

# Journal of

# the Indonesian Tropical Animal Agriculture

J. Indonesian Trop. Anim. Agric.  
pISSN 2087-8273  
eISSN 2460-6278

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

**Vol. 42 No. 2 June 2017**



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]
- Associate Editors* : Agung Purnomoadi [Diponegoro University, Semarang-Indonesia]  
Joelal Achmadi [Diponegoro University, Semarang-Indonesia]  
Karno [Diponegoro University, Semarang-Indonesia]  
Sugiharto [Diponegoro University, Semarang-Indonesia]  
Sutaryo [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]  
Armina Fariani [Sriwijaya University, Palembang-Indonesia]  
Atien Priyanti [Center for Animal Research and Development, Bogor-Indonesia]  
Bambang Ali Nugroho [Brawijaya University, Malang-Indonesia]  
Budi Indarsih [Mataram University, Mataram-Indonesia]  
Cece Sumantri [Bogor Agricultural University, Bogor-Indonesia]  
Chalong Wachirapakorn [Khon Kaen University, Thailand]  
Juni Sumarmono [Jenderal Soedirman University, Purwokerto-Indonesia]  
Lili Warly [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]  
Urip Santoso [Bengkulu University, Bengkulu-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](mailto:jppt.fpundip@gmail.com)  
ISAA E-mail: [isaa\\_ina@yahoo.com](mailto:isaa_ina@yahoo.com)  
JITAA Website: [ejournal.undip.ac.id/index.php/jitaa](http://ejournal.undip.ac.id/index.php/jitaa)



# **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 accreditation 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, Directory of Open Access Journal (DOAJ), Google Scholar, CAB International, EBSCO, Index Copernicus International, SHERPA/RoMEO, Indonesian Scientific Journal Database (ISJD), Indonesian Publication Index (IPI), CiteFactor, 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 production and technology, animal products technology, animal management and economics, 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 authors 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

Prediction of meat quality in Bali cattle using ultrasound imaging - <b>Jakaria, H. Khasanah, R. Priyanto, M. Baihaqi and M. F. Ulum</b>	59 - 65
Mathematical model of growth of two purelines of Padjadjaran female quail aged 0 to 6 weeks - <b>A.Anang, H. Indrijani and E. Sujana</b>	66 -71
The pathogenecity of H5N1 highly pathogenic Avian Influenza (HPAI) virus clade 2.3.2. in Indonesian indigenous chicken by contact transmission with infected duck - <b>R. Damayanti, A.Wiyono, H. Nuradji and M. I. Cahyono</b>	72 - 80
Urea treatment of rice straw at elevated temperature and pressure: Effects on fiber content, rumen fermentation and digestibility - <b>A. Jayanegara, R. S. K. Ayinda and E. B. Laconi</b>	81 - 87
Effect of <i>Sauropus androgynus</i> leaf extract, fish oil and vitamin E on performance, egg quality and composition in laying hens - <b>U. Santoso, Y. Fenita and E. Sulistyowati</b>	88 - 98
Effect of different accelerators and inoculums used in fermentation on quality of dead chicken silage flour as feed ingredient for catfish - <b>B. Bakrie, Y. Sastro and N. R. Sudolar</b>	99 - 108
Effect of dietary mannan-oligosaccharides from copra meal on intestinal microbes and blood profile of broiler chickens - <b>A.N.S. Putri, Sumiati and A. Meryandini</b>	109 - 119
Mineral status of Java thin-tailed sheep grazed in Mijen agriculture area, Semarang, Indonesia - <b>Widiyanto, E. Kusumanti, Mulyono, Surahmanto and V.D.Y. B. Ismadi</b>	120 - 127
Gonadal hormones level and morphometric traits in cow deliveres twin and single calves - <b>T. Yuwono, I. Sumeidiana, Y. S. Ondho and E. Kurnianto</b>	128 - 132
Author Index	133
Acknowledgment	133

*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, DOAJ, Google Scholar, CAB International, EBSCO, Index Copernicus International, SHERPA/RoMEO, Indonesian Scientific Journal Database (ISJD), Indonesian Publication Index (IPI), CiteFactor, 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.*