



Journal of the Indonesian Tropical Animal Agriculture



Jurnal Pengembangan Peternakan Tropis

Indexed by





















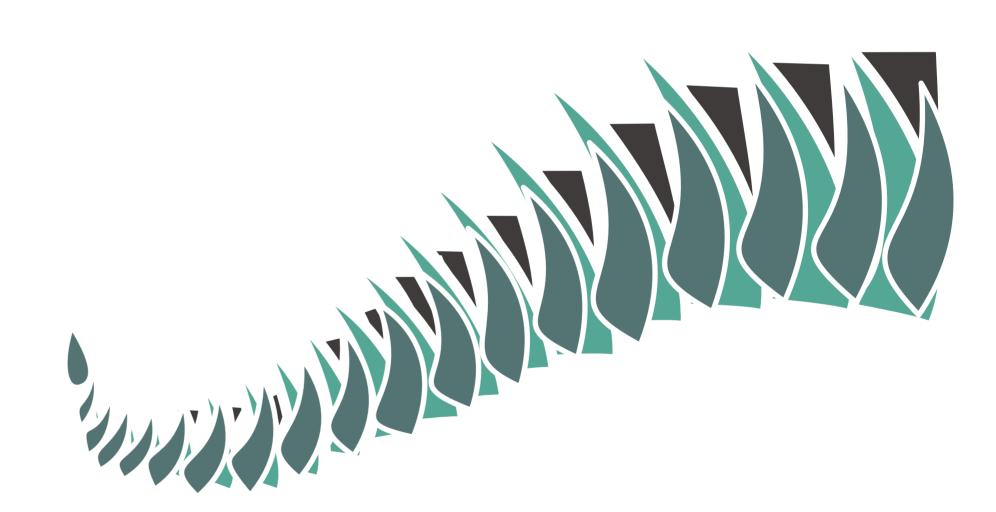




Journal of J. Indonesian Trop. Anim. Agric. pISSN 2087-8273 eISSN 2460-6278 the Indonesian Tropical Animal Agriculture

Accredited by DGSRD No.: 60/E/KPT/2016 [2016-2021]

Vol. 43 No. 1 March 2018



Jointly Published by Faculty of Animal and Agricultural Sciences-Diponegoro University and Indonesian Society of Animal Agriculture (ISAA)

Journal of the Indonesian Tropical Animal Agriculture

J. Indonesian Trop. Anim. Agric.

pISSN 2087-8273 eISSN 2460-6278

EDITORIAL TEAM

Editor-in-Chief : Edy Kurnianto [Diponegoro University, Semarang-Indonesia]

: Agung Purnomoadi [Diponegoro University, Semarang-Indonesia] Associate Editors

Joelal Achmadi [Diponegoro University, Semarang-Indonesia]

Karno [Diponegoro University, Semarang-Indonesia] Sugiharto [Diponegoro University, Semarang-Indonesia]

International Editorial Boards : Abdulmojeed Yakubu [Nasarawa State University, Nigeria]

Anang Muhammad Legowo [Diponegoro University, Semarang-Indonesia]

Arda Yildirim [Gaziosmanpasa University, Turkey]

Atien Priyanti [Center for Animal Research and Development, Bogor-Indonesia]

Budi Hartono [Brawijaya University, Malang-Indonesia] Budi Indarsih [Mataram University, Mataram-Indonesia]

Cece Sumantri [Bogor Agricultural University, Bogor-Indonesia] Chalong Wachirapakorn [Khon Kaen University, Thailand]

Dian Wahyu Harianti [Diponegoro University, Semarang-Indonesia] Juni Sumarmono [Jenderal Soedirman University, Purwokerto-Indonesia]

Khalil [Andalas University, Padang-Indonesia]

Muhammad Cahyadi [Sebelas Maret University, Surakarta-Indonesia]

Mukh Arifin [Diponegoro University, Semarang-Indonesia]

Ni Wayan Kurnia Karja [Bogor Agricultural University, Bogor-Indonesia]

Nyoman Suthama [Diponegoro University, Semarang-Indonesia] Retno Adiwinarti [Diponegoro University, Semarang-Indonesia] Sumeet Sharma [Edmonton North Animal Hospital, Alberta, Canada]

Sumiati [Bogor Agricultural University, Bogor-Indonesia] Takuro Oikawa [University of the Ryukyus, Japan]

Tety Hartatik [Gadjah Mada University, Yogyakarta-Indonesia] Titik Ekowati [Diponegoro University, Semarang-Indonesia] Umar Paputungan [Sam Ratulangi University, Manado-Indonesia]

Vincenzo Tufarelli [University of Bari 'Aldo Moro', Italy] Wan Zahari Muhamed [Universiti Malaysia Kelantan, Malaysia]

Layout Editor : Rahmat Wibowo [Diponegoro University, Semarang-Indonesia]

Editorial Address:



Journal of the Indonesian Tropical Animal Agriculture Faculty of Animal and Agricultural Sciences, Diponegoro University Campus Drh. Soejono Koesoemowardojo Tembalang - Semarang 50275 INDONESIA Phone/Fax: 024 - 7474750 JITAA E-mail: jppt.fpundip@gmail.com

ISAA E-mail: isaa_ina@yahoo.com

JITAA Website: ejournal.undip.ac.id/index.php/jitaa



The front cover illustrates the sketch of leaves and seeds of legume and grass forming a buffalo's horn (designed by Agung Purnomoadi)

JOURNAL OF THE INDONESIAN TROPICAL ANIMAL AGRICULTURE

History

MEDIA was the first academic bulletin at Faculty of Animal Science and Fisheries, Diponegoro University in 1975. Along with the development of livestock and fisheries field in the faculty, the faculty was splitted into the Faculty of Animal Science and Faculty of Fisheries. Consequently, there was a change of the journal name from MEDIA to Jurnal Pengembangan Peternakan Tropis (JPPT) in 1998.

JPPT awarded accreditation at the first time in 1999 by Directorate General of Higher Education, Republic of Indonesia. The accrediation was obtained every three years until 2011. JPPT is published on March, June, September and December.

JPPT was awarded the internationalization grant from 2009 to 2011. Consequently, JPPT no longer publish's articles in Indonesian, but all articles have been published in English since September 2009. The name of JPPT, therefore, was changed officially to Journal of the Indonesian Tropical Animal Agriculture (JITAA) in 2009.

JITAA was accredited for a period of five years from 2011 to 2016. JITAA was accredited again by Directorate General of Strengthening for Research and Development-Ministry of Research, Technology and Higher Education-Republic of Indonesia in 2016 for a period of five years started from November 18, 2016 with No 60/E/KPT/2016. JITAA as the open access journal has been indexed by Scopus, Emerging Sources Citation Index (ESCI)-Clarivate Analytics, Asean Citation Index (ACI), Directory of Open Access Journal (DOAJ), Google Scholar, CAB International, EBSCO, SHERPA/RoMEO, Indonesian Publication Index (IPI), Shinta-Science and Technology Index, Feedipedia and Crossref.

Aims and Scopes

Journal of the Indonesian Tropical Agriculture (JITAA) is a double blind peer-reviewed publication devoted to disseminate all information contributing to the understanding and development of animal agriculture in the tropics by publication of original research papers. The topics of research are not only on Indonesian tropical animal agriculture, but also on other tropical regions of the world. The journal covers all aspect relating to animal agriculture, including animal breeding and genetics, animal feeding and nutrition, animal reproduction, animal biotechnology, animal physiology, animal products animal products processing and animal by-products, animal microbiology, livestock farming systems, and other topics in relation to animal sciences.

Publication Ethics and Malpractice Statement

SECTION I: Publication

- 1. All submitted manuscript are reviewed by at least two reviewers who expertise in their subject.
- 2. The originality, soundness, novelty and language are factors that are taken into account in review by reviewers.
- 3. The results of review are categorized into eligible to publish in Journal of the Indonesian Tropical Animal Agriculture (JITAA) without revision, eligible to publish in JITAA with minor revision, eligible to publish in JITAA with major revision, and rejection.
- 4. If authors are encouraged to revise and resubmit a manuscript, then there is no guarantee that the revised submission will be accepted.
- 5. Rejected manuscript not be re-reviewed.

SECTION II: Editor

- 1. Editors have full responsibility and authority to reject/accept an manuscript.
- 2. Editors should guarantee the quality of the papers published in JITAA.

- 3. Editors should provide all information needed by aouthors to improve the publication.
- 4. Editors should preserve the identity or anonymity of reviewers.
- 5. Editors should publish errata page when needed.
- 6. Editors should not allow any conflicts of interest among authors, reviewers and board members.

SECTION III: Authors

- 1. Authors have to certify that the manuscript has not previously been published or is not being considered for publication elsewhere.
- 2. Authors have to certify that manuscript submitted is free from plagiarism.
- 3. Authors state that experiment conducted is according to national, international or applicable regulations for conducting scientific research.
- 4. Authors have to follow the rule of guideline of JITAA.
- 5. Authors state that all data analyzed are real.

SECTION IV: Reviewers

- 1. Reviewers should evaluate a manuscript solely on academic merits, in which if a conflict of interest is detected it should be immediately notified to the editor.
- 2. Reviewers have to keep all information relating to the manuscript reviewed.
- 3. Reviewers should review a manuscript objectively.
- 4. Reviewers should notify clearly on unclear statement written by authors.
- 5. Reviewers should not review manuscripts in which they have conflicts of interest resulting from competitive or relationships with any of the authors.
- 6. If plagiarism is detected, reviewers should notify the editors immediately.

CONTENTS

Genotype analysis of partial growth hormone gene (GH891 MspI) in Pesisir cattle and Simmental-Pesisir crossbred cattle - T. Hartatik, D. E. Putra, S. D. Volkandari, T. Kanazawa and Sumadi	1 - 8
Kanazawa anu Sumaui	1 - 0
Morphometrics and genetic diversity of Tegal, Magelang and their crossbred ducks based on Cytochrome b gene - Henrik, D. Purwantini and Ismoyowati	9 - 18
Leucocyte profile and offspring production of guinea pig (Cavia cobaya) given Anredera cordifolia leaf extract - D. Wijayanti, E. T. Setiatin and E. Kurnianto	19 - 25
Evaluation of semen quality of buffalo frozen semen produced by Artificial Insemination Center - H. C. Mahendra, D. Samsudewa and Y. S. Ondho	26 - 34
Effect of tomato (Solanum lycopersicum L) protein on carcass and meat quality of kampong chicken - J. R. Leke, J. S. Mandey, F. Ratulangi and M. Najoan	35 - 42
Nitrogen balance, microbial protein synthesis and blood metabolites in fattening of male Bali cattle fed ration with different protein levels in smallholder farms - P. K. Tahuk, S. P. S. Budhi, Panjono and E. Baliarti	43 - 53
The effect of medicinal herb on fat deposition, meat composition, amino acid and fatty acid composition of broiler meats - U. Santoso, Y. Fenita, Kususiyah, O. Widiantoro and S. Kadarsih	54 - 65
Impact of curcumin supplementation in monochromatic light on lipid serum profile of sexually mature female Magelang ducks - Kasiyati, Sumiati, D. R. Ekastuti and W. Manalu	66 - 75
The factors influencing production and economic efficiency of beef cattle farm in Grobogan Region, Central Java - T. Ekowati, E. Prasetyo and M. Handayani	76 - 84
Author Index	85
Acknowledgment	85

Journal of the Indonesian Tropical Animal Agriculture [JITAA-pISSN 2087-8273 and eISSN 2460-6278, formerly Jurnal Pengembangan Peternakan Tropis-JPPT] is accredited by Directorate General of Strengthening for Research and Development - Ministry of Research, Technology and Higher Education, Republic of Indonesia No. 60/E/KPT/2016 for a period of five years started from November 18, 2016.

JITAA is jointly published by Faculty of Animal and Agricultural Sciences - Diponegoro University and Indonesian Society of Animal Agriculture in March, June, September and December. All rights reserved.

JITAA is indexed by Scopus, Emerging Sources Citation Index (ESCI), Asean Citation Index (ACI), DOAJ, Google Scholar, CAB International, EBSCO, SHERPA/RoMEO, Indonesian Publication Index (IPI), Shinta-Science and Technology Index, Feedipedia and Crossref.

The journal receives original papers in animal agriculture which should not have been previously published or is not being considered for publication elsewhere.

 $The \ annual \ subscription \ for \ printed \ journal \ is \ IDR \ 300.00 \ for \ domestic \ and \ US\$ \ 50.00 \ for \ overseas \ per \ year \ included \ mailing \ cost.$