

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Karya Ilmiah (Artikel) : Effect of Fermented used rice as a functional feed on biochemical and haematological parameters, microbial population, internal organ weight and performance of broilers

Jumlah Penulis : **4**

Status Pengusul : **Penulis Pertama**

Identitas Jurnal Ilmiah : a. Nama Jurnal : Journal of the Indonesian Tropical Animal Agriculture
b. Nomor ISSN : 2087-8273 / 2460-6278
c. Volume,nomor : **Volume 45, No. 4, Page : 320-327 Desember 2020**,bulan, tahun
d. Penerbit : Faculty of Animal and Agricultural Sciences-Diponegoro University
e. DOI Artikel : <https://doi.org/10.14710/jitaa.45.4.320-327> (jika ada)
f. Alamat web : <https://ejournal.undip.ac.id/index.php/jitaa/index> Jurnal
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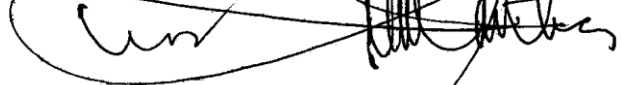
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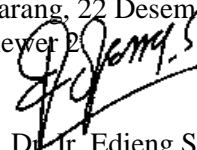
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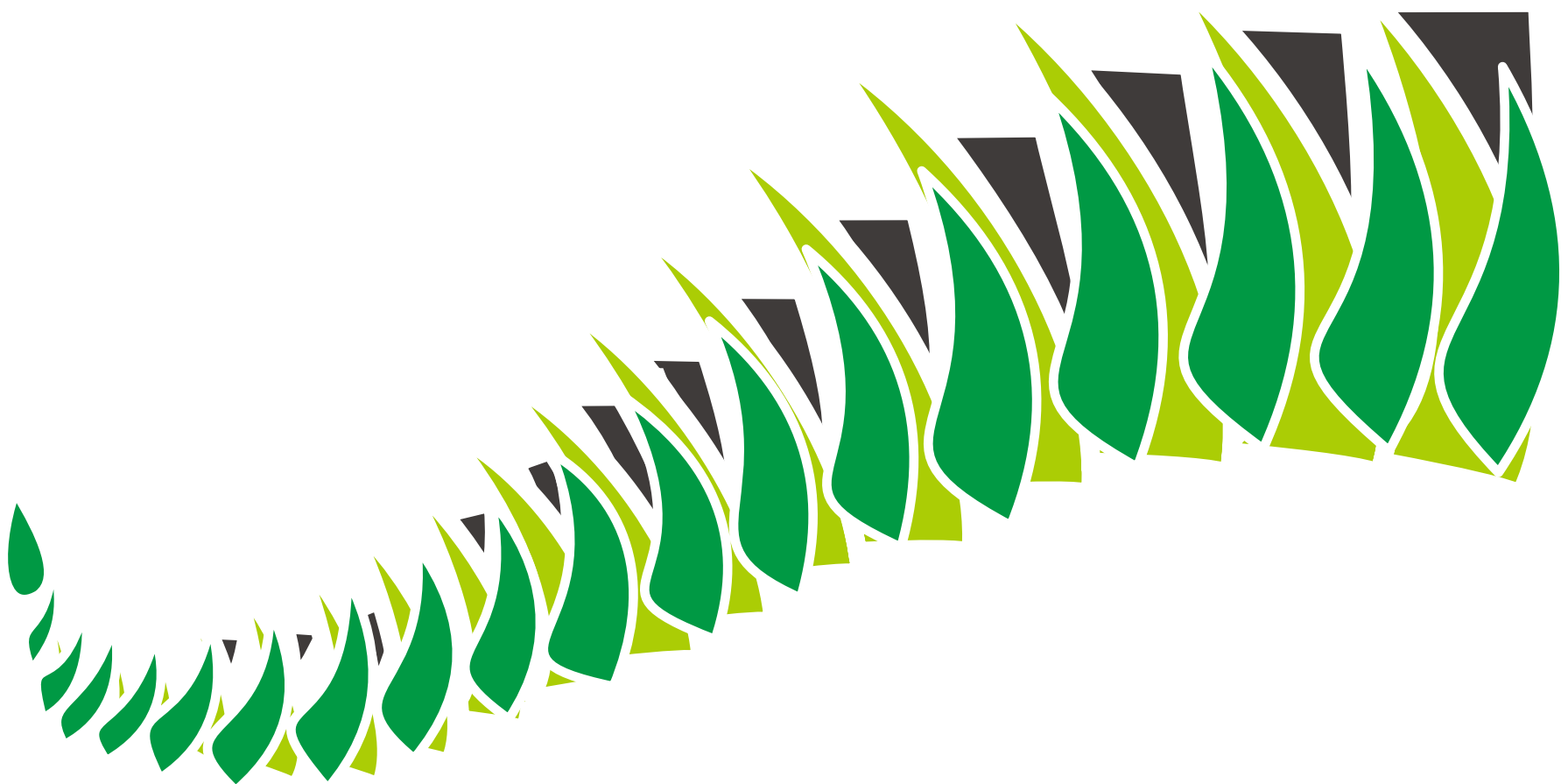
Journal of

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. 45 No. 4 December 2020



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.

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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

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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, Scimago Journal & Country Rank (SJR), Emerging Sources Citation Index (ESCI)-Clarivate Analytics, Asean Citation Index (ACI), Directory of Open Access Journal (DOAJ), Google Scholar, CAB International, EBSCO, SHERPA/RoMEO, GARUDA (Garba Rujukan Digital), Sinta-Science and Technology Index, Feedipedia and Crossref.

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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.

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Published:	18-12-2020
Number of Articles: (including Editorial)	15
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The effect of probiotic nutrition of *Saccharomyces boulardii* and *Saccharomyces cerevisiae* on yield, antioxidant activity and expression of interleukin-6 gene in Holstein calves

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Received August 06, 2020; Accepted October 20, 2020

ABSTRAK

Penelitian dilakukan untuk mengetahui pengaruh probiotik *Saccharomyces boulardii* dan *Saccharomyces cerevisiae* terhadap hasil, aktivitas antioksidan, dan ekspresi gen interleukin-6 pada pedet Holstein. Enam belas pedet dibagi menjadi 4 perlakuan ransum dengan 4 pedet/perlakuan. Pakan perlakuan eksperimental meliputi 1) kontrol (tanpa penggunaan probiotik), 2) probiotik yang larut dalam susu berdasarkan *S. boulardii* (1 g/kg), 3) probiotik yang larut dalam susu berdasarkan *S. cerevisiae* (1 g/kg) dan 4) A campuran probiotik ragi *S. boulardii* dan *S. cerevisiae* sebagai larutan dalam susu sapi (masing-masing 1 g/kg). Rancangan acak lengkap digunakan dalam penelitian ini. Hasil penelitian menunjukkan bahwa pemberian pakan *S. boulardii* dan *S. cerevisiae* tidak berpengaruh nyata dibandingkan dengan kontrol. Tidak ada perbedaan yang signifikan antara perlakuan yang berbeda untuk jumlah enzim antioksidan dibandingkan dengan kontrol. Superoksida dismutase (SOD) pada perlakuan menggunakan probiotik lebih tinggi dibandingkan dengan kontrol. Ekspresi ekspresi gen interleukin-6 meningkat secara signifikan ($P<0,05$) untuk perlakuan 3 dan 4 pada hari ke 10, 30 dan 60 dibandingkan dengan kontrol. Kesimpulannya, penambahan probiotik tidak mengubah sifat kinerja aktivitas antioksidan, tetapi perlakuan *S. cerevisiae* meningkatkan ekspresi gen interleukin-6 yang menunjukkan efek pada sistem kekebalan.

Kata kunci : probiotics, *Saccharomyces*, *Boulard's Saccharomyces*, *Holstein*, *calf*, *performance*

ABSTRACT

An experiment was performed to investigate the probiotic effect of *Saccharomyces boulardii* and *Saccharomyces cerevisiae* on yield, antioxidant activity, and expression of interleukin-6 gene in Holstein calves. Sixteen calves were divided into 4 dietary treatments with 4 calves/treatment. Experimental treatment diets include 1) control (without probiotic use), 2) milk soluble probiotics based on *S. boulardii* (1 g/kg), 3) milk soluble probiotics based on *S. cerevisiae* (1 g/kg) and 4) A mixture of yeast probiotics *S. boulardii* and *S. cerevisiae* as a solution in dairy milk (1 g/kg each). The completely randomized design was used in this experiment. The results showed that feeding *S. boulardii* and *S. cerevisiae* did not have a significant effect on performance traits compared with control. There was no significant difference between the different treatments for the number of antioxidant enzymes compared to the controls. Superoxide dismutase (SOD) in the treatments used probiotics were higher than the control. The expression of interleukin-6 gene expression was increased significantly ($P<0.05$) for treatments 3 and 4 on Days 10, 30 and 60 compared to the control. In conclusion, addition of probiotics did not alter performance traits of antioxidant activity, but the *S. cerevisiae* treatment did increase