



ISSN-L 1843-5262
Print ISSN 1843-5262
Electronic ISSN 1843-536X
CD-ROM ISSN 2457-1423

**BULLETIN OF
UNIVERSITY OF AGRICULTURAL SCIENCES
AND VETERINARY MEDICINE
CLUJ-NAPOCA**

ANIMAL SCIENCE AND BIOTECHNOLOGIES

VOLUME 78, ISSUE 1/2021

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

Indexed in:

- AGRIS
- DOAJ (Directory of Open Access Journals)
- Google Scholar
- INDEX COPERNICUS
- THOMSON REUTERS Master Journal list, through Zoological Records

Biannual journal

<https://journals.usamvcluj.ro/index.php/zootehnie/index>



Aims and scope

Bulletin of the University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca Animal Science and Biotechnologies is a biannual Open Access peer-reviewed journal. It is dedicated at disseminating significant research and original papers (Research Articles), critical reviews (Review Articles) and Short Communications after a rigorous review process in the broad areas of Animal Science and Biotechnologies that can serve the interest of a wide audience of scientists and professionals. The submitted papers should bring a significant contribution to the advancement of knowledge or toward a better understanding of existing animal science, genetics and genetic engineering, technologies in animal breeding, apiculture and sericulture, aquaculture, animal welfare and food safety, plant and industrial biotechnologies, animal and veterinary biotechnologies, advanced techniques in biotechnologies, molecular biology, and structural biochemistry, genomics and proteomics concepts. The distribution of the material is encouraged with the condition that the authors and the source (abbreviated title **Bulletin UASVM Animal Science and Biotechnologies**) will be mentioned.

Instructions for authors are available at:

<https://journals.usamvcluj.ro/index.php/zootehnie/about/submissions#authorGuidelines>

The **full text PDF files** are available at: <https://journals.usamvcluj.ro/index.php/zootehnie/issue/archive>

Online submission of manuscripts at: <https://mc04.manuscriptcentral.com/biotechnology>

The manuscript submission should be accompanied by the Author statement form, available on the website.

Published and printed by AcademicPres (EAP)
3-5 Mănăştur Street, Cluj-Napoca, 400372 Romania
Phone +40264-596384
E-mail: eap@usamvcluj.ro

Copyright©2021
AcademicPres®
All rights reserved

Cite as: **Bulletin UASVM Animal Science and Biotechnologies, 78(1)/2021**

EAP is not responsible for statements and opinions published in the Bulletin; they represent the authors' points of view. The publication of research information does not represent a recommendation or endorsement of the products involved.



MANAGING EDITORS

Cornel CĂTOI, Ph.D.

Daniel S. DEZMIREAN, Ph.D.

EDITOR IN CHIEF

Dan C. VODNAR, Ph.D.

ASSOCIATE EDITOR

Cristian O. COROIAN, Ph.D.

EDITORIAL BOARD

Michael BRUFORD, Ph.D., Cardiff University, United Kingdom

Thomas PROHASKA, Ph.D., University of Natural Resources and Life Sciences, Vienna, Austria

Pablo OROZCO-ter WENGEL, Ph.D., Cardiff University, United Kingdom

Philippe THONART, Ph.D., University of Liège, Belgium

Andreas ZITEK, Ph.D., University of Natural Resources and Life Sciences, Vienna, Austria

Marcel AMILLS, Ph.D., Universitat Autònoma de Barcelona, Spain

Pilar DE LA RUA, Ph.D., University of Murcia, Spain

Emilio CAPRIO, Ph.D., University of Naples, Italy

Martin GIERUS, Ph.D., Universität für Bodenkultur, Wien, Austria

Nicolae Corcionivoschi, Ph.D., Agri-Food and Biosciences Institute, Belfast, United Kingdom

Gábor MILISITS, Ph.D., University of Kaposvár, Hungary

Vladimir VRABEC, Ph.D., Czech University of Life Sciences, Prague, Czech Republic

Zoltán DOMOKOS, Ph.D., National Association of Hungarian Charolais Cattle Breeders, Miskolc, Hungary

Tanja KUNEJ, Ph.D., University of Ljubljana, Slovenia

Technical assistance

Orsolya BORSAL, Ph.D.