

PROCEEDING  
*4<sup>th</sup> International Seminar of AINI (ISAINI) 2015*  
*“Recent Advance in Animal Nutrition and Feed Technology to Support Sustainable*  
*Livestock Production System”.*  
Faculty of Animal Husbandry, Sam Ratulangi University, Manado North Sulawesi  
Pennisula Hotel, Manado 8-9 September 2015

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Manado, Sulawesi Utara, Indonesia

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## **WELCOMING SPEECH PRESIDENT OF AINI**

*Assalamu ‘alaikum Wr. Wb.,*

**His Excellency Governor of North Sulawesi**

**The honorable Rector of The University of Sam Ratulangi,**

**The Dean of Faculty of Animal Science, University of Sam Ratulangi,**

**Distinguish guests, participants, ladies and gentlemen,**

First of all, on behalf of the Indonesian Animal Nutritionist and Feed Scientist Association (AINI), I would like to extend our warmest welcome, and indeed it is a great pleasure to see you all in this room, participating in the 4<sup>th</sup> *International Seminar and 10<sup>th</sup> Biennial Meeting of AINI* held in Manado North Sulawesi. At this time being, AINI is almost 20 years old since its first establishment in 1996 at Bogor. AINI was created with the objectives to gather all of the animal nutrition and feed scientists in Indonesia permitting to the exchange of knowledge and experiences under spirit of brotherhood, to stimulate the advancement of science and technology in nutrition and feed science, thus benefiting to the competitiveness of livestock agribusiness.

As the president of AINI since 2007, I and all of board committee member have been trying to do the best we could do for AINI being better well known at the national and International level. This International seminar is conducted with the objective also to serve better the AINI member on new research finding and provide the forum of meeting and exchange among scientists. We have successfully conducts regular international seminar every two years, thanks to the efforts of all AINI member have been dedicated to. The first international conference was held in UNSOED Purwokerto (2009), the second was held in UNPAD Bandung (2011), the third was held in UNAND Padang West Sumatera (2013), and the forth International seminar is held here at UNSRAT Manado North Sulawesi (2015).

**Distinguish guests, participants, ladies and gentlemen,**

The recommendation made by the 3rd International Seminar of AINI (ISAINI), held in Padang, was to recommend the Faculty of Animal Husbandry, Sam Ratulangi University, Manado, to be the host for the 4<sup>th</sup> ISAINI 2015. The Theme of this International Seminar is “**Recent Advance in Animal Nutrition and Feed Technology to Support Sustainable Livestock Production System**”. Sustainable livestock production system is now become the hot issue. The huge demand of animal products such as meat egg and milk to cover the growing population in the world should be handled with care without destroying the environment. Environment and its quality are becoming more and more degrading and reducing. Indeed, the effects of global warming could be feeling now with for example the longer dry session period that might reduce even destroy agricultural products and its productivity. In the case of Indonesia, it is projected that the demand of animal products will increased significantly while the national production is not sufficient enough to cover the demand. High price of red meat

and fluctuation of poultry meat price recently indicate the phenomenon of the imbalance supply-demand. We, as the scientist especially in animal nutrition and feed science, should engage and do our best to support the government policy in fulfilling the food of animal products, quantitative and qualitatively. In this regards, role of nutrition and also Nutritionist and Feed Scientist are very important, since the feed cost is the major component cost of livestock production. During this seminar, recent advance in animal nutrition and feed science will be shared and discussed to support the sustainable livestock production system.

**Distinguish guests, participants, ladies and gentlemen,**

On behalf of the AINI, at this opportunity, I should express my sincere thanks to the Dean of the Faculty of Animal Science University of Sam Ratulangi, the organizing committee, sponsors, and all party that cannot be listed since we are deeply in debt to all of your effort and sacrifice to the success of this seminar. Our sincere thanks and deepest gratitude must go to the invited speakers : Prof. Dr. Ir. Muladno, MSA (Director General of Livestock and Animal Health, Ministries of Agriculture of The Republic Indonesia); Prof. Abdul Razak Bin Alimon, PhD from Putra University, Malaysia; Prof. Cheol-Heui Yun, PhD from Seoul National University, South Korea; Dr. Ir. Osfar Sofjan, MSc from Brawijaya University Malang; Prof. Dr. Ir. David Arnold Kaligis, DEA from Sam Ratulangi University, Manado and Felipe Sanchez Fernandez from Throuw Nutrition. We are in debt to your effort and your participation in this event. Your views will enlighten and inspire all of the participants on how to develop sustainable livestock production system through the animal nutrition and feed science intervention.

**Distinguish guests, participants, ladies and gentlemen,**

I hope you will have the fruitful meeting and gaining many new ideas and perspectives to be developed in the future. I do hope also, we will see you again in the 5<sup>th</sup> International seminar and 11<sup>th</sup> Biannual meeting (ISAINI 2017) in which the host will be determined further by the board of committee meeting during this event. Finally and surely, please enjoy your stay with North Sulawesi culture and nature, tradition and hospitality, in addition to your scientific activities.

**Thank you**

*Wassalamu ‘alaikum Wr. Wb.*

Manado, September 8<sup>th</sup>, 2015  
President of AINI

Prof. Dr. Ir. Ali Agus, DAA, DEA

## **WELCOMING SPEECH**

### **ORGINIZING COMMITTEE**

**Dear all of the scientists, delegates, participants, ladies and gentlemen,**

As the host of the AINI International Seminar, we do impress, thankful, and present a high appreciation for your participation in joining the AINI International Seminar in Manado, Indonesia, the land of waving coconut trees. We can see the very great enthusiasm of all the scientists to solve livestock problems as well as to share valuable information and knowledge for human prosperity all over the world.

A large numbers of representatives are participating in this conference, which indicates that the interest in the field of animal science is continuously increasing among member countries. We have invited some Plenary Speakers and Invited Papers who are qualified as scientists and bureaucrats in animal nutrition and feed science field to share their valuable information and knowledge. Other participants can deliver their precious research through oral and poster presentations. This Seminar is also paralleled to Indonesian Association of Animal Nutritionist and Feed Scientists (AINI) Congress held by National Board.

The theme of the AINI International Seminar is “*Recent Advance in Animal Nutrition and Feed Technology to Support Sustainable Livestock Production System*”. We believe that animal production in Indonesia has become important and strategic sector to provide high quality food, opening up job opportunities, as well as improving farmer’s welfare. Indonesian Association of Animal Nutritionist and Feed Scientists, therefore, have to support this growing interest by providing more appropriate, recent, and relevant technologies to supportsustainablelivestockproductionsystem to produce more animal protein food.

On behalf of AINI International Seminar Committee and all associates, we wish all of the participants having a great achievement of success and fulfill the expectation as well as enjoying the interaction with all scientists’ participants the Seminar.

High appreciation we may acknowledge to all of sectors, especially for Her excellency Rector of Sam Ratulangi University, who have concerned to facilitate the Seminar and Congress site host. Special thanks to the Steering Committee, Scientific Committee, Reviewers and Editorial Boards for their great contribution to make the Seminar and Congress successfully organized.

To you, you’re Excellency, invited guests and delegates, thank you for choosing to cometo this Seminar and Congress and to Manado, Indonesia. We hope the arrangements we have put in place meet with your requirements. We wish you fruitful deliberations and an intellectually and socially rewarding stay in Manado.

We are looking forward to meeting you all in the future congress to continue.

***Terimakasih (Thank you)***

Chairman of the 4<sup>th</sup> AINI International Seminar

Prof. Dr. Ir. BernatTulung, DEA

## KEYNOTE SPEAKERS



**Prof. Dr. Ir. Muladno, MSA**

*Director General of Livestock and Animal Health,  
Ministries of Agriculture of the Republic Indonesia*

Professor Muladno was born in Kediri, East Java on 24 August 1961. He was educated for undergraduate education at Faculty of Animal Husbandry, Gadjah Mada University. His master of science in University of New England, Armidale, Australia in the area animal breeding and genetics. He completed his Ph. D at University of Sydney, Australia in molecular genetics. He pursued his post – doctoral at science and technology agency of Japan at National Institute of Animal Industry, Tsukuba Japan. Then from society for agricultural, forestry and fisheries (STAFF) Institute, Tsukuba, Japan and from Japan Society for Promotion of Science (JSPS) at Nagoya University, Japan and from Indonesian-Australia Programme of specialized training on Intellectual Property Rights at University of Technology, Sydney, Australia.



**Prof. Abdul Razak Bin Alimon, Ph.D**

*Professor, Putra University, Malaysia*

Professor Alimon was born on January 25, 1949. He was educated for his bachelor of science in the area of nutrition and physiology, postgraduate diploma of science and master of science in agriculture at University of New England, Australia. He completed his Ph. D at University of Reading in area of animal nutrition.



**Prof. Cheol-Heui Yun, PhD**

*Professor, Seoul National University, Republic of Korea*

Professor Cheol-Heui YUN grew up in Gwang-ju, a southwest of Republic of Korea. He was educated at the Chon am National University for B.Sc. and the Seoul National University for his M.Sc. in the area of Animal Nutrition. Professor Yun completed his Ph.D. at the University of Saskatchewan, Canada in the area of immune modulation and mucosal immunology. Then, he pursued his professional career at leading research institutes in different region of the world including International Vaccine Institute (IVI, Korea), United States Department of Agriculture (USDA, USA), National Institutes of Health (NIH, USA) and Gothenburg University (Sweden) where he undertook research related to vaccinology, infection biology and cellular immunity. Currently, he serves as editor of a number of societies including World Journal of Immunology, Frontiers in Molecular Innate Immunity, Journal of Biomaterials and Tissue Engineering, Scientific World Journal, Journal of Microbiology, and Science Editing. He was selected and serves as a vice Editor-in-Chief at Asian-Australasian Journal of Animal Sciences. Currently, he is the president of Korean Dendritic Cell Academic Society. Recently, his interest has focused on the action mechanism of vaccine and vaccine adjuvants against a various (mucosal) diseases in mouse as a model system and ultimately domestic animals.





**Dr. Ir. Osfar Sjojfan, MSc**

*Faculty of Animal Husbandry, Brawijaya University, Malang, Indonesia*

Dr. Osfar was educated for B.Sc in Animal Husbandry at Padjajaran University and M.Sc in Poultry Feed at Wageningen Agricultural University, The Netherlands. He pursued his doctoral in Animal Science at University of Padjajaran, Bandung. His interest in Animal Nutrition.



**Prof. Dr. Ir. David Arnold Kaligis, DEA**

*Professor, Faculty of Animal Husbandry, Sam Ratulangi University, Manado, Indonesia*

Professor Kaligis was born in Semarang on December 9, 1948. He was educated at Faculty of Animal Husbandry, Sam Ratulangi University (Undergraduate), Universite Science et Technique du Languedoc Montpellier, France for his master and doctor in agronomi option zootechnique. His interest in forages sciences.



**Felipe Sanchez Fernandez**

*Trouw Nutrition Application and Solution Center  
Poultry Specialist and Technology Transfer*

Veterinarian bachelor marketing and sales management master degree. More than 20 years working in poultry production as Poultry Product Manager, in Cargill Animal Nutrition and Nutreco compound feed business, with direct responsibilities on poultry nutrition, technical consultancy services and business development manager. In 2012, he was appointed to Trouw Nutrition Application and Solution Centre when he lead R and D projects and transfer innovations and technology to Nutreco operative companies.

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