

Tropical Animal Science Journal

Genetic Diversity of Various Goat Breeds in East Java Based on DNA Microsatellite Markers
T. E. Susilorini, D. Wulandari, A. Furqon, W. A. Septian, F. Saputra, & S. Suyadi

A Novel SNPs of KISS1 Gene Strongly Associated with Litter Size in Indonesian Goat Breeds
A. Febriana, S. Sutopo, E. Kurnianto, & W. Widiyanto

The Viabilities of Freeze-Thaw Pasundan-Bull Sperms After a Short-Term Exposure to Media with Different pHs
R. Widyastuti, N. M. D. Haq, D. N. Pristihadi, Wahyudin, H. Maheshwari, C. Sumantri, & A. Boediono

Factors Associated with the Odds of Pregnancy for Dairy Cattle after Treatment of Ovarian Disorders in Northern Vietnam
S. T. Long, N. C. Toan, P. V. Gioi, & P. T. Hang

The Quality of Frozen Semen of Limousin Bull in Various Semen Diluents
A. A. Arif, T. Maulana, E. M. Kainin, B. Purwantara, & R. I. Arifiantini

The Influence of a Tropical Climate with a Long Dry Season on Goat Semen Quality and Seminal Fluid Change in the Kanchanaburi Province, Thailand
S. Kimsakulvech, C. Nakthong, Y. Lanamtiang, & T. Wongtawan

Protodioscin Content, Degradation Kinetics, and *In Vitro* Digestibility of Marandu Palisadegrass Hay as were Affected by Cutting Interval of the Canopy
F. O. C. G. Coca, E. N. O. Gomes, L. Junges, L. C. V. Ítavo, L. M. Nonato, F. K. Gomes, C. C. B. F. Ítavo, G. S. Difante, & A. M. Dias

Production Potential and Quality of *Panicum maximum* Cultivars Established in a Semi-Arid Environment
M. de G. Pereira, G. dos S. Difante, L. C. V. Ítavo, J. G. Rodrigues, A. L. C. Gurgel, A. M. Dias, C. C. B. F. Ítavo, E. L. de L. Veras, A. B. G. da Costa, & G. O. de A. Monteiro

Egg Production, Egg Quality, and Fatty Acid Profile of Indonesian Local Ducks Fed with Turmeric, Curcuma, and Probiotic Supplementation
I. Ismoyowati, D. Indrasanti, A. Ratriyanto, & Sumiati

Morphological Characteristics and Nutritional Quality of Mutant Benggala Grass (*Panicum maximum* cv Purple Guinea) Generation M1V3
A. Fanindi, S. H. Sutjahjo, S. I. Aisyah, & N. D. Purwanti

Selenium Application in Improving Chicory (*Cichorium intybus*) Productivity and Quality
N. Umami, E. R. V. Rahayu, B. Suhartanto, A. Agus, & M. M. Rahman

Colostrum Quality of Ewe Fed Flushing Diet Containing EPA and DHA Associated with Lamb Performance
A. Nurlatifah, L. Khotijah, R. I. Arifiantini, M. S. Maidin, & D. A. Astuti

Bone Measurements of Arginine Deficient Broilers Growing under Warm Temperatures
H. T. Dao, A. F. Moss, E. J. Bradbury, & R. A. Swick

The Color Fastness and Quality of Eco-Printed Leather with Different Types of Mordant in Natural Dyes from Mangrove Extract (*Rhizophora mucronata*)
W. Pancapalaga, E. Ishartati, & T. Ambarwati

A Typological Analysis of Dairy Farms Based on Bulk Milk Price
V. D. V. Costa, R. R. Martinelli, & F. I. Bánkuti



Tropical Animal Science *Journal*

Accredited by Directorate General of Strengthening for Research and Development,
Ministry of Research, Technology and Higher Education of the Republic of Indonesia
No: 30/E/KPT/2018

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, Faculty of Veterinary Medicine, 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)

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)

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)

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

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

Wasmen Manalu, Faculty of Veterinary Medicine, IPB University, Indonesia (Scopus ID: 6701769736)

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 Strengthening for Research and Development,
Ministry of Research, Technology and Higher Education of the Republic of Indonesia
No: 30/E/KPT/2018

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, agrostology, 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: <http://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 (Bogor Agricultural University)
Jalan Agatis, Kampus IPB Dramaga, Bogor 16680, Indonesia
Phone/Fax: +62-251-8421692
e-mail: mediapeternakan@apps.ipb.ac.id
website: <http://journal.ipb.ac.id/index.php/tasj>

Subscription Rate (Not including shipping and handling):

IDR 100.000/ edition and IDR 350.000/ year (Indonesian subscribers); 50 US\$ (Foreign subscribers)
Bank account: Bank Rakyat Indonesia KCP KAMPUS IPB No. 0595-01-005208-53-3, o.b. Media Peternakan,
SWIFT CODE: BRINIDJA

Tropical Animal Science *Journal*

Accredited by Directorate General of Strengthening for Research and Development,
Ministry of Research, Technology and Higher Education of the Republic of Indonesia
No: 30/E/KPT/2018

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 (<http://journal.ipb.ac.id/index.php/tasj>) and the previous editions are available in the old website (<http://medpet.journal.ipb.ac.id/>).

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 Strengthening for Research and Development,
Ministry of Research, Technology and Higher Education of the Republic of Indonesia
No: 30/E/KPT/2018

LIST OF CONTENT

Genetic Diversity of Various Goat Breeds in East Java Based on DNA Microsatellite Markers T. E. Susilorini, D. Wulandari, A. Furqon, W. A. Septian, F. Saputra, & S. Suyadi	247
A Novel SNPs of KISS1 Gene Strongly Associated with Litter Size in Indonesian Goat Breeds A. Febriana, S. Sutopo, E. Kurnianto, & W. Widiyanto	255
The Viabilities of Freeze-Thaw Pasundan-Bull Sperms After a Short-Term Exposure to Media with Different pHs R. Widyastuti, N. M. D. Haq, D. N. Pristihadi, Wahyudin, H. Maheshwari, C. Sumantri, & A. Boediono	270
Factors Associated with the Odds of Pregnancy for Dairy Cattle after Treatment of Ovarian Disorders in Northern Vietnam S. T. Long, N. C. Toan, P. V. Gioi, & P. T. Hang	277
The Quality of Frozen Semen of Limousin Bull in Various Semen Diluents A. A. Arif, T. Maulana, E. M. Kaiin, B. Purwantara, & R. I. Arifiantini	284
The Influence of a Tropical Climate with a Long Dry Season on Goat Semen Quality and Seminal Fluid Change in the Kanchanaburi Province, Thailand S. Kimsakulvech, C. Nakthong, Y. Lanamtiang, & T. Wongtawan	291
Protodioscin Content, Degradation Kinetics, and <i>In Vitro</i> Digestibility of Marandu Palisadegrass Hay as were Affected by Cutting Interval of the Canopy F. O. C. G. Coca, E. N. O. Gomes, L. Junges, L. C. V. Ítavo, L. M. Nonato, F. K. Gomes, C. C. B. F. Ítavo, G. S. Difante, & A. M. Dias	299
Production Potential and Quality of <i>Panicum maximum</i> Cultivars Established in a Semi-Arid Environment M. de G. Pereira, G. dos S. Difante, L. C. V. Ítavo, J. G. Rodrigues, A. L. C. Gurgel, A. M. Dias, C. C. B. F. Ítavo, E. L. de L. Veras, A. B. G. da Costa, & G. O. de A. Monteiro	308
Egg Production, Egg Quality, and Fatty Acid Profile of Indonesian Local Ducks Fed with Turmeric, Curcuma, and Probiotic Supplementation I. Ismoyowati, D. Indrasanti, A. Ratriyanto, & Sumiati	319
Morphological Characteristics and Nutritional Quality of Mutant Benggala Grass (<i>Panicum maximum</i> cv Purple Guinea) Generation M1V3 A. Fanindi, S. H. Sutjahjo, S. I. Aisyah, & N. D. Purwanti	327
Selenium Application in Improving Chicory (<i>Cichorium intybus</i>) Productivity and Quality N. Umami, E. R. V. Rahayu, B. Suhartanto, A. Agus, & M. M. Rahman	337
Colostrum Quality of Ewe Fed Flushing Diet Containing EPA and DHA Associated with Lamb Performance A. Nurlatifah, L. Khotijah, R. I. Arifiantini, M. S. Maidin, & D. A. Astuti	348
Bone Measurements of Arginine Deficient Broilers Growing under Warm Temperatures H. T. Dao, A. F. Moss, E. J. Bradbury, & R. A. Swick	356
The Color Fastness and Quality of Eco-Printed Leather with Different Types of Mordant in Natural Dyes from Mangrove Extract (<i>Rhizophora mucronata</i>) W. Pancapalaga, E. Ishartati, & T. Ambarwati	368
A Typological Analysis of Dairy Farms Based on Bulk Milk Price V. D. V. Costa, R. R. Martinelli, & F. I. Bánkuti	374