



# Open Journal of Animal Sciences





### **Journal Editorial Board**

ISSN 2161-7597 (Print) ISSN 2161-7627 (Online)

https://www.scirp.org/journal/ojas

#### Editor-in-Chief

Prof. Young W. Park Fort Valley State University, USA

#### **Associate Editors**

Prof. Elsayed Ibrahim ElagamyAl-Qassim University, Saudi ArabiaProf. Bulent ElitokAfyon Kocatepe University, Turkey

Dr. Byeng Ryel Min Tuskegee University, USA

#### **Editorial Board**

**Dr. Ebru Çetin**University of Erciyes, Turkey

Prof. Mahmoud Mohamed Ahmed Abdel-Aziz King Faisal University, Saudi Arabia

Prof. Adel Abdallah Abdel-Ghani Minia University, Egypt

Prof. Ahmed A. Al-Haidary King Saud University, Saudi Arabia

Prof. Berna Arda Ankara University School of Medicine, Turkey

Prof. Osama Ibrahim Azawi University of Mosul, Iraq

Prof. Klaus-Peter Brüssow Leibniz Institute for Far Animal Biology (FBN) Dummerstorf, Germany

Prof. Ivan Cunha Bustamante Filho
Universidade Federal do Rio Grande do Sul, Brazil
Prof. Suresh Dinkar Kharche
Central Institute for Research on Goats, India

Prof. Oguz KulKirikkale University, TurkeyProf. Zissis MamurisUniversity of Thessaly, GreeceDr. Rahul Mahavir NandreKansas State University, USA

**Prof. Ahmad Oryan** Shiraz University, Iran

Prof. Paolo Polidori
University of Camerino, Italy
Prof. H. P. Puttaraju
Bangalore University, India
Dr. Mrigendra Rajput
Arkansas Tech University, USA
Prof. Ali Saadoun
University of the Republic, Uruguay
Dr. Newton Soares da Silva
Universidade do Vale do Paraiba, Brazil
Prof. Augusto Vitale
Italian National Institute of Health, Italy

**Prof. Qiao Wang** Massey University, New Zealand

Prof. Wolfgang Johann Weninge Centre for Anatomy and Cell Biology, Austria

Prof. Hongli YanGenomic Medicine Institute, ChinaProf. Arda YildirimGaziosmanpasa University, TurkeyProf. Moustafa M. ZeitounQassim University, Saudi ArabiaProf. Huitong ZhouLincoln University, New Zealand



ISSN Online: 2161-7627 ISSN Print: 2161-7597

## **Table of Contents**

| Volume 10 Number  | · 2  | April 2020 |
|---|--|------------|
| Finishing Cattle in All-Natura                                      | l and Conventional Production Systems  |            |
| Z. K. Smith, P. T. Anderson, B. J.                                  | . Johnson  | 237        |
| Harvesting of Mouse Embryos<br>C57BL/6J, B6*129 and FVB/N           | s at 0.5 Dpc as a Tool to Reduce Animal Use: Data fro<br>J Strains                             | m          |
| S. Lamas, F. Franquinho, M. Mo                                      | rgado, F. Gartner, I. Amorim   | 254        |
| Reducing Sharp Fluctuations i<br>Index of Broilers Using Dietar     | in Body Temperature and Optimizing Production<br>ry Electrolytes                               |            |
| I. O. Popoola, O. R. Popoola, O.                                    | O. Olajide, A. A. Adeyemi, Q. T. Alegbejo  | 266        |
| • -   | f Pituitary Specific Transcription Factor 1 Gene and tht of Fulani and Yoruba Ecotype Chickens |            |
| ·   | Fatai, M. K. Ewuola, R. O. Ahmed, F. O. Oyelami, F. T. Akiny                                   |            |
| Effect of Social Rank on Well-<br>Stall-Pen Housing Environme       | Being and Space Utilization of Dry Sows Kept in a Fr<br>nt                                     | ee Access  |
| A. E. DeDecker, J. L. Salak-Johns                                   | son  | 287        |
| Reproductive and Growth Per<br>Yam Bean ( <i>Sphenostylis steno</i> | formance of Rabbit Fed Different Inclusion Levels of ocarpa)                                   | African    |
| C. H. Onuoha, B. J. Harry, J. O. l                                  | Fayenuwo, E. S. Durotoye   | 301        |
| Husbandry, Productivity and I<br>Lowlands of Ethiopia               | Producers Trait Preference of Goats in North Western   | n          |
| T. Debela, M. Urge, G. Assefa, Z                                    | %. Mekuriaw  | 313        |

# Open Journal of Animal Sciences (OJAS) Journal Information

#### **SUBSCRIPTIONS**

The *Open Journal of Animal Sciences* (Online at Scientific Research Publishing, <a href="https://www.scirp.org/">https://www.scirp.org/</a>) is published quarterly by Scientific Research Publishing, Inc., USA.

#### Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: <a href="mailto:sub@scirp.org">sub@scirp.org</a>

#### **SERVICES**

#### Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

#### **COPYRIGHT**

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2020 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

http://creativecommons.org/licenses/by/4.0/

#### Copyright for individual papers of the journal:

Copyright © 2020 by author(s) and Scientific Research Publishing Inc.

#### Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ojas@scirp.org



# Open Journal of Animal Sciences

ISSN 2161-7597 (Print) ISSN 2161-7627 (Online) https://www.scirp.org/journal/ojas

Editor-in-Chief

Prof. Young W. Park

Fort Valley State University, USA

#### Editorial Board

Dr. Ebru Cetin

Prof. Mahmoud Mohamed Ahmed Abdel-Aziz

Prof. Adel Abdallah Abdel-Ghani

Prof. Ahmed A. Al-Haidary

Prof. Berna Arda

Prof. Osama Ibrahim Azawi

Prof. Klaus-Peter Brüssow

Prof. Ivan Cunha Bustamante Filho

Prof. Suresh Dinkar Kharche

Prof. Oguz Kul

Prof. Zissis Mamuris

Dr. Rahul Mahavir Nandre

Prof. Ahmad Orvan

Prof. Paolo Polidori

Prof. H. P. Puttaraju

Dr. Mrigendra Rajput

Prof.Ali Saadoun Dr. Newton Soares da Silva Prof. Augusto Vitale

Prof. Qiao Wang

Prof. Wolfgang Johann Weninge

Prof. Hongli Yan

Prof. Arda Yildirim

Prof. Moustafa M. Zeitoun

Prof. Huitong Zhou

Open Journal of Animal Sciences (OJAS) is an international journal dedicated to the latest advancement of animal sciences. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of animal sciences. All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Animal Behavior
- Animal Cognition
- Animal Conservation
- Animal Ecology
- Animal Genetics
- Animal Physiology and Nutrition
- Animal Products and Processing
- Animal Reproduction
- Breeding and Genetics

- Embryo Manipulation
- Environment and Housing
- Ethology and Welfare
- Feeds and Feeding
- Food Evaluation
- Livestock Economics
- Nutrition and Digestion
- Physiology and Endocrinology
- Tropical Animal Health and Production

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.