agriculture

an Open Access Journal by MDPI

IMPACT FACTOR 3.6

CITESCORE 3.6

Impacts of Oxidative Stress on Cattle Physiology

Guest Editors:

Prof. Dr. Camelia Tulcan
Faculty of Engineering and Applied Technologies, University of Life Sciences King Mihai I from Timisoara, Timisoara, Romania

Prof. Dr. Adela Pintea
Department Biochemistry, Faculty of Veterinary Medicine, University of Agricultural Sciences and Veterinary Medicine Cluj Napoca, 400372 Cluj Napoca, Romania

Prof. Dr. Sanda Andrei
Department Biochemistry, Faculty of Veterinary Medicine, University of Agricultural Sciences and Veterinary Medicine Cluj Napoca, 400372 Cluj Napoca, Romania

Deadline for manuscript submissions:
20 June 2024

Message from the Guest Editors

The field of oxidative stress in ruminant medicine is still in its early developmental stages. Although oxidative stress has been linked to various conditions, much remains to be uncovered about its role in ruminant health and production. Determining whether oxidative stress is a primary cause of pathologic changes or a consequence of disease processes is still a matter of investigation. Dairy cattle undergo significant physiological changes during their one-year life cycle after reaching adulthood. The considerable oxygen requirements during periods of increased metabolic demand lead to an augmented production of reactive oxygen species (ROS). An imbalance between increased ROS production and the availability of antioxidant defenses may expose cows to heightened oxidative stress.

The goal of this Special Issue is to provide new advances connecting alterations in the pattern of antioxidants and scavenger compounds, mitochondrial dysfunction, imbalance of energy metabolism, and oxidative stress with onset and/or progression of cattle production systems, also taking into consideration the impact of environmental conditions on cattle welfare in the context of a changing climate.

agriculture

IMPACT FACTOR 3.6

CITESCORE 3.6

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Les Copeland
Sydney Institute of Agriculture, School of Life and Environmental Sciences, The University of Sydney, Sydney, NSW 2006, Australia

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, crossdisciplinary and scholarly open access journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. *Agriculture* is published in an open access format – research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the public have unlimited and free access to the content as soon as it is published.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), PubAg, AGRIS, RePEc, and other databases.
Journal Rank: JCR - Q1 (*Agronomy*) / CiteScore - Q2 (*Plant Science*)

Contact Us

Agriculture Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/agriculture
agriculture@mdpi.com
𝕏@AgricultureMdpi