LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : PROSIDING

Judul Karya Ilmiah	:	Identification of Genetic on Blood Serum Protein of Prolific Ewes		
Jumlah Penulis	:	7 orang		
Status Pengusul	:	Penulis utama		
Identitas Prosiding	:	a. Judul Prosiding	:	IOP Conference Series: Earth and Environmental Science. International Ruminant Seminar: "Eco-friendly livestock production for sustainable agriculture" Vol. 119(012031)2018
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		e. Alamat Repository/Web	:	https://iopscience.iop.org/article/10.1088/1755-1315/119/1/012031
		Alamat Artikel	:	http://iopscience.iop.org/article/10.1088/1755-1315/119/1/012031/pdf
		f. Terindeks di (jika ada)	:	SCOPUS

Kategori Publikasi Makalah (beri ✓pada kategori yang tepat) :
☐ *Prosiding* Forum Ilmiah Internasional
☑ *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi prosiding (10%)	1.5	2.5	2.0
b. Ruang lingkup dan kedalaman pembahasan (30%)	3.0	6.0	4.5
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	3.5	6.5	5.0
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	4.5	7	5.75
Total = (100%)	**12.5**	**22**	**17.25**
Nilai Pengusul = (60% x 17.25) = 10.35			

Semarang,

Reviewer 2

Prof. Dr. Ir. Vitus Dwi Yunianto BI, MS, M.Sc
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Reviewer 1

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C16

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : PROSIDING

Judul karya ilmiah (paper)	:	Identification of Genetic on Blood Serum Protein of Prolific Ewes
Jumlah Penulis	:	7 orang
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Identitas Makalah	:	a. Judul Prosiding : IOP Conference Series: Earth and Environmental Science. International Ruminant Seminar: "Eco-friendly livestock production for sustainable agriculture" b. ISBN/ISSN : Vol. 119 (012031) 2018 c. Tahun Terbit, Tempat Pelaksanaan : 1 Maret 2018 d. Penerbit/organiser : IOP Science e. Alamat repository PT/web prosiding : http://iopscience.iop.org/issue/1755-1315/119/1 f. Terindeks di SCOPUS
Kategori Publikasi Makalah (beri ✓pada kategori yang tepat)	:	☑ *Prosiding* Forum Ilmiah Internasional ☐ *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional ☑	Nasional ☐	
a. Kelengkapan unsur isi prosiding (10%)	1.5		1,5
b. Ruang lingkup dan kedalaman pembahasan (30%)	4.5		3.0
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	4.5		3,5
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	4.5		4.5
Total = (100%)	15.0		12.5
Nilai Pengusul =			7.5

Catatan Penilaian paper oleh Reviewer :

- Prosiding terindeks Scopus
- pembahasan cukup komprehensif dengan mustaka yang memadai
- Metode sederhana tetapi standar.

Semarang,
Reviewer 1

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C16

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KARYA ILMIAH : PROSIDING

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Kategori Publikasi Makalah (beri ✓pada kategori yang tepat) : ☑ *Prosiding* Forum Ilmiah Internasional
☐ *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding: Internasional ☑	Nilai Maksimal Prosiding: Nasional ☐	Nilai Akhir Yang Diperoleh
a. Kelengkapan unsur isi prosiding (10%)	2.5		2.5
b. Ruang lingkup dan kedalaman pembahasan (30%)	7.5		6
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	7.5		6.5
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	7.5		7
Total = (100%)	25		22
Nilai Pengusul =	60% x 22 = 13.2		

Catatan Penilaian paper oleh Reviewer :

[illegible handwritten reviewer notes]

Semarang, 6 September 2018

Reviewer 2

Prof. Dr. Ir. Vitus Dwi Yunianto, MS, MSc

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IOP Conference Series: Earth and Environmental Science
Volume 119, Issue 1, 1 March 2018, Article number 012031
1st International Ruminant Seminar: Eco-Friendly Livestock Production for Sustainable Agriculture, IRS 2017; Diponegoro UniversitySemarang Central Java; Indonesia; 24 October 2017 through 24 October 2017; Code 135132

Identification of Genetic on Blood Serum Protein of Prolific Ewes

(Conference Paper) (Open Access)

Sutiyono, Ondho, Y.S., Setiatin, E.T., Sutopo, S., Laily, A.N., Prasetyowati, D.E., Noviani, F.

Faculty Animal and Agricultural Sciences, Diponegoro University, Semarang, Indonesia

Abstract

View references (20)

The aim of the research was to identify the genetic specification of blood plasma protein in ewes that are prolific . The material of study of local sheep in Bawen and Jambu Sub-district of Semarang Regency is 132 which is determined by purposive sampling that have been give lambing three times. Ewes were divided into three groups that always has a single child (L1), ever had twins (L2) and twins more than two (LM2). Blood sampling was performed using dispossible syringe in jugular vein as much as 5 ml per ewe . Blood plasma was analyzed by Polyacrylamide Gel Electrophoresis-Thin Layer (PAGETLE) method in Biochemistry Laboratory of Veterinary Faculty of Gadjah Mada University. Data analysis is using descriptive statistics and the laws of equilibrium Hardy-Weberg. The research parameters were comparison type of ewes and frequency genetic of protein of blood serum . The results showed that the parent comparisons of L1, L2 and LM2 were 66 (50.00%), 49 (37.12%) and 17 (12.88%), respectively. The frequency genes haven a high propensity to relationship of prolificacy nature parent are Pal^2, Alb^B, CP^F, TF^B, PTF^S and Aml^B on pointes, 67.65, 55.88, 91.17, 70.59, 79.41 and 91.18%. Conclusion the mostly LM2 ewes have genotypes Pal^1Pal^2, Alb^BAlb^C, Cp^FCp^F, Tf^ATf^B, Ptf^SPtf^S and Aml^BAml^B whit frequency are 52.94%, 52.94%, 88.24, 47.06, 64.71 and 88.24% respectively.

SciVal Topic Prominence

Topic: Oocytes | Granulosa Cells | cumulus expansion

Prominence percentile: 94.060

Indexed keywords

Engineering controlled terms: Agriculture | Body fluids | Electrophoresis | Environmental protection | Proteins | Sustainable development

Engineering uncontrolled terms: Blood plasma | Blood sampling | Blood serum | Descriptive statistics | Jugular veins | Polyacrylamide gel electrophoresis | Thin layers

Engineering main heading: Blood

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View at Publisher

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Preface

Faculty of Animal and Agricultural Sciences, Diponegoro University has actively participated in disseminating of research outcome from academicians, researcher as well as livestock producers. In ruminant science scope, following the success of the first, second and the third national ruminant seminar, it has been held successfully the First International Ruminant Seminar (IRS) in Semarang Central Java, Indonesia at 24 October 2017.

The primary objective of IRS 2017 were to provide a perspective and insight into environmentally friendly livestock production for sustainable agriculture, to discuss the solutions on mitigating the livestock's contributions to climate change and to provide a venue in order to exchange information and ideas on eco-friendly livestock production system for academicians, researchers, administrators, livestock producers as well as related stakeholders and to share their experiences and develop collaborations and to enhance development of livestock production and environmental friendly concerns in their respective countries. We also welcomed our colleagues from the related fields to contribute to the above objectives. More than 70 papers have been presented and discussed during the seminar by either keynote speakers or participants from different countries. The papers cover ruminant feed and technology, ruminant genetic and breeding, ruminant physiology, health and production, environmental issues, post-harvest technology, social and economic issues and other issues related to the theme of conference.

The selected papers of this seminar are published in this proceeding. It is expected that this proceeding would provide valuable information and contribution for readers in improving the productivity and sustainability of ruminant production.

To follow up the seminar and for regular and continuous discussion on the related aspects of ruminant sustainable production, it is the committee's great honours and pleasures to invite again the participants (academics, scientist, practitioners, as well as industries and related stakeholder) to attend and actively support for the next success of the next IRS seminar.

Semarang, December 2017

Editors

Committee
International Ruminant Seminar 2017

Steering Committee:

- Prof. Dr. Ir. Mukh Arifin, M.Sc
- Prof. Ir. Agung Purnomoadi, M.Sc., Ph.D
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- Prof. Dr. Joelal Achmadi (Faculty of Animal and Agricultural Sciences, Diponegoro University, Semarang, Indonesia)

International Ruminant Seminar 2017

"Eco-friendly livestock production for sustainable agriculture"

Link
Diponegoro University

Faculty of Animal and Agricultural Sciences

About SEMARANG

Hotel in Semarang

Important Dates

Abstract:

Should be submitted at latest on 30th June 2017

!!! Abstract submission is extended to 30th August 2017

!!! Abstract submission is extended to 30th September 2017

Full Paper:

Should be submitted at latest on 30th August 2017

Registration deadline:

30th June 2017

!!! Registration is extended to 30th August 2017

!!! Registration is extended to 30th September 2017

Onsite registration:

24th October 2017

Payment of seminar should be transferred to Mandiri KCP UNDIP Semarang

Name Account : Bendahara Penerimaan Undip, No. Account 136-000-559-9-045, Swift code : BMRIIDJA854

Abstract, full paper, registration form and payment slip should be sent to semruminter2017@yahoo.com

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http://seminar.fpp.undip.ac.id/International-Ruminant-Seminar

Faculty of Animal and Agricultural Sciences
Diponegoro University
Kampus drh. R. SoejonoKoesoemowardojo
Tembalang-Semarang post code 50275
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Theme

"Eco-friendly livestock production for sustainable agriculture"

Background

Livestock production is one of the largest contributors to climate change. In addition to greenhouse gases production, livestock sector increase deforestation due to expansion of pasture land and arable land used to grow feed crops. Mitigating the livestock sector's contributions to climate change is crucial for sustainable agriculture. Technical solution such as reformulation of ruminant diets to reduce enteric fermentation and some methane emissions can be undertaken. Other solutions may be proposed by researchers to support the sustainable livestock farming, from the aspect of feed, genetics, physiology, socio-economic, environment, etc.

Objectives

1. To provide a perspective and insight into environmentally friendly livestock production for sustainable agriculture.
2. To discuss the solutions on mitigatingthe livestock'scontributions to climate change.
3. To provide a forum in order to exchange information and ideas on eco-friendly livestock production system.

Language

English

Benefits

1. Accepted manuscript will be published in the proceeding **indexed by Scopus**
2. Selected paper can be published in Journal of the Indonesian Tropical Animal Agriculture (indexed by Scopus and accredited by Directorate General of Strengthening for Reserch and Development, Ministry of Research, Technology and Higher Education)

Key Note Speaker

1. Prof. Takuro Oikawa (Japan) - Animal genetic
2. Dr. Renato S.A. Vega (The Philippines) - Animal physiology
3. Prof. Agung Purnomoadi (Indonesia) - Ruminant methane emission
4. Prof. Sang Jip Ohh (South Korea) - Feed Biotechnology

Participants

- Researchers
- Academics
- Educators
- Practitioners
- Government officers
- Entrepreneurs

Seminar Topic

- Ruminant feed and technology
- Ruminant genetic and breeding
- Ruminant physiology, health and production
- Environmental issues
- Post harvest technology
- Social and economic issues
- Other issues related to the theme of conference

Registration Fee

- Local participant - speaker: IDR 750,000
- International participant - speaker : USD 150
- Student: IDR 500,000

Table of Contents

Biotechnological Approaches on Ruminant Feed Nutrition - With emphasis on Indonesian Situation -

S. J. OHH[1*]

[1]Kangwon National University, Chuncheon, Korea

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1. Introduction to feed biotechnology

Feed biotechnology can be defined as 'biotechnology onto the area of feed nutritional manipulation'. Recently the feed biotechnology has emerged as *de novo* tools for improving the nutritive value of feed resources, with more emphasis on poor quality ingredients, and modulation of gut microbiota for better feed nutritional metabolism. Although many biotechnological tools are available now, most of feed biotechnological tools in feed biotechnology are more or less, associated with microorganism and their fermentation products. Matter of fact, many live microorganisms and their fermentation products like enzyme, amino acids, peptides, organic acids, vitamins, bioplexes, and even antibiotics have been developed and employed for the feed nutritional improvement. In addition, use of various genetically modified organisms(GMO), mostly grains and oilseeds became part of feed biotechnological application. However, development of new GMO itself is technically driven by biotechnological scientist, which means there is not much room available for feed nutritional application of those biotechnological GMO products. Therefore, this article mainly discussed about the modulation of rumen microbiota and the improvement of feed nutritional values by biotechnological products.

2. Biotechnological application for the better rumen development

2.1. Factors affecting rumen development

Well-developed rumen is pivotal for the better feed nutritional metabolism throughout the life of ruminant animal [1]. One of the primarily important factor for the good rumen development is known as the appropriate intake of good quality calf starter [2]. Ruminant animal with well-developed rumen could utilize even poorer quality local feed resources and relatively perform better than less-developed animal. However, it is physiologically difficult for calf to voluntarily increase the intake since consumption of the calf starter is the first and huge challenge for calf itself. Many approaches have developed and applied though there still no simple and easy-to-apply techniques are available especially for the small holder farms since many factors affect the feed intake. Factors affecting the intake of calf starter feed are calf starter formulation and physical form, type and addition level of hay, grain and protein sources, physical processing and fermentation method, and feed supplements [3]. Thereby, the best possible approaches would be the combination of both physical processing of feed and use of suitable biotechnological products.

2.2. Modulation of physical forms

First of all, one of the simple and straight forward tool is the modulation of physical form. The physical form of calf starter feed was known to affect palatability and intake [4]. Calves do not prefer either finely-ground feed and too much hard pellet. Instead, calves usually prefer 'coarse and

Oral	**0014_IRS**	Quality and Quantity of Sorghum Hydroponic Fodder from Different Varieties and Harvest Time **R. Chrisdiana**
Oral	**0015_IRS**	Development of Botanical Composition In Maribaya Pasture, Brebes, Central Java **N. Umami, N. Ngadiyono, Panjono, N. Agus F, M. Shirothul H, I.G.S. Budisatria**
Oral	**0016_IRS**	In Vitro Ruminal Degradability of Soybean Meal Protein Protected with Natural Tannin **B.W.H.E Prasetiyono, A. Subrata, B.I.M. Tampoebolon, E. Pangestu, Surono and Widiyanto**
Oral	**0017_IRS**	In Vitro Study of Noni Juice Extract Waste (*Morinda citrifolia* L.) and Pineapple Industrial Wastes (*Ananas comosus* L. Merr) as Energy Supplement in Dairy Goat Ration **D. Evvyernie, A. S. Tjakradidjaja, I. G. Permana, T. Toharmat and A. Insani**
Oral	**0018_IRS**	The Effect of Organic Phosphorus and Nitrogen Enriched Manure on Nutritive Value Of Sweet Corn Stover **D.R. Lukiwati, R.I. Pujaningsih, R. Murwani**
Oral	**0019_IRS**	Observation of Muntingia Calabura's Leaf Extract as Feed Additive for Livestock Diet **R.I. Pujaningsih, B. Sulistiyanto and S. Sumarsih**
Oral	**0020_IRS**	Evaluation of Feed for Thin-Tailed Sheep Fattening with Supplemented Protected and Unprotected Aldehide **J. Riyanto and Sudibya**
Oral	**0021_IRS**	Isolation of Rhizobium Bacteria from Forage Legumes for the Development of Ruminant Feed **E. Fuskhah, E. D. Purbajanti, S. Anwar**
Oral	**0022_IRS**	Commercial Cuts of Carcass of Thin-Tailed Lambs and Sheep Fed Complete Feed **N. Nurbaeti, C.M.S. Lestari and E. Purbowati**
Oral	**0023_IRS**	The Effects of Manure at Saline Soil on Growth, Dry Matter Production and Crude Protein of *Sesbania grandiflora* **F. Kusmiyati, E. D. Purbajanti and Surahmanto**
Oral	**0024_IRS**	Feeding of Total Mixed Ration on the Productivity of Friesian Holstein Cross-Grade Cattle **Sunarso, M. Christiyanto and L.K. Nuswantara**
Oral	**0025_IRS**	Effect of Chicken Bone Meal as Phosphorus Supplement on Blood Metabolites in Fattening Lambs **A. Pujiastuti and A. Muktiani**
Oral	**0026_IRS**	Analysis of Non-Genetic Factors Influencing Reproductive Traits of Japanese Black Heifer **A. Setiaji and T. Oikawa**
Oral	**0027_IRS**	Hematologic Profile and Semen Quality of Male Timor Deer (*Rusa timorensis*) at Various Hierarchies **D. Samsudewa, S. S. Capitan, C. C. Sevilla, R. S. A. Vega and P. P. Ocampo**

Analysis of Non-Genetic Factors Influencing Reproductive Traits of Japanese Black Heifer

A. Setiaji[1,2,3*], and T. Oikawa[1,2]

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Abstract

This study aimed was to identify non-genetic factors strongly associated with reproductive traits on Japanese Black heifer. Artificial insemination and calving records were analyzed to investigate non-genetic effect on reproductive performances. A total of 2220 records of heifer raised between 2005 and 2016 were utilized in this study. Studied traits were first service non return rate to 56 days (NRR), first service pregnancy rate (FPR), days from first to successful insemination (FSI), number of services per conception (NSC), age at first calving (AFC), and gestation length (GL). Test of significance for effects in the statistical model was performed using GLM procedure of SAS 9.3. The yearling trend was plotted on the adjusted mean of parameters, by the least square mean procedure. Means of NRR, FPR, FSI, NSC, AFC and GL were 72%, 53%, 52.71 days, 1.76, 760.71 days and 288.26 days, respectively. The effect of farm was significant (P<0.001) for FSI, AFC, and GL. The effects of age of heifer at first insemination was significant (P<0.001) for AFC. Month of insemination and sex of calf were significant (P<0.001) for GL. Compared with average value of reproductive traits, NSC and GL were generally within standard values for Japanese Black cattle, while AFC was slightly earlier. The result indicated that different management of farms strongly influenced reproductive traits of Japanese Black heifer.

1. Introduction

Production traits, especially carcass characteristics have been a primary object in Japanese Black breeding program. In recent decades, incorporating reproductive performances in breeding plan is a regular practice because of their influence on herd productivity [1]. Reproductive traits of heifers are traits measured relatively early in the life. Therefore, it can be effective to include it in breeding evaluation programs. Recently, [2] suggested that reproductive traits for heifer should be evaluated separately from reproductive traits for cows.

Non-genetic effects are factors contributing largely to reproductive performance of not only on cows but also on heifers. Most of the reproductive traits were significantly affected by environment effects. Curent studies have been reported in Simental cows [3], dairy cows [4;5], in Japanese Black cows reported recently by [6]. Hence, there should be sufficient improvement in these traits through better management. Environmental factors can be classified into factors with explicit effects, such as age, herd, year, season, parity and factors with embedded effects such as infectious diseases, endocrine fluctuation etc.[3]. Studies on reproductive performance and factors that affecting reproductive

Hematologic Profile and Semen Quality of Male Timor Deer (*Rusa timorensis*) at Various Hierarchies

D. Samsudewa[1]*, S. S. Capitan[2], C. C. Sevilla[2], R.S.A. Vega[2] and P. P. Ocampo[3]

[1]Faculty of Animal and Agricultural Sciences, Diponegoro University, Semarang, Central Java, Indonesia
[2] Institute of Animal Science, College of Agriculture & Food Science, University of The Philippines Los Banos, Los Banos, Laguna, Philippines
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Abstract

The aim of this research was to observe hematologic profile i.e. erythrocyte count, hemoglobin and hematocrit and semen quality, i.e. semen volume, sperm motility and sperm abnormality of α-male, β-male and subordinate male Timor deer raised under captivity. Twelve males (51 ± 6 months old; 68.29 ± 8.41kg body weight) at similar antler stages were use in this study. Before and after 43 days of establishment of dominance hierarchy blood were sampled after sedation for erythrocyte count, hemoglobin (mg/dL), and hematocrit (%). Likewise, semen was collected using electroejaculator and were analyzed for semen volume (ml), sperm motility (%) and sperm abnormality (%) to compare male deer at various heirarchies. Wilcoxon signed ranks test and Kruskal-Wallis H test of non-parametric analysis was done. Significant difference was tested with Mann-Whitney U test. The results showed that highest count of erythrocyte shown on α and β-male (1.60 million per µL). The highest increase in hematocrit was observed in β-male (5%) and then followed by S2-male (4%). S2-male had the highest increase in hemoglobin (0.13 g/dL). The highest increase in semen volume was observed in α –male (0.75 ml). Social stress affected negatively the sperm motility and abnormality ($P<0.05$). The highest decrease was observed in S2-male.

1. Introduction

The Timor deer (*Cervus timorensis* Blainville) is one of the medium size deer in Indonesia with 56.80 ±11.63 kg male body weight and 80.04 ±5.93 cm shoulder height [1]. Timor deer are currently being reared in captivity in Indonesia. But, increasing population of Timor deer in Indonesian captivity is still low. The captive farm in Kudus regency reported increasing population 0.5 head per year [1]. This research suggest that the productivity of Timor deer in captivity can be improved if some key aspects of management such as feeding, mating, aggressive male behavior and maternal care are addressed.

Aggressive male behavior was common in captive farm of Timor deer, to form dominance hierarchy. Aggressive male behavior during establishment of dominance hierarchy causes unnecessary stress i.e. partitioning nutrients towards fighting and wound healing. This social stress may lead to poor health of Timor deer and reproductive performance. Social stress has adverse effects on the reproduction system and health of both males and females [2]. Understanding and managing social stress of Timor deer will help establihsh the best management system esspecially in improving reproduction efficiency.

Oral	**0028_IRS**	Estimation of 305 Day Milk Yield from Cumulative Monthly and Bimonthly Test Day Records in Indonesian Holstein Cattle **A.P. Rahayu, E. Kurnianto, A. Purnomoadi and T. Hartatik**
Oral	**0029_IRS**	Influence of Meiotic Stages on Developmental Competence of Goat Oocyte after Vitrification **S. Wahyuningsih and M.N. Ihsan**
Oral	**0030_IRS**	Identification of Pit-1 Gen Using PCR-RFLP of Padjadjaran Sheep and Evaluate of Growth Rate **S. B. K. Prajoga, L. Andriani and H. Subhanadiana**
Oral	**0031_IRS**	Identification of Genetic on Blood Serum Protein of Prolific Ewes **Sutiyono, Y.S. Ondho, E.T. Setiatin, Sutopo, A.N. Laily, D.E. Prasetyowati and F. Noviani**
Oral	**0032_IRS**	Chromosome Characteristic of Peranakan Etawa (PE) Goat (*Capra hircus* Linn.) as Indonesian Local Breed **A.R.I. Putri, G. Ciptadi and A. P. Warih**
Oral	**0033_IRS**	Effect of Age and Bulls on Fresh Semen Quality and Frozen Semen Production of Holstein Bulls in Indonesia **A. Argiris, Y.S. Ondho, S.I. Santoso and E. Kurnianto**
Oral	**0034_IRS**	Semen Quality of Post-Thawed Local Ram in Tris-Egg Yolk Extender with Different Glutathione Level **N. Solihati, S.D. Rasad, R. Setiawan, E.N. Foziah and E.T. Wigiyanti**
Oral	**0035_IRS**	Effect of Fermented Cocoa Pod Husk Level in Concentrate on Etawah Grade Semen Quality **F.F. Munier**
Oral	**0036_IRS**	The Different Calcium^{+2} Intensity Profile and Quality Of Oocyte and Goat Sperms after Cryopreservation **G. Ciptadi, S. Rahayu, Fatchiyah, S. Wahyuningsih, A. Budiarto, M. Nasich and M.N. Ihsan**
Oral	**0037_IRS**	The Productivity and Natural Increase of Swamp Buffalo in Malang District **A. Budiarto and G. Ciptadi**
Oral	**0038_IRS**	The Utilization Sago Waste as Cattle Feed **B.M.W. Tiro, P.A. Beding and Y. Baliadi**
Oral	**0039_IRS**	The Effect of Different Location of Muscle on Quality of Frozen Simmental Ongole Grade Bull Meat **D. Triasih, D. Krisdiani, J. Riyanto, W. Pratitis, S.D. Widyawati**
Oral	**0040_IRS**	Milk Production, Physiological Condition and Performance of Etawa Grade Goats Feed with Ration Supplemented by Mangosteen Peel Flour **Dzarnisa, D. Rachmadi, A. Azhar, F. Riza and A.. Hidayati**

Identification of Genetic on Blood Serum Protein of Prolific Ewes

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Abstract

The aim of the research was to identify the genetic specification of blood plasma protein in ewes that are prolific. The material of study of local sheep in Bawen and Jambu Sub-district of Semarang Regency is 132 which is determined by purposive sampling that have been give lambing three times. Ewes were divided into three groups that always has a single child (L1), ever had twins (L2) and twins more than two (LM2). Blood sampling was performed using dispossible syringe in jugular vein as much as 5 ml per ewe. Blood plasma was analyzed by Polyacrylamide Gel Electrophoresis-Thin Layer (PAGETLE) method in Biochemistry Laboratory of Veterinary Faculty of Gadjah Mada University. Data analysis is using descriptive statistics and the laws of equilibrium Hardy-Weberg. The research parameters were comparison type of ewes and frequency genetic of protein of blood serum. The results showed that the parent comparisons of L1, L2 and LM2 were 66 (50.00%), 49 (37.12%) and 17 (12.88%), respectively. The frequency genes haven a high propensity to relationship of prolificacy nature parent are Pal^2, Alb^B , CP^F, TF^B, PTF^S and Aml^B on pointes, 67.65, 55.88, 91.17, 70.59, 79.41 and 91.18%. Conclusion the mostly LM2 ewes have genotypes Pal^1Pal^2, Alb^BAlb^C, Cp^FCp^F, Tf^ATf^B, Ptf^SPtf^S and Aml^BAml^B whit frequency are 52.94%, 52.94%, 88.24, 47.06, 64.71 and 88.24% respectively.

1. Introduction

The right program to increasing the population and production of sheep in the future is to use prolific ewes parent. The use of prolific ewe parent will both speed up and simplify the production of prolific sheep breeds, as they are more effective and efficient. Prolific ewes are female sheep that have the ability to produce more than two sheep for each birth. The ability to produce lambs over two every birth is the fecundity gene expression of every ewes. According to [1] prolific sheep has the homozygote genotype of the dominant fecundity gene (FF), while those with twin and singular abilities are the genotypes of heterozygote (Ff) and homozygote recessive (ff). The prolificacy Indonesia of sheep occurs due to the mutation of genes B in the indigenous Java sheep [2]. The strategic program breeding was separated between of a group of sheep prolific and non-prolific [3]. The group of productive ewes mated with males of the productive offspring to get more types of prolific [4]. The selection of prolificacy trait in cattle showed a greater effect on the performance of litter size [5]. The problem in the selection of fertile ewe is the number very few and not all female have fecundity genes that can indicate to the litter size. The main factor influencing the nature of sheep prolificacy is genetic of fecundity, but for better performance in the system, it is necessary to consider the supporting factors. [6]. [7] stated that the appearance of fertile ewes can be seen from the maskers associated with the ease of pregnancy and birth process. The prolific ewes should be selected that have the capacity of the uterus to gestation twins, in order to have a survival after birth. [8]

Oral	**0041_IRS**	The Effect of the Gambir (*Uncaria gambir* Hunt.) Roxb.) Leaves Waste and White Turmeric (*Curcuma zedoaria*) for the Productivity, Antioxidant Content and Mastitis Condition of the Fries Holland Dairy Cows **E. Nurdin and Fitrimawati**
Oral	**0042_IRS**	Carcass Production of Cattle Slaughtered at Salatiga City Slaughter House, Salatiga, Central Java, Indonesia **E. Purbowati, C.M.S. Lestari, M.J. Ma'ruf and S. Sutaryo**
Oral	**0043_IRS**	Bali Cattle Carcass Characteristic of Different Butt Shape Condition **H. Hafid, Nuraini, Inderawati and W. Kurniawan**
Oral	**0044_IRS**	Effects of Feed Supplementation in Friesien Holstein Crossbreed Cows at the First Quarter on the Production and Quality of Milk **Suharyono, S.N.W. Hardani, P.D. Sitoresmi and Adiarto**
Oral	**0045_IRS**	The Concentrations of Rumen Fluid Volatile Fatty Acids and Ammonia, and Rumen Microbial Protein Production in Sheep Given Feed During the Day and Night Time **D.A.K.W. Gumilar, E. Rianto and M. Arifin**
Oral	**0046_IRS**	The Effect of Antioxidant Activity of Liquid Smoke in Feed Supplement Block on Meat Properties of Muscle *Longissimus dorsi* **E. Abustam, M. I. Said and M. Yusuf**
Oral	**0047_IRS**	The Productivity of Male Thin-Tailed Lambs and Sheep Fed Complete Feed **M.S. Aluns and N. Luthfi**
Oral	**0048_IRS**	Body Composition of Lambs and Rams Fed Complete Feed **F. Rahmawati and E. Rianto**
Oral	**0049_IRS**	Profile of Rumen Fermentation and Blood Urea Nitrogen Concentration of Kacang Goat Fed Total Mixed Ration vs. Roughage **R. Adiwinarti, Kustantinah, I.G.S. Budisatria, Rusman, E. Indarto**
Oral	**0050_IRS**	Fermentation of Anaerobic Cow Waste as Bio-Slurry Organic Fertilizer and Nitrogen Chemical Fertilizer on Soybean **Yafizham and Sutarno**
Oral	**0051_IRS**	Milk Production of Ettawah Grade Goat Fed Diet Containing Different Protein and Energy Supplemented with Organic Mineral and Grapes Seed Oil **A. Muktiani, E. Kusumanti and D.W. Harjanti**
Oral	**0052_IRS**	The Effect Of Concentrate Supplementation on Creatinine Excretion In Thin Tailed Lambs And Sheep **N.A. Purnami, A. Prima and E. Rianto**
Oral	**0053_IRS**	Fermentation Kinetic of Maize Straw-Gliricidia Feed Mixture Supplemented by Fermentable Carbohydrate Measured by In Vitro Gas Production **D. Yulistiani and Nurhayati**

Oral	**0054_IRS**	Texture Profile and Color Determination on Local and Imported Beef Available in Semarang City, Indonesia **M. Arifin, A.N. Al-Baarri, B.E. Setiani, R.F. Siregar**
Oral	**0055_IRS**	Methane Respiration Emission, Feces Production and Feces Quality of Sheep Fed with Different Level of Energy and Protein Content **S. Sutaryo, A. Prima and C.B. Listianto**
Oral	**0056_IRS**	The Optimation of Crude Fiber Content of Diet for Fattening Madura Beef Cattle to Achieve Good A:P Ratio and Low Methane Production **N. Luthfi, V. Restitrisnani and M. Umar**
Oral	**0057_IRS**	The Effect of Crude Protein Content on Meat and Fat Production in Sheep **S. Mawati, Soedarsono, Sunarso and V. Restitrisnani**
Oral	**0058_IRS**	Study of Local Herb Potency as Rumen Modifier: The Effect of Red Ginger (*Zingiber officinale Var.Rubrum*) on Parameters of Ruminal Fermentation In Vitro **A. Kurniawati, Widodo, Wayan T. Artama and L. M. Yusiati**
Oral	**0059_IRS**	The Function of Credit Scheme to Improve Family Income among Beef Cattle Farmers in Central Java Province **E. Prasetyo, T. Ekowati, W. Roessali, and S. Gayatri**
Oral	**0060_IRS**	Dairy Cows Productivity and Socio-economic Profile of Dairy Smallholder's Communities in Yogyakarta, Indonesia **B.P. Widyobroto, Rochijan, C. T. Noviandi and A. Astuti**
Oral	**0061_IRS**	Determinant of Household Business Scale of Moa Buffaloes at Moa Island, Southwest Maluku Regency **J. Lainsamputty, W. Roessali, S.I. Santosa, B.T. Eddy**
Oral	**0062_IRS**	Study of Goat Herdering System in Sawohan Village Buduran District Sidoarjo **M. Nasich, Suyadi, M. Dzikri**
Oral	**0063_IRS**	Determinants Affecting on Smallholder Madura Cattle Farming at Pamekasan Regency, East Java, Indonesia **H.D. Utami, A. Yakin and A.P. Seruni**
Oral	**0064_IRS**	Impact of Small Holder Dairy Farm on the Air Quality in Gunungpati District, Semarang Municipality **E. Widiastuti, Kustono, Adiarto, Nurliyani and S. Sugiharto**
Oral	**0065_IRS**	Risk Preference of Farmer Beef Cattle Smallholder in West Java **H. Arief and A. Fitriani**
Oral	**0066_IRS**	Identification of Social Capital on Beef Cattle Farmers Group **V.S. Lestari, S.N. Sirajuddin and A. Abdullah**
Oral	**0067_IRS**	Factors Causing Farmers Not to Fertment Rice Straw as Cattle Feed **S.N. Sirajuddin, I.M. Saleh, S. Syawal and Syamsinar**

Oral	**0068_IRS**	Mukhabarah as Sharia Financing Model in Beef Cattle Farm Enterprise **A. Asnawi, A.A. Amrawaty and Nirwana**