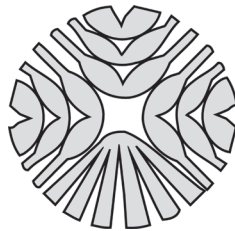


*Agricultural University*  
*Plovdiv*

# **AGRICULTURAL SCIENCES**



**Volume 11      Issue 25**  
**Plovdiv 2019**

**Academic Publishing House of the Agricultural University**

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

***Editorial Board***

Editor-in-Chief – Prof. Diyana Svetleva, DSc  
DSc Deputy-Editor-in-Chief – Assoc. Prof. Valeria Ivanova, PhD  
Executive Editor – Tania Tsvetkovska

***Members***

Correspondent member of BAS Prof. Iordanka Koumanova, DSc  
Prof. Krassimir Ivanov, DSc  
Prof. Alexi Alexiev, PhD  
Prof. Valentin Lichev, PhD  
Prof. Plamen Petrov, PhD  
Assoc. Prof. Ivan Braykov, PhD

***International Editorial Board***

Prof. Jaco Vangronsveld, DSc, Doctor Honoris Causa of the AU – Plovdiv  
Prof. Manuel Peixoto Teixeira Leitão, DSc, Doctor Honoris Causa of the AU – Plovdiv  
Prof. Agnieszka Wrzochalska, DSc  
Prof. Dorota Jadczyk, DSc  
Prof. Nurlan Serekpaev, DSc

**The *Agricultural Sciences* journal is fully referred to in CAB Abstracts, EBSCO Publishing, AGRIS and partially – in other 30 databases of CAB International**

**AGRICULTURAL SCIENCES**

Editor-in-Chief – Prof. Diyana Svetleva, DSc  
Executive Editor – Tania Tsvetkovska  
Format – 16/60x84    Quires – 3,3  
Academic Publishing House of the Agricultural University

**© *Agricultural Sciences*, 2019  
ISSN 1313-6577**

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