

<i>Maced. J. Anim. Sci.</i>	Vol. 7 год.	No. 1–2 бр.	pp. 1–140 стр.	Skopje 2017 Скопје
-----------------------------	--------------------------	--------------------------	-----------------------------	---------------------------------

MACEDONIAN JOURNAL OF ANIMAL SCIENCE

International Scientific Journal

The *Maced. J. Anim. Sci.* is an international peer-reviewed, open access journal published twice a year.

Maced. J. Anim. Sci. print ISSN 1857-6907 (on line ISSN 1857-7709) offers free access to all articles at
<http://www.mjas.ukim.edu.mk>

Indexed in: CAB Abstracts, Global Health, EBSCO

Published by: Издава:

Institute of Animal Science

"Ss. Cyril and Methodius" University in Skopje, Macedonia

Институт за сточарство

Универзитет „Св. Кирил и Методиј“ во Скопје, Македонија

Editorial Team

Editor in Chief

Natasha Gjorgovska,

Institute of Animal Science, Skopje, Republic of Macedonia

Издавачки тим

Главен уредник

Наташа Гјорговска,

Институт за сточарство, Скопје, Република Македонија

EDITORIAL BOARD

Editors

Rodne Nastova, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Georgi Petkov**, Trakia University, Faculty of Agriculture, Stara Zagora, Bulgaria; **Erbay Bardakcioglu**, Adnan Menderes University, Faculty of Veterinary Medicine, Aydin, Turkey; **Vasil Kostov**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **David Christian de la fe Rodrigue**, University of Murcia, Spain; **Mirjana Menkovska**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Oktay Gursoy**, University of Cukurova, Adana, Turkey; **Zvonko Antunović**, University of Osijek, Faculty of Agriculture, Osijek, Croatia; **Bone Palashevski**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Svetlana Grigorova**, Institut of Animal Science, Kostinbrod, Bulgaria; **Zlata Kralik**, University of Osijek, Faculty of Agriculture, Osijek, Croatia; **Elżbieta Martyniuk**, Warsaw University of Life Sciences, Faculty of Animal Sciences, Warsaw, Poland; **Nedeljka Nikolova**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Nikola Puvača**, University of Novi Sad, Faculty of Agriculture, Novi Sad, Serbia; **Ángel Gómez Martín**, Departamento de Producción y Sanidad Animal, Salud Pública, Universidad CEU-UCH de Valencia, Spain; **Nikola Pacinovski**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje; **Theofilos Massouras**, Agricultural University of Athens, Athens, Greece; **Natasha Mateva**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Ekin Sucu**, Uludag University, Bursa, Turkey; **Magdalena Oblakova**, Agricultural Institute, Stara Zagora, Bulgaria; **Vesna Levkov**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Miroslav V. Plavšić**, University of Novi Sad, Faculty of Agriculture, Novi Sad, Serbia; **Tosho Kostadinov**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Zhivko Krastanov**, Agricultural Institute, Stara Zagora, Bulgaria; **Cyril Hrnčar**, Slovak University of Agriculture, Faculty of Agrobiology and Food Resources, Nitra, Slovak Republic; **Elena Eftimova**, University Ss. Cyril and Methodius, Institute of Animal Science, Skopje, Macedonia; **Saša Marić**, University of Belgrade, Belgrade, Serbia; **Siniša Berjan**, University of East Sarajevo, Faculty of Agriculture, East Sarajevo, Republic of Srpska, **Snežana Jovanović**, University of Belgrade, Belgrade, Serbia

Secretaries

Suzana Janevska, Skopje, Macedonia

Ana Palashevská, Skopje, Macedonia

Irina Ushlinovska, Skopje, Macedonia

Секреtари

Сузана Јаневска, Скопје, Македонија

Ана Палашевска, Скопје, Македонија

Ирина Ушлиновска, Скопје, Македонија

Cover by: **Blagoja Bogatinoski**

Нацрт на корицата: **Благоја Богатиноски**

Graphics and art design: **Blagoja Bogatinoski**

Графичко и ликовно уредување: **Благоја Богатиноски**

Macedonian language adviser: **Georgi Georgievski**

Лектор за македонски јазик: **Георги Георгиевски**

Proof-reader: **Alena Georgievská**

Коректор: **Алена Георгиевска**

UDC: National and University Library "St. Kliment Ohridski" – Skopje (Valentina Dojčinovska-Ilioska)

Address

MACEDONIAN JOURNAL OF ANIMAL SCIENCE

(Editorial Board)

Institute of Animal Science, "Ss. Cyril and Methodius" University in Skopje, MK P.O. Box 207, MK-1001 Skopje, Republic of Macedonia

E-mail: mjas@ukim.edu.mk

200 copies

Price: 20 €.

Printed in December 2017

Тираж: 200

Цена: 1200 ден.

Бројот е отпечатен во декември 2017