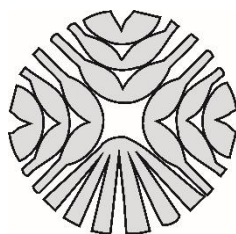


Agricultural University
Plovdiv

AGRICULTURAL SCIENCES



Volume 17 Issue 46
Plovdiv 2025

Academic Publishing House of the Agricultural University

***Agricultural Sciences* is a journal of the Agricultural University – Plovdiv.
Original research papers and reviews in all areas of Crop Science, Plant Protection, Ecology,
Animal Breeding and Husbandry, Economy and Tourism are published in the journal
in English.**

Editor-in-Chief – Prof. Andon Vassilev, PhD
Deputy-Editor-in-Chief – Assoc. Prof. Valeria Ivanova, PhD

Editorial board

Prof. Vladislav Popov, PhD
Prof. Vili Harizanova, PhD
Prof. Ivan Manolov, PhD
Prof. Ivan Penov, PhD
Prof. Vasil Nikolov, PhD
Prof. Valentin Lichev, PhD
Prof. Nikolay Panayotov, PhD
Associate Prof. Stoyan Ishpekov, PhD
Petya Georgieva, PhD

Associate Editors

Prof. Jaco Vangronsveld, PhD
Prof. Manuel Peixoto Teixeira Leitão, PhD
Prof. Dorota Jadczyk, DSc
Prof. Agnieszka Wrzochalska, DSc
Prof. Nurlan Serekpaev, DSc
Prof. Nikolay Vasilev, PhD

Indexing:

EBSCO Academic Search Ultimate
CAB International - CAB Abstracts
Web of Science - CABI
Google Scholar
AGRIS

Editorial Secretary- Assist. Prof. Katya Dimitrova, PhD
Executive Editor – Assist. Prof. Nikola Tsaikin, PhD

Format – 16/60x84 Quires – 5.6
Academic Publishing House of the Agricultural University

© ***Agricultural Sciences*, 2025**
ISSN 2603-4638 (print)
ISSN 3033-0149 (online)

Agricultural University – Plovdiv, 12, Mendelev Blvd.
www.au-plovdiv.bg E-mail: agriculturalsciences@au-plovdiv.bg