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By Fitra Yosi

Effect of Supplementation of Lactobacillus Culture Derived from Ensiled Hymenache acutigluma through Drinking Water on Body Weight, Feed Digestibility, and Carcass Characteristics of Pegagan Ducks

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Abstract. This study aimed to evaluate the effect of supplementing Lactobacillus culture isolated from ensiled Hymenache acutigluma (LHA) with different concentrations via drinking water on body weight, diet digestibility, digestive tract measurements, and carcass characteristics of Pegagan ducks. A total of 60 24-week-old Pegagan ducks were randomly divided into 5 groups with 4 replicates per group, consisting of a control group (LHAO) and groups receiving LHA solution in drinking water at concentrations of 1x 106 (LHA1), 107 (LHA2), 108 (LHA3), and 109 (LHA4) CFU/mL. Supplementation with LHA solutions improved the relative weights of the proventriculus, duodenum, jejunum, ileum, total small intestine, and pancreas (P < 0.05), as well as the density of the duodenum, ileum, and total small intestine (P < 0.05). Dietary organic matter and crude fiber digestibility increased linearly with increasing concentration of LHA solution (P < 0.05). LHA supplementation also improved whole carcass percentage and thigh slices (P < 0.05). The percentage of abdominal fat decreased linearly with increasing concentration of LHA solution (P =

0.004). In conclusion, administration of LHA solution with increasing concentration
effectively increased the digestibility of dietary crude fiber and organic matter,
improved digestive activity, increased carcass yield, and reduced abdominal fat.

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Effect of supplementation of Lactobacillus culture derived from ensiled *Hymenache acutigluma* through drinking water on body weight, feed digestibility, and carcass characteristics of pegagan ducks

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Abstract. This study aimed to evaluate the effect of supplementing Lactobacillus culture isolated from ensiled Hymenache acutigluma (LHA) with different concentrations via drinking water on body weight, diet digestibility, digestive tract measurements, and carcass characteristics of Pegagan ducks. A total of 60 24-weekold Pegagan ducks were randomly divided into 5 groups with 4 replicates per group, consisting of a control group (LHA0) and groups receiving LHA solution in drinking water at concentrations of 1x 106 (LHA1), 107 (LHA2), 108 (LHA3), and 109 (LHA4) CFU/mL. Supplementation with LHA solutions improved the relative weights of the proventriculus, duodenum, jejunum, ileum, total small intestine, and pancreas (P < 0.05), as well as the density of the duodenum, ileum, and total small intestine (P < 0.05). Dietary organic matter and crude fiber digestibility increased linearly with increasing concentration of LHA solution (P < 0.05). LHA supplementation also improved whole carcass percentage and thigh slices (P < 0.05). The percentage of abdominal fat decreased linearly with increasing concentration of LHA solution (P = 0.004). In conclusion, administration of LHA solution with increasing concentration effectively increased the digestibility of dietary crude fiber and organic matter, improved digestive activity, increased carcass yield, and reduced abdominal fat.











BOOK OF ABSTRACT

October, 23-24th 2024 Addang, West Sumatra, Indonesia



"INNOVATIONS IN LIVESTOCK NUTRITION FOR FOOD SUSTAINABILITY AND SECURITY"

Department of Nutrition and Feed Science, Faculty of Animal Science, Universitas Andalas & Indonesian Association of Nutritionist and Feed Scientist (AINI)

BOOK OF ABSTRACT

7TH INTERNATIONAL SEMINAR OF AINI & CONGRESS 2024 (ISAINI VII)

"Innovations in Livestock Nutrition for Food Sustainability and Security"

23 October 2024, Santika Premiere Hotel, Padang, Indonesia

Editor: Simel Sowmen, Zurmiati, Robi Amizar, Sepri Reski, Rizki Dwi Setiawan

FACULTY OF ANIMAL SCIENCE UNIVERSITAS ANDALAS PADANG - INDONESIA

FOREWORD ORGANIZING COMMITTEE

Assalamu'alaikum Wr. Wb.,

The Honourable Rector of The University of Andalas, The Dean Faculty of Animal Science, University of Andalas Distinguish Guests, Seminar Participants, Ladies and Gentlemen,

It is with great pleasure and honor that I welcome you to the 7th International Seminar of the Indonesian Association of Nutritionists and Feed Scientists (ISAINI VII), held in the vibrant city of Padang, West Sumatra, at The Hotel Santika Premiere Padang on 23-24 October 2024. This year's seminar coincides with the 61st Dies Natalis of the Faculty of Animal Science, Universitas Andalas, marking a significant moment for our academic community.

ISAINI VII aims to provide a platform for scholars, researchers, and practitioners in animal science to exchange knowledge, share cutting-edge research, and explore new trends that will shape the future of livestock science in Indonesia and beyond. As we gather to discuss innovative solutions, particularly in addressing current challenges in animal production, nutrition, welfare, and sustainability, we continue our commitment to contribute to the nation's food security and the global livestock industry. This year, we gather under the theme "Innovations in Livestock Nutrition for Food Sustainability and Security," a topic of paramount importance in today's world, where global food demands constantly increase and natural resources are under greater pressure than ever. The theme for this year's seminar, reflects the growing importance of integrating modern technological advancements with traditional livestock practices, especially in the context of the Fourth Industrial Revolution and Society 5.0. It also underscores the vital role of collaboration between academia, government, industry, and society in shaping the future of animal science.

We are privileged to have distinguished invited speakers joining us for this event. Their insights and expertise are pivotal as we navigate the challenges and opportunities within animal nutrition. I would like to extend our deepest appreciation to our honored speakers:

- Assoc. Prof. Yuwares Ruangpanit, Ph.D. (Kasetsart University, Thailand)
- Dr. Reza Abdul Jabbar (Large Scale Dairy Farm, New Zealand)
- Assoc. Prof. Tan Joo Shun (University Sains Malaysia)
- Dr. Roni Pazla (University of Andalas, Indonesia)
- Dr. Thomas Schonewille (Utrecht University, Netherlands)

Their contributions will enrich our discussions and offer innovative solutions for advancing livestock nutrition and ensuring food sustainability.

This seminar brings together experts, researchers, and practitioners from various renowned institutions across the globe, including UGM, UB, UNSRI, UINSUSKA, University of Palangkaraya, University Jendral Sudirman, University Kebangsaan Malaysia, University Malaysia Sabah, University Majalengka, University Muhammadiyah Mamuju, University Prima Nusantara Bukittinggi, University Maha Putra M. Yamin, University Brawijaya, University Sam Ratulangi, University Tamansiswa Padang, and our very own University of Andalas.

The blend of online and offline presentations will foster dynamic exchanges of knowledge, ideas, and innovations, ensuring that the discussions at this seminar will have a wide-reaching impact.

As the chairperson of this event, I sincerely hope that ISAINI VII serves as a platform for inspiring new research, forming meaningful collaborations, and sparking innovative solutions that will drive the future of livestock nutrition and contribute to global food security. Let us take this opportunity to learn, share, and work together toward sustainable and secure food systems for future generations.

Thank you for your participation, and I wish you all a fruitful and rewarding seminar. Warm regards,

Dr. Ir. Rusmana Wijaya Setia Ningrat, M.Rur.Sc. IPU Chairman of the Organizing Committee 7th International Seminar of ISAINI Padang, West Sumatra, Indonesia

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CONFERENCE PROGRAM

The 7th International Seminar Of Animal Nutrition and Feed Science (ISAINI) "Innovations in Livestock Nutrition for Food Sustainability and Security"

October 22, 2024 (Tuesday)

Time	Activities	PIC
06.00-7.00 PM	Arrive at Bapeda Sumbar Office	Committee
07.00 PM	Welcome Dinner	Committee
07.30 PM	Dance	Gov. Staff
08.00 PM	Welcome remarks by: - Dean of Faculty of Animal Science - Chairman of AINI - Governor of West Sumatera	MC
09.00 PM	Arrive at Santika Hotel	Committee

October 23, 2024 (Wednesday)

Time	Activities	PIC
08.00-08.30 AM	Registration	Committee
08.30-09.30 AM	Opening ceremony	MC
	National Anthem of Indonesia "Indonesia	UKS FATERNA
	Raya"	
	Recitation of the Holy Quran	Student
	Opening Dance : Tari Pasambahan	UKS FATERNA
	Welcome remarks by:	MC
	- Rector Universitas Andalas	
09.30-09.50 AM	Keynote speakers	MC
	- Mentan RI	
09.50-10.45 AM	Invited speakers:	Moderator
	1. Assoc. Prof. Yuwares Ruangpanit, Ph,D	Prof. Maria Endo
	(Kasetsart University, Thailand)	Mahata
	2. Assoc. Prof. Tan Joo Shun (University	
	Sains Malaysia)	
	3. Dr. Thomas Schonewille (Utrecht Uni-	
	versity)	

10.45 – 11.45 AM	1. Dr. Reza Abdul Jabbar OLarge Scale	Moderator
	Dairy Farm, New Zealand)	Prof. Yose Rizal
	2. Dr. Roni Pazla (University of Andalas)	
11.45 – 12.00 AM	AINI Partner Presentation:	MC
	Cheil Jedang Indonesia (CJ Bio)	
12.00 – 01.30 PM	Break and Prayer	Committee
01.30 – 04.00 PM	Paralel Session	Committee
04.00 – 04.15 PM	Coffee break	
04.15 – 05.00 PM	Closing	MC
	- Announcement of the best paper	
	- Announcement of the next ISAINI	
	- Closing remark by AINI Regional	
	Chairman of West Sumatera Province	
05.00 - 05.50 PM	Congress AINI	General Secretary
		of AINI

October 24, 2024 (Thursday) Field Trip: BPTU Padang Mangateh

Time	Activities	PIC
06.00-07.00 AM	Arrival of participants at the gathering point:	Committee
	Santika Hotel	
07.00 AM	Departure from Padang	Committee
10.30 AM	Arrive at BPTU Padang Mangateh	Committee
12.00 PM	Lunch	Committee
01.30 PM	Head to Bukittinggi (Ngarai Sianok, Jam Ga-	Committee
	dang)	
05.30 PM	Head to Padang	
06.30 PM	Dinner	Committee
07.30 PM	Head to Padang	
09.30 PM	Arrive at Padang: Santika Hotel	Committee

7TH INTERNATIONAL SEMINAR OF AINI & CONGRESS 2024

23 October 2024, Santika Premiere Hotel, Padang, Indonesia

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