro)

## Table of Contents

## Editorial

[Introduction pages, NBHA-CN 53\(3\), 2025](#)

14782

Radu E. SESTRAS

[PDF](#)

## Review Articles

[Livestock-mediated food waste conversion: Advancing resource efficiency and sustainable agriculture](#)

14683

Munir OZTURK, Iqra SIDDIQUE, Alvina GUL, Ibrahim Ertugrul YALCIN, Volkan ALTAY, Bengu TURKYILMAZ UNAL

[PDF](#)[The genetic applications of plant cell and tissue culture techniques: Essential tools for genetic manipulation and crop improvement](#)

14718

Uthman B. ALGOPISHI, Ahmed M. ABDELGHFFAR, Nora M. AL ABOUD, Fatmah A. SAFHI, Eman FAYAD, Khadiga ALHARBI, Nada I. ALJWAIZEA, Abdallah A. HASSANIN

[PDF](#)[Expanding perennial grass bioenergy crops and influence on allergenic burden: A short review](#)

14681

Željko S. DŽELETOVIĆ, Snežana M. BRAJEVIĆ, Aleksandar S. SIMIĆ, Nikola S. MILANOVIĆ, Violeta T. MANDIĆ

[PDF](#)

## Research Articles

[Transcriptome analysis of wheat \(\*Triticum aestivum\*\) reveals regulatory mechanisms of adaptation to water deficit stress induced by arbuscular mycorrhizal fungi](#)

14529

Elahe DOOKHE, Alireza IRANBAKSH, Rahim AHMADVAND, Mostafa EBADI, Iraj MEHREGAN

[PDF](#)[Phytochemical characterization and antifungal potentials of \*Melia azedarach\* Linn leave aqueous extract to inhibit aflatoxins biosynthesis in food during storages](#)

14558

Javid ALI, Arshad HUSSAIN, Muhammad SIDDIQUE, Muhammad AKRAM, Muhammad IKRAM, Muhammad ZAHOOR, Naila GULFAM, Raiz ULLAH, Amal ALOTAIBI

[PDF](#)[Trade-off strategies of individual clonal reproductive traits in Chinese wildrye \(\*Leymus chinensis\* \(Trin.\) Tzvel\) under NaCl stress](#)

14386

Zhan-Wu GAO, Yan-Hui CUI, Ming CAO, Li-Jie HE, Ying-Qi QIN, Meng-Yuan BAI, Xin-Ning LI, Qian LI, Jin-Yu LIU, Ge GAO, Yong-Guang MU, Chun-Sheng MU

[PDF](#)[Assessing morpho-chemical and genetic diversity in acid limes germplasm using microsatellite markers](#)

14566

Arooge FATIMA, Muhammad USMAN, Bilquees FATIMA, Iqrar Ahmad RANA

[PDF](#)[Transcriptome-based identification of MYB transcription factors associated with flavonoid biosynthesis under LED light in \*Astragalus membranaceus\* \(Fisch.\) Bunge](#)

14625

Ji W. SEO, Hong J. CHOI, Jiu PARK, Won H. CHOI, Eun S. SEONG

[PDF](#)[Impact of media type on callus morphology and standardization of \*Withania somnifera\* cell culture for enhanced secondary metabolite production](#)

14542

Muhammad ADIL, Atif A. K. KHALIL, Zohaib YOUNAS, Khalid M. AL-ROHILY, Abdulmoneem H. AL-KHAMEES, Zia-ur-Rehman MASHWANI

[PDF](#)

<a href="#">Potential role of nitrogen supplementation in alleviating flooding stress</a> Yeşim DAL-CANBAR	14601 <a href="#">PDF</a>
<a href="#">Ameliorative role of salicylic acid on morpho-anatomy and physiology of rapeseed (<i>Brassica napus</i> L.) under lead stress</a> Anbreen SULTAN, Abdul HASEEB, Daji LI, Iqra LATIF, Abdul GHAFOOR	14703 <a href="#">PDF</a>
<a href="#">Enhanced accumulation of total phenolic content and rosmarinic acid in cell suspension cultures of <i>Ehretia asperula</i> using elicitors and precursors</a> Tuan Trong TRAN, Thao Thu Vo NGUYEN, Hang Thu Thi NGUYEN, Thuy Kim Thi DANG, Trang Huyen Thi NGUYEN, Giap Dang DO, Huong Thi TRINH	14521 <a href="#">PDF</a>
<a href="#">Influence of cultivation conditions on growth and water use efficiency of zucchini seedlings</a> Limin PANG, Kaisheng YANG, Fenlu ZHUO, Gang XU, Lili CUI, Yuanzhe LI	14620 <a href="#">PDF</a>
<a href="#">An insight into the biochemical content of <i>Colchicum autumnale</i> L. throughout its ontogenetic cycle</a> Ioana-Claudia MOROȘAN, Marius MIHĂȘAN, Maria-Magdalena ZAMFIRACHE	14572 <a href="#">PDF</a>
<a href="#">Mitigation of drought stress effects on sweet potato plants by application of <math>\gamma</math>-Aminobutyric acid</a> Mahmoud S. AMIN, Mohamed Z. EL-SHINAWY, Hany G. ABD EL-GAWAD, Maryam M. ALOMRAN, Khaled ABDELAAL, Rasha F. EL-FLAAH, Mahmoud A. ALI	14549 <a href="#">PDF</a>
<a href="#">The influence of different types of mulch on the yield and content of bioactive compounds of immortelle</a> Adna CURIĆ, Katarina HAFNER-VUK, Teofil GAVRĆ	14721 <a href="#">PDF</a>
<a href="#">Johnsongrass (<i>Sorghum halepense</i> (L.) Moench) resistance to cycloxydim, fluazifop and propaquizafop and its impact on growth rate</a> Aristeidis P. PAPAPANAGIOTOU, Ioannis VASILAKOGLU, Maria V. ALVANOU, Ioannis A. GIANTSIS, Ilias G. ELEFTHEROHORINOS	14605 <a href="#">PDF</a>
<a href="#">Synergistic effect of cultivation methods and seaweed-based biostimulations on iceberg lettuce in sustainable agriculture</a> Jelena PANTOVIĆ, Đorđe MORAVČEVIĆ, Aleksandar KOSTIĆ, Vladimir ZORNIĆ, Sofija KILIBARDA, Sandra VUKOVIĆ, Nenad PAVLOVIĆ	14340 <a href="#">PDF</a>
<a href="#">Synergistic effects of humic acid and boron on quantitative and qualitative traits of tomato</a> Md. Mofizur RAHMAN, Khairul KABIR, Md. Saidur RAHMAN, Md. Rezwana SARKER, Mohammad S. RAYHAN, Chaity D. PUJA, Farzana ISLAM, Khaleda KHATUN, Mohammad Shah JAHAN	14504 <a href="#">PDF</a>
<a href="#">Production, morphology, physiology and analysis of farming in a simple plastic house with the addition of light at night in some tomato varieties</a> Lilia FAUZIAH, Rudi Cahyo WICAKSONO, Siti SOFIAH, Mizu ISTIANTO, Evy LATIFAH, Djajadi DJAJADI, Herman SUBAGIO, Mohammad SAERI, Zainal ARIFIN, Yogi SUGITO, Nurul AINI, Setyono Yudho TYASMORO, Dwi SETYORINI	14428 <a href="#">PDF</a>
<a href="#">Exogenous Spermidine (Spd) alleviates NaCl-induced injury effects by improving photosynthesis and oxidative stress tolerance in <i>Brassica napus</i> seedlings</a> Tian Yuan XUE, He Ping WAN, Xiao Ming WU, Li LIU, Jing Dong CHEN, Yi YU, Xi Gang DAI, Yuan Huo DONG, Chang Li ZENG	14420 <a href="#">PDF</a>
<a href="#">Effect of nutrient solution electrical conductivity on cucumber growth and yield in controlled pot soil cultivation</a> Minkyung KIM, M.G. RABBANI, Mewuleddeg ZEBRO, Ki-Young CHOI	14548 <a href="#">PDF</a>

<a href="#">Effects of drip application of different concentrations of CO<sub>2</sub> solution on canopy gas exchange, growth, yield, and quality of cotton</a>	14538 <a href="#">PDF</a>
Hong REN, Mi YANG, Yiru MA, Zilong ZHANG, Lucheng LIANG, Duoer MA, Yan WU, Ze ZHANG, Jiangli WANG	
<a href="#">Interaction between climatic conditions and sowing density on yield performance of maize genotypes</a>	14594 <a href="#">PDF</a>
Jelena STOJILJKOVIĆ, Vera RAJIČIĆ, Milan BIBERDŽIĆ, Dragan TERZIĆ, Kristina LUKOVIĆ, Ivan TUPAJIĆ, Biljana Šević, Nenad ĐURIĆ	
<a href="#">NaCl and NaHCO<sub>3</sub> mediate tradeoffs in growth, leaf traits, and clonal reproduction of reed (<i>Phragmites communis</i>) under saline-alkali stress</a>	14282 <a href="#">PDF</a>
Zhan-Wu GAO, Jing LIU, Xiao-Ling Lu, Xin LI, Ying-Qi QIN, Ge GAO, Li-Jie HE, Meng-Zhu CAI, Chen CHEN, Ji-Tao ZHANG, Chun-Sheng MU, Mohamed MOHANY	
<a href="#">Functional properties and bioactive compounds of <i>Opuntia mucilage</i> under different irrigation regimes and its use as an additive in an edible coating</a>	14608 <a href="#">PDF</a>
Edén A. LUNA-ZAPIÉN, Jorge A. ZEGBE, Jolanta E. MARSZALEK, Víctor M. RODRÍGUEZ-GONZÁLEZ, Erick SIERRA-CAMPOS, Juan A. ASCACIO-VALDÉS, Jorge A. MEZA-VELÁZQUEZ	
<a href="#">Genetic diversity and essential oil composition of <i>Myrtus communis</i> L. from Lorestan Province, Iran: Implications for conservation and utilization</a>	14559 <a href="#">PDF</a>
Somaye MOHEBI FARD, Maryam PEYVANDI, Hossein ABBASPOUR, Ahmad MAJD, Sayeh JAFARI MARANDI	
<a href="#">Impact of nitrogen fertilization on raspberry (<i>Rubus idaeus</i> L.) fruit quality and soil fertility</a>	14598 <a href="#">PDF</a>
Ljiljana BOŠKOVIĆ-RAKOČEVIĆ, Ivan GLIŠIĆ, Ivana RADOVANOVIĆ, Gorica PAUNOVIĆ, Jelena MLADENOVIĆ, Mira MILINKOVIĆ, Radmila ILIĆ	
<a href="#">Remote sensing and field analysis of <i>Erwinia amylovora</i> on quince</a>	14657 <a href="#">PDF</a>
Călin BACIU, Renata-Maria ȘUMĂLAN, Carmen BEINȘAN, Sorin CIULCA, Radu ȘUMĂLAN	
<a href="#">Determination of yield by plant leaf temperature and thermal imaging in banana (<i>Musa</i> spp. AAA) under different cover materials</a>	14561 <a href="#">PDF</a>
Samiullah KAMRAN, Nefise Y. TEZCAN, Hamide GÜBBÜK	
<a href="#">Changes in the plant composition of an <i>Amelichloa clandestina</i> (Hack.) grassland after non-selective grazing</a>	14567 <a href="#">PDF</a>
Sait JUANES-MARQUEZ, Perpetuo ALVARES-VÁZQUEZ, Miguel MELLADO-BOSQUE, Juan A. ENCINA-DOMÍNGUEZ, Aurelio PEDROZA-SANDOVAL, Martin CADENA-ZAPATA	
<a href="#">Improving strawberry fruit quality through breeding: cultivar performance and biochemical diversity</a>	14704 <a href="#">PDF</a>
Monica STURZEANU, Oana HERA, Mădălina MILITARU, Loredana E. VÎJAN	
<a href="#">Optimizing harvest timing: Impacts on physical characteristics and quality parameters of grapes</a>	14607 <a href="#">PDF</a>
Mersija DELIĆ, Anastasija ANĐUŠIĆ, Fahrudin TOPČIĆ, Milenko BLESIĆ, Fikreta BEHMEN, Mirela SMAJIĆ MURTIĆ, Senad MURTIĆ	
<a href="#">Effects of rootstocks on fruit yield and quality, antioxidant capacity, and total phenol content of almond cultivars 'Ferragnes' and 'Ferraduel'</a>	14458 <a href="#">PDF</a>
Dorukhan ÇANTAL, Deniz EROGUL, María del Carmen MARTÍNEZ BALLESTA	

[Effect of excess zinc in soil on \*Moringa oleifera\* Lam. seedlings emergence](#)

14404

Maiara L. GRIGOLI-OLIVIO, Tassia C. FERREIRA, Beatriz S. dos SANTOS, Guilherme I. da SILVA, Gabriela da S. RAQUETI, Nayane C.P. BOMFIM, Maycon A. de ARAUJO, Fábio A. de A. MORAIS, Aline R. COSCIONE, Liliane S. de CAMARGOS

[PDF](#)

---

[Biomass, carbon sequestration, and physiological behaviours of Paulownia 'Shan Tong' plantation under a semi-arid bioclimate](#)

14415

Sondes FKIRI, Imen OUERGHUI, M. Taher ELAIEB, Samir GHANNEM, Adel DABOUSSI, Zouhair NASR

[PDF](#)

---

[Variation in survival and stem quality of Douglas-fir provenances: Insights from 47-year-old common garden experiments in Romania](#)

14695

Emanuel STOICA, Alin M. ALEXANDRU, Georgeta MIHAI, Alexandru L. CURTU

[PDF](#)

Editorial office

[Notulae Botanicae Horti Agrobotanici Cluj-Napoca](#) ©

AcademicPres

University of Agricultural Sciences and Veterinary Medicine

3-5 Mănăştur, 400372 Cluj-Napoca, Romania

Phone: +40 264-596 384; Fax +40 364-819 343

[rsestras@notulaeobotanicae.ro](mailto:rsestras@notulaeobotanicae.ro)



Electronic ISSN 1842-4309

University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca,  
3-5 Manastur St., 400372 Cluj-Napoca, Romania  
<http://www.notulaebotanicae.ro>