

Tropical Animal Science Journal

Genome-Wide Association Study for Body Weight and Carcass Weight in Sumba Ongole Bulls (*Bos indicus*)
Hartati & W. P. B. Putra

Comparison of Different Lecithin Diluents for Cryopreservation of Toraya Buffalo Semen
R. M. J. Riwu, R. I. Arifiantini, & N. W. K. Karja

Estimates of Heritabilities of Milk Fat and Milk Protein and Their Correlations with Milk Yield in Sahiwal Cattle of Punjab Pakistan
J. A. Baig, G. Bilal, M. Moaen-ud-din, M. Ulhaq, H. M. Waheed, M. S. Khan, A. Qayyum, F. Ahad, K. Farooq, M. S. Anwar, T. Israr, M. Akhtar, A. Manan, M. I. Qamar, M. I. Gorski, A. Rehman, M. Irfan, F. Ahmed, & B. Haider

Phylogenetic Grouping and Antibiogram of ESBL-Producing *Escherichia coli* Isolated from Bovine Mastitis
Y. H. Tarazi, M. H. Gharaibeh, H. A. Al-Hurani, & Z. Ismail

Sperm Kinematics and Morphology of Bali Bull (*Bos javanicus*) after Freezing and Thawing Treated with Green Tea Extract in Extender
R. A. Prastiya, A. E. Debora, A. Wijayanti, B. Agustono, A. L. Saputro, A. Amaliya, & S. M. Sasi

A Novel SNPs of the *SREBF1* and *SCARB1* Genes and the Association with Fatty Acid Profile in Bali Cattle
Dairoh, M. F. Ulum, Jakaria, A. B. L. Ishak, & C. Sumantri

Productivity and Nutritive Value of Mutant Benggala Grass (*Panicum maximum* cv Purple Guinea) in the Saline Soil of Coastal Area in Lebak-Banten Province
A. Fanindi, E. Sutedi, I. Herdiawan, Sajimin, H. Harmini, C. Hidayat, R. Krisnan, & D. Yulistiani

Evaluation of Dietary Inorganic and Organic Selenium Sources on Immune Organ, Plasma Immunoglobulins, Blood Biochemical, and Performance of Broilers: A Meta-Analysis
I. Wijayanti, S. T. Risyahadi, H. A. Sukria, Y. Retnani, A. Jayanegara, R. I. Kusuma, M. S. Daulai, & Q. N. Hasanah

Performance, Egg Quality, Bone Health, and Immunity Assessments of Lohmann Laying Hens Supplemented with Vitamin D3 in the Diet
G. M. Yusuf, Sumiati, R. Mutia, W. W. Wardani, I. Akbar, & N. D. S. Putri

Growth Performance and Pork Quality of Finishing Pigs Fed Diet Supplemented with Sacha Inchi Oil and Herbal Plants
N. C. Oanh, C. T. T. Thu, N. V. Don, & J. L. Hornick

Fat Content, Fatty Acid Composition, and Nutritional Indices/Ratios of Balut from Itik-Pinas Mallard Ducks in the Philippines
O. L. Bondoc, A. R. Ramos, & R. C. Santiago

Potential of Neuraminidase from *Pasteurella multocida* for Inhibiting Avian Influenza Virus Subtype H9N2 Replication *In Ovo*
O. N. Poetri, C. M. H. Nugroho, O. S. M. Silaen, R. S. Kurnia, D. G. B. Krisnamurti, A. Indrawati, N. Hikmah, I. P. P. K. Hariyadi, M. A. Putra, & A. Soebandrio

Antidiabetic and Hypolipidemic Potential of Cow's Milk Yogurt with the Addition of Herbal Extracts in Diabetic Rats
D. F. Pazra, M. Purwanti, K. S. Handayani, Wahyuningsih, & S. Wahyuardani

Heavy Metals Cd, Hg, and Pb in Fresh Milk from Dairy Farms in South Jakarta Analyzed by ICP-MS
E. M. Silalahi, H. N. Lioe, & D. N. Faridah

Local Chickens Farming System Characteristics and Their Genetic Resources Management in Seno Province of Burkina Faso
R. W. Ouédraogo, K. Tindano, F. G. Traoré, S. A. R. Tapsoba, M. Sanou, H. H. Tamboura, B. Bayala, & A. Traoré



Tropical Animal Science *Journal*

Accredited by Directorate General of Higher Education, Research, and Technology
Ministry of Education, Culture, Research, and Technology, Republic of Indonesia
No: 225/E/KPT/2022

EDITORIAL TEAM

CHIEF EDITOR

Komang G. Wiryawan, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 7801509481)

ASSOCIATE EDITORS

Luki Abdullah, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 56745076500)

Jakaria, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57031826400)

Sri Mulatsih, Faculty of Economics and Management, IPB University, Indonesia (Scopus ID: 57202135016)

Sri Suharti, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57195329169)

Tuti Suryati, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 55972366100)

INTERNATIONAL ADVISORY EDITORS

Abdul Razak Alimon, Faculty of Agriculture, Universiti Putra Malaysia, Malaysia (Scopus ID: 6603104909)

Jong K. Ha, Seoul National University, South Korea (Scopus ID: 7202103302)

Junichi Takahashi, Obihiro University of Agriculture and Veterinary Medicine, Japan (Scopus ID: 14627747100)

Metha Wanapat, Faculty of Agriculture, Khon Kaen University, Thailand (Scopus ID: 35611069000)

EDITORIAL BOARDS

Anjas Asmara B. Samsudin, Faculty of Agriculture, Universiti Putra Malaysia, Malaysia (Scopus ID: 54401635800)

Anuraga Jayanegara, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 36967556600)

Arief Boediono, School of Veterinary Medicine and Biomedical Sciences, IPB University, Indonesia (Scopus ID: 9040094200)

Armagan Hayirli, Faculty of Veterinary Medicine, Ataturk University, Turkey (Scopus ID: 6603278636)

Asep Gunawan, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57217603625)

A. K. Thiruvekadan, Tamil Nadu Veterinary and Animal Sciences University, India (Scopus ID: 6603017632)

Beob Gyun Kim, Department of Animal Science and Technology, Konkuk University, South Korea (Scopus ID: 26654167200)

Budi Santoso, Faculty of Animal Science, University of Papua, Indonesia (Scopus ID: 56349607800)

Burhanudin Sundu, Faculty of Agriculture, Tadulako University, Indonesia (Scopus ID: 12807405800)

Cahyo Budiman, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 30367583300)

Cece Sumantri, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 6601992915)

Despal, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57190671699)

Damiano Cavallini, Department of Veterinary Medical Science, University of Bologna, Italy (Scopus ID: 57202249924)

Doohong Min, Department of Agronomy, Kansas State University, USA (Scopus ID: 7201669188)

Elizabeth Wina, Indonesian Research Institute for Animal Production, Indonesia (Scopus ID: 8566020700)

Epi Taufik, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 54944538500)

Irma Isnafia Arief, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 56355088400)

Loh Teck Chwen, Faculty of Agriculture, Universiti Putra Malaysia, Malaysia (Scopus ID: 57212574896)

Lucia Cyrilla, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57190664471)

Mulyoto Pangestu, Faculty of Medicine, Nursing and Health Sciences, Monash University, Australia (Scopus ID: 35488897500)

Myunggi Baik, College of Agriculture and Life Sciences, Seoul National University, South Korea (Scopus ID: 7006971317)

Nahrowi, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 6603628066)

Neelesh Sharma, Sher-e-Kashmir University of Agricultural Sciences & Technology of Jammu (SKUAST-J), India (Scopus ID: 57205213244)

Rita Mutia, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57188699936)

Rudi Afnan, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57188706534)

Tugay Ayaşan, Osmaniye Korkut Ata University Kadirli Faculty of Applied Sciences, Osmaniye/Turkey (Scopus ID: 34975121000)

Vincent Niderkorn, French National Institute for Agriculture, Food, and Environment (INRAE), France (Scopus ID: 14619705100)

Wasmen Manalu, School of Veterinary Medicine and Biomedical Sciences, IPB University, Indonesia (Scopus ID: 6701769736)

Windi Al Zahra, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 56331223100)

Yuan-Yu Lin, Department of Animal Science and Technology, National Taiwan University, Taiwan (R.O.C.) (Scopus ID: 55749317700)

TECHNICAL EDITORS

Irma Nuranthy Purnama, Faculty of Animal Science, IPB University, Indonesia

Yuni Cahya Endrawati, Faculty of Animal Science, IPB University, Indonesia (Scopus ID: 57224529281)

Tropical Animal Science *Journal*

Accredited by Directorate General of Higher Education, Research, and Technology
Ministry of Education, Culture, Research, and Technology, Republic of Indonesia
No: 225/E/KPT/2022

PUBLISHER

Faculty of Animal Science, IPB University (Bogor Agricultural University) associated with Animal Scientist's Society of Indonesia

SCOPE OF JOURNAL

Tropical Animal Science Journal receives original manuscripts encompass a broad range of research topics in tropical animal sciences: breeding and genetics, reproduction and physiology, nutrition, feed sciences, agrotology, animal products, biotechnology, behaviour, welfare, health and veterinary, livestock farming system, socio-economic, animal waste management, and policy.

Authors have to prepare the manuscripts according to Tropical Animal Science Journal's guidelines. Manuscript and statement of originality and copyright release form (Form A) should be submitted via online submission through journal website: <https://journal.ipb.ac.id/index.php/tasj>.

ABOUT JOURNAL

Tropical Animal Science Journal (Trop. Anim. Sci. J.) previously Media Peternakan is a scientific journal covering broad aspects of tropical animal sciences. Started from 2018, the title is changed from Media Peternakan in order to develop and expand the distribution as well as increase the visibility of the journal. The journal is published FOUR times a year in March, June, September, and December by Faculty of Animal Science, IPB University (Bogor Agricultural University), associated with Animal Scientist's Society of Indonesia.

Tropical Animal Science Journal is a peer reviewed journal that has been indexed and abstracted in Elsevier products (Scopus, Reaxys), Clarivate Analytics product (Emerging Sources Citation Index), Scimago Journal Rank, ASEAN Citation Index, DOAJ, Dimensions-Digital Science, CABI, EBSCO, Science and Technology Index (SINTA), Google Scholar, and other scientific databases. The journal also uses Similarity Check to prevent any suspected plagiarism in the manuscripts.

SECRETARIAT OF TROPICAL ANIMAL SCIENCE JOURNAL

Faculty of Animal Science Building, IPB University
Jalan Agatis, Kampus IPB Dramaga, Bogor 16680, West Java, Indonesia
Phone: +62-251-8622841 / Fax: +62-251-8622842
e-mail: mediapeternakan@apps.ipb.ac.id; mediapeternakan@yahoo.co.id
website: <https://journal.ipb.ac.id/index.php/tasj>

Tropical Animal Science *Journal*

Accredited by Directorate General of Higher Education, Research, and Technology
Ministry of Education, Culture, Research, and Technology, Republic of Indonesia
No: 225/E/KPT/2022

HISTORY

Tropical Animal Science Journal (Trop. Anim. Sci. J.) (p-ISSN 2615-787X and e-ISSN 2615-790X) previously Media Peternakan (published from 1967-2017 with p-ISSN 0126-0476 and e-ISSN 2087-4634) is a scientific journal covering broad aspects of tropical animal sciences. Started from 2018, the title is changed from Media Peternakan in order to develop and expand the distribution as well as increase the visibility of the journal. The journal is published FOUR times a year in March, June, September, and December started from the year 2020 by Faculty of Animal Science, IPB University (Bogor Agricultural University), associated with Animal Scientist's Society of Indonesia.

The first edition with the new title was published in April 2018 edition (Vol 41 No 1 2018), while the previous edition (up to 2017 edition) still use Media Peternakan as the title. The online version of Tropical Animal Science Journal could be accessed in the new website (<https://journal.ipb.ac.id/index.php/tasj>) and the previous editions are available in the old website (<https://journal.ipb.ac.id/index.php/mediapeternakan>).

Tropical Animal Science Journal has been indexed and abstracted in Elsevier products (Scopus, Reaxys), Clarivate Analytics products (Emerging Sources Citation Index), Scimago Journal Rank, ASEAN Citation Index, DOAJ, Dimensions-Digital Science, CABI, EBSCO, Science and Technology Index (SINTA), Google Scholar, and other scientific databases. The journal also uses Similarity Check to prevent any suspected plagiarism in the manuscripts.

Tropical Animal Science Journal

Accredited by Directorate General of Higher Education, Research, and Technology
Ministry of Education, Culture, Research, and Technology, Republic of Indonesia
No: 225/E/KPT/2022

LIST OF CONTENT

Genome-Wide Association Study for Body Weight and Carcass Weight in Sumba Ongole Bulls (<i>Bos indicus</i>) Hartati & W. P. B. Putra	389
Comparison of Different Lecithin Diluents for Cryopreservation of Toraya Buffalo Semen R. M. J. Riwu, R. I. Arifiantini, & N. W. K. Karja	396
Estimates of Heritabilities of Milk Fat and Milk Protein and Their Correlations with Milk Yield in Sahiwal Cattle of Punjab Pakistan J. A. Baig, G. Bilal, M. Moaeen-ud-din, M. Ulhaq, H. M. Waheed, M. S. Khan, A. Qayyum, F. Ahad, K. Farooq, M. S. Anwar, T. Israr, M. Akhtar, A. Manan, M. I. Qamar, M. I. Gorski, A. Rehman, M. Irfan, F. Ahmed, & B. Haider	403
Phylogenetic Grouping and Antibiogram of ESBL-Producing <i>Escherichia coli</i> Isolated from Bovine Mastitis Y. H. Tarazi, M. H. Gharaibeh, H. A. Al-Hurani, & Z. Ismail	410
Sperm Kinematics and Morphology of Bali Bull (<i>Bos javanicus</i>) after Freezing and Thawing Treated with Green Tea Extract in Extender R. A. Prastiya, A. E. Debora, A. Wijayanti, B. Agustono, A. L. Saputro, A. Amaliya, & S. M. Sasi	418
A Novel SNPs of the <i>SREBF1</i> and <i>SCARB1</i> Genes and the Association with Fatty Acid Profile in Bali Cattle Dairoh, M. F. Ulum, Jakaria, A. B. L. Ishak, & C. Sumantri	428
Productivity and Nutritive Value of Mutant Benggala Grass (<i>Panicum maximum</i> cv Purple Guinea) in the Saline Soil of Coastal Area in Lebak-Banten Province A. Fanindi, E. Sutedi, I. Herdiawan, Sajimin, H. Harmini, C. Hidayat, R. Krisnan, & D. Yulistiani	439
Evaluation of Dietary Inorganic and Organic Selenium Sources on Immune Organ, Plasma Immunoglobulins, Blood Biochemical, and Performance of Broilers: A Meta-Analysis I. Wijayanti, S. T. Risyahadi, H. A. Sukria, Y. Retnani, A. Jayanegara, R. I. Kusuma, M. S. Daulai, & Q. N. Hasanah	451
Performance, Egg Quality, Bone Health, and Immunity Assessments of Lohmann Laying Hens Supplemented with Vitamin D3 in the Diet G. M. Yusuf, Sumiati, R. Mutia, W. W. Wardani, I. Akbar, & N. D. S. Putri	461
Growth Performance and Pork Quality of Finishing Pigs Fed Diet Supplemented with Sacha Inchi Oil and Herbal Plants N. C. Oanh, C. T. T. Thu, N. V. Don, & J. L. Hornick	471
Fat Content, Fatty Acid Composition, and Nutritional Indices/Ratios of Balut from Itik-Pinas Mallard Ducks in the Philippines O. L. Bondoc, A. R. Ramos, & R. C. Santiago	478
Potential of Neuraminidase from <i>Pasteurella multocida</i> for Inhibiting Avian Influenza Virus Subtype H9N2 Replication <i>In Ovo</i> O. N. Poetri, C. M. H. Nugroho, O. S. M. Silaen, R. S. Kurnia, D. G. B. Krisnamurti, A. Indrawati, N. Hikmah, I. P. P. K. Hariyadi, M. A. Putra, & A. Soebandrio	487
Antidiabetic and Hypolipidemic Potential of Cow's Milk Yogurt with the Addition of Herbal Extracts in Diabetic Rats D. F. Pazra, M. Purwanti, K. S. Handayani, Wahyuningsih, & S. Wahyuwardani	494
Heavy Metals Cd, Hg, and Pb in Fresh Milk from Dairy Farms in South Jakarta Analyzed by ICP-MS E. M. Silalahi, H. N. Lioe, & D. N. Faridah	502
Local Chickens Farming System Characteristics and Their Genetic Resources Management in Seno Province of Burkina Faso R. W. Ouédraogo, K. Tindano, F. G. Traoré, S. A. R. Tapsoba, M. Sanou, H. H. Tamboura, B. Bayala, & A. Traoré	509