

ISSN 2412-0324 (English ed. Online)
ISSN 0131-6397 (Russian ed. Print)
ISSN 2313-4836 (Russian ed. Online)

AGRICULTURAL BIOLOGY

Since January, 1966

ANIMAL
BIOLOGY

Vol. 57, Issue 4
July-August

2022 Moscow

EDITORIAL BOARD

V.I. FISININ (Sergiev Posad, Russia) — Chairman (animal biology)

BAGIROV V.A. (Moscow, Russia)
BORISOVA E.M. (Moscow, Russia)
BREM G. (Vienna, Austria)
EGOROV I.A. (Sergiev Posad, Russia)
FEDOROV Yu.N. (Moscow, Russia)
FEDOROVA L.M. (editor-in-chief)
(Moscow, Russia)
KOSOLAPOV V.M. (Lobnya, Russia)

LAPTEV G.Yu. (St. Petersburg, Russia)
LUSHENG HUANG (China)
PANIN A.N. (Moscow, Russia)
SMIRNOV A.M. (Moscow, Russia)
SURAI P.F. (Ayr, Scotland, UK)
SHEVELEV N.S. (Moscow, Russia)
ZINOVIEVA N.A. (Dubrovitsy, Russia)

A peer-reviewed academic journal for delivering current original research results and reviews on classic and modern biology of agricultural plants, animals and microorganisms
Covered in Scopus, Web of Science (BIOSIS Previews, Biological Abstracts, CAB Abstracts, Russian Science Citation Index), AgriS

Science editors: E.V. Karaseva, L.M. Fedorova

Publisher: Agricultural Biology Editorial Office NPO

Address: build. 16/1, office 36, pr. Polesskii, Moscow, 125367 Russia

Tel: + 7 (916) 027-09-12

E-mail: felami@mail.ru, elein-k@yandex.ru **Internet:** <http://www.agrobiology.ru>



For citation: Agricultural Biology,
Сельскохозяйственная биология, Sel'skokhozyaistvennaya biologiya

ISSN 0131-6397 (Russian ed. Print)
ISSN 2313-4836 (Russian ed. Online)
ISSN 2412-0324 (English ed. Online)

© Agricultural Biology Editorial Office (Редакция журнала
«Сельскохозяйственная биология»), 2022

CONTENTS

REVIEWS, CHALLENGES

- Chernyshev R.S., Sprygin A.V., Igolkin A.S. et al.* Current approaches to the vaccine development for African swine fever (review) 609
- Bogolyubova N.V., Nekrasov R.V., Zelenchenkova A.A.* Antioxidant status and quality of poultry and animal meat under stress and its correction with the use of various adaptogens (review) 628
- Sizova E.A., Ryazantseva K.V.* Fats and emulsifiers in feeding broiler chickens (review) 664
- Voronina O.A., Bogolyubova N.V., Zaitsev S.Yu.* Mineral composition of cow milk — a mini review 681

MORPHOMETRIC VARIABLES FOR BREED DIFFERENTIATION

- Dymkov A.B., Fisinin V.I.* Differentiation of quail (*Coturnix japonica*) breeds based on the morphological parameters of eggs 694

VETERINARY MEDICINE AND MEDICINALS

- Shabunin S.V., Vostroilova G.A., Khokhlova N.A. et al.* Prospects for the application of extracellular proteinases of micromycete *Aspergillus ochraceus* in the treatment of mastitis in cows 706
- Balakirev N.A., Deltsov A.A., Pozyabin S.V. et al.* Iron deficiency anemia in laboratory rats to be used as an experimental model for farmed fur-bearing animals 718

EXPERIMENTAL MYCOTOXICOSES

- Vertiprakhov V.G., Grozina A.A., Yildirim E.A. et al.* Efficacy of a complex preparation to correct digestion in broiler chickens (*Gallus gallus* L.) in experimental mycotoxicosis 730
- Yildirim E.A., Grozina A.A., Vertiprakhov V.G. et al.* Composition and metabolic potential of the intestinal microbiome of *Gallus gallus* L. broilers under experimental T-2 toxicosis as influenced by feed additives 743

MICROBIOLOGY

- Laptev G.Y., Yildirim E.A., Duniyashev T.P. et al.* Bioinformatic analysis of the *Bacillus velezensis* KR-2 genome to reveal biotechnologically important properties 762
- Zhdanova I.N., Mokrushin V.V., Kuznetsova M.V.* Cattle colibacillosis in Perm krai: prevalence, sources of the causative agent and its biological characterization 776

AQUACULTURE

- Mukhramova A.A., Assylbekova S.Zh., Sidorova V.I. et al.* Kazakhstan starter compound feed for African catfish (*Clarias gariepinus*): formulation, quality characterization, and efficiency in aquaculture 791
- Shumeyko D.V., Arystangalieva V.A., Evrumova A.A.* Rearing of *Cherax quadricarinatus* (Von Martens, 1868) juveniles using feed for sturgeons 803