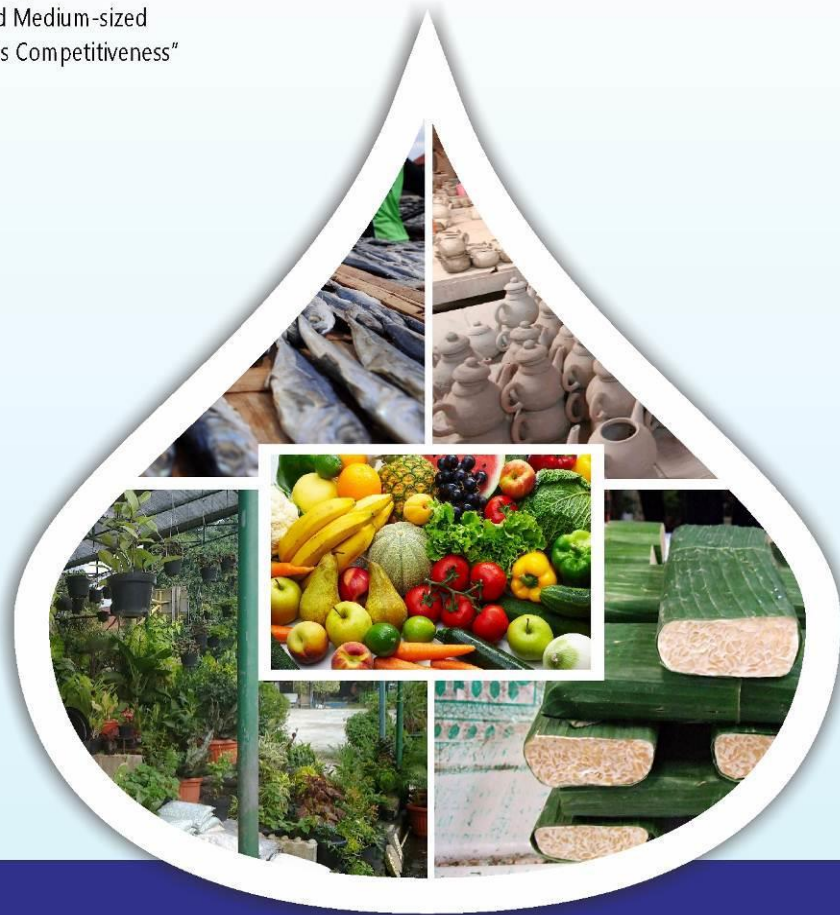




2016

"Small and Medium-sized  
Enterprises Competitiveness"

ISBN 978-602-7577-70-1



# PROCEEDING

## INTERNATIONAL CONFERENCE

Agribusiness Development for Human Welfare



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Yogyakarta

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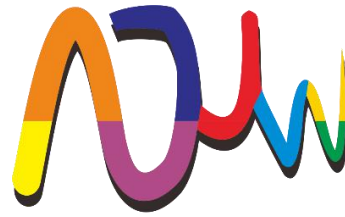
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AGRIBUSINESS  
DEVELOPMENT FOR  
HUMAN WELFARE

*“Small and Medium-sized  
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Agribusiness Development  
for Human Welfare

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## EDITOR TEAM

Siti Yusi Rusimah  
Achmad Fachruddin  
Rohandi Aziz  
Dara Rosalia

## ADDRESS

Agribusiness Department  
Agriculture Faculty  
Universitas Muhammadiyah Yogyakarta

Jl. Lingkar Selatan, Tamantirto, Kasihan, Bantul, Yogyakarta, 55183  
Phone. 0274-387656 (ext. 201) Fax. 0274-387646  
e-mail: adhw2016@umy.ac.id

## **EDITOR FOREWORD**

The economic integrations by ASEAN certainly have given a major influence on Small and Medium-sized Enterprises (SMEs). Beside economic integration in the form of free trade area (FTA) that has been going on since the early 2000s, economic integration in the form of ASEAN Economic Community (AEC) has been ongoing since the beginning of 2016. Through this integration, SMEs have opportunity to expand access to markets, technology, and capital. But at the same time SMEs are required to improve their competitiveness in order to survive in the market.

In order to explore ideas, concept, and innovations related to the competitiveness of SMEs, International Conference on Agribusiness Development for Human Welfare (ADHW 2016) was held in Yogyakarta on May 14, 2016. The conference organized by Department of Agribusiness Universitas Muhammadiyah Yogyakarta, in collaboration with Department of Agribusiness and Information System Universiti Putra Malaysia, Department of Agro-Industrial Technology Kasetsart University, Department of Agriculture Socio-Economics Universitas Gadjah Mada, Department of Agriculture Socio-Economics of Universitas Brawijaya, Indonesian Society of Agriculture Economics, Agribusiness Association of Indonesia. Hopefully proceedings of ADHW 2016 provide stimulus for increasing competitiveness of SMEs in ASEAN, especially in Indonesia.

Furthermore, we are grateful to Allah, the Sustainer of all word, who always makes it easy for our affairs. We would like to acknowledge with thanks to all the institution and individual who joined with resources and efforts in organizing the conference that resulted in the papers which are published in this proceeding. Special thanks to all authors and discussants who contributed with their intellectual capital and responded to our call papers. Thanks and acknowledgment are also due to all reviewers of the conference who helped in evaluating submitted papers; and to the members of the Organization Committee, who ensured smooth execution of the event.

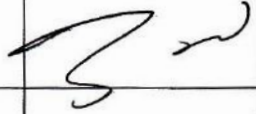
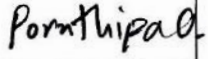


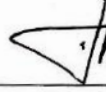

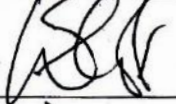
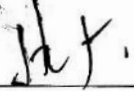
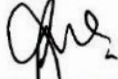

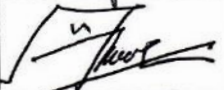
May 30, 2016

**Editor**

## LIST OF REVIEWERS

1. Prof. Dr. Mad Nasir Shamsudin (Universiti Putra Malaysia)
2. Prof. Dr. Zaenal Abidin Mohamed (Universiti Putra Malaysia)
3. Dr. Ismail Abd. Latif (Universiti Putra Malaysia)
4. Dr. Juwaidah Sharifudin (Universiti Putra Malaysia)
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6. Assist. Prof. Dr. Nitty Hirawaty K. (Universiti Putra Malaysia)
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8. Assist. Prof. Dr. Pornthipa Ongkunaruk (Kasetsart University)
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11. Prof. Dr. Ir. Irham, M.Sc. (Universitas Gadjah Mada)
12. Dr. Jamhari, SP. MP. (Universitas Gadjah Mada)
13. Dr. Jangkung HM, SP.M.Ec. (Universitas Gadjah Mada)
14. Subejo, SP, M.Sc., Ph.D. (Universitas Gadjah Mada)
15. Dr. Ir. Rini Dwiastuti, M.S. (Universitas Brawijaya)
16. Ir. Edi Dwi Cahyono, M.Sc., Ph.D. (Universitas Brawijaya)
17. Wisynu Ari Gutama, S.P., M.MA. (Universitas Brawijaya)
18. Hery Toiba, S.P., M.P., Ph.D. (Universitas Brawijaya)
19. Yuniar Khasanah, M.Sc. (Lembaga Ilmu Pengetahuan Indonesia)
20. Lusty Istiqamah, M.Biotech (Lembaga Ilmu Pengetahuan Indonesia)
21. Ir. M. Kismuntono (Lembaga Ilmu Pengetahuan Indonesia)
22. Dr. Ir. Sriyadi, MP. (Universitas Muhammadiyah Yogyakarta)
23. Dr. Ir. Widodo, MP. (Universitas Muhammadiyah Yogyakarta)
24. Dr. Ir. Indardi, M.Sc. (Universitas Muhammadiyah Yogyakarta)
25. Dr. Ir. Triwara BS, MP. (Universitas Muhammadiyah Yogyakarta)
26. Dr. Aris Slamet Widodo, SP. MSc. (Universitas Muhammadiyah Yogyakarta)

### ATTENDED REVIEWER

NO	NAME	INSTITUTION	SIGNATURE
1	Prof. Dr. Zaenal Abidin Mohamed	UPM	
2	Assistant. Prof. Dr. Pornthipa Ongkunaruk	Kasetsart University	
3	Prof. Dr. Ir. Irham, M.Sc	UGM	
4	Dr. Jangkung HM, SP. M.Ec	UGM	
5	Dr. Ir. Lestari Rahayu Waluyati, MP	UGM	
6	Ir.Edy Dwi Cahyono, M.Sc., PhD	UNIBRAW	
7	Wisnyu Ari Gutama, S.P, M.MA	UNIBRAW	
8	Hery Toiba, S.P.,M.P.,Ph.D	UNIBRAW	
9	Yuniar Khasanah, M.Sc	LIPI	
10	Lusty Istiqamah, M.Biotech	LIPI	
11	Ir. M. Kismuntono	LIPI	

## PREFACE

Assalaamualaikum, Warahmatullaahi., Wabarakaatuh.  
Dear Honorable Governor of Yogyakarta Special Province  
Dear respectable Prof. Dr. Zainal Abidin Mohamed  
Dear respectable Asist. Prof. Pornthipa Ongkunaruk  
Dear respectable Rector of UMY Prof. Dr. Bambang Cipto, MA.  
Dear all invited Guests, Speakers, and Participants of International seminar of ADHW 2016.

Alhamdulillah, all praise be to the Almighty God, so that we can be gathering here today at Muhammadiyah University of Yogyakarta in order to attend the Conference on Agribusiness Development for Human Welfare (ADHW) 2016.

Ladies and Gentlemen,

On behalf of the committee, I would like to say welcome to this International Conference on ADHW 2016 and thank you for attending our invitation.

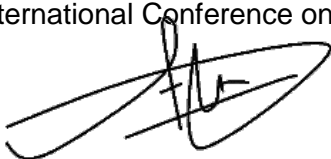
Especially, we are grateful to invited speakers, Prof. Zainal Abidin Mohamed and Asist. Prof. Pornthipa Ongkunaruk, for their willingness to share information and thoughts in this conference. As a bit report, that this conference has been attended by 85 speakers coming from five countries.

This conference entitled "Small and Medium-sized Enterprise Competitiveness". ASEAN Economic Community is the largest economic integration that is going to be implemented at the beginning of 2016 (December 31, 2015). Through this integration, SMEs will have opportunity to expand access to markets, technology, and capital. But at the same time SMEs are required to improve their competitiveness in order to survive in the market. We expect that this seminar is capable of producing thoughts building SMEs within ASEAN, especially Indonesia, to face the free trade.

This event can be done by support and efforts from all sides. Therefore, I would like to say thank you to all committee members having worked hard to conduct this event. We, as the organizer committee, do apologize when there is a shortage in conducting this event.

Wassalamualaikum, Warahmatullaahi., Wabarakaatuh.

Chairman  
International Conference on ADHW 2016



Dr. Aris Slamet Widodo, SP., MSc.

## **WORDS OF WELCOME**

Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, all praise be to Allah SWT, who has given us His blessings so that this International Seminar of Agribusiness Development for Human Welfare (ADHW) 2016 entitled "Small and Medium-sized Enterprises Competitiveness" can be conducted. This International Conference is held in cooperation among Agribusiness Study Program of Muhammadiyah University of Yogyakarta with Putra University of Malaysia (UPM), Kasetsart University (KU), Association of Indonesian Agricultural Economy (PERHEPI), and Agribusiness Association of Indonesia (AAI), Universitas Gadjah Mada (UGM) and Universitas Brawijaya (UB).

Countries of ASEAN members like Indonesia, Malaysia, and Thailand have more than 90% Small and Medium-sized Enterprises (SMEs). In general, SMEs play important role in economic developments such as in terms of employment, added value, improve foreign exchange, and economic growth. For Indonesia, the role of SMEs is limited to employment and added value, while the foreign exchange from SMEs is still low. According to the General Director of SMEs of Industrial Ministry, in 2013 the total SMEs being able to pass through export market is just under 5 percent. For that required many breakthrough and innovation so that the role of SMEs becomes real economic development, especially in Indonesia, and generally in ASEAN countries.

On behalf of Agribusiness Department of Universitas Muhammadiyah Yogyakarta, we would like to express our gratitude Putra University of Malaysia (UPM), Kasetsart University (KU), Association of Indonesian Agricultural Economy (PERHEPI), Agribusiness Association of Indonesia (AAI), Universitas Gadjah Mada (UGM) and Universitas Brawijaya (UB) for all supports, sponsors, and all committee members having worked so hard that this International Conference can be conducted.

Hopefully, these synergies coming from various parties can provide contribution for developing SMEs in Indonesia and other ASEAN countries as well.

Wassalamu'alaikum warahmatullahi wabarakatuh

Head of Agribusiness Department  
Universitas Muhammadiyah Yogyakarta



Ir. Eni Istiyanti, MP.



**Gubernur**

**Daerah Istimewa Yogyakarta**

**Sambutan**  
**KONFERENSI INTERNASIONAL**  
**“AGRIBUSINESS DEVELOPMENT FOR HUMAN WELFARE”**  
**Yogyakarta, 14 Mei 2016**

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Assalamu'alaikum Wr. Wb.

Salam sejahtera untuk kita semua.

Yang Saya hormati :

- Rektor Universitas Muhammadiyah Yogyakarta;
- Para Narasumber;
- Hadirin dan Para Peserta yang berbahagia,

Puji dan syukur marilah kita panjatkan kehadirat Allah SWT karena hanya atas limpahan rahmat serta karunia-Nya, kita dapat hadir pada kesempatan acara **Konferensi Internasional “Agribusiness Development For Human Welfare”** ini dalam keadaan sehat wal’afiat.

Pada kesempatan kali ini, secara ringkas Saya akan menyampaikan mengenai industri kecil menengah nasional yang menjadi tema pada pembukaan Seminar Internasional “Agribusiness Development For Human Welfare” ini.

**Hadirin dan Saudara-saudara sekalian yang Saya hormati,**

Berdasarkan data BPS, pertumbuhan industri pengolahan nonmigas pada tahun 2015 secara kumulatif sebesar 5,04%; lebih tinggi dari pertumbuhan ekonomi (PDB) pada periode yang sama sebesar 4,79%. Pada periode Januari-Desember 2015, nilai ekspor produk industri pengolahan nonmigas mencapai USD 106,63 Milyar, dan nilai impor mencapai USD 108,95 milyar, sehingga neraca perdagangan industri pengolahan nonmigas pada periode yang sama sebesar USD 2,32 milyar (neraca defisit).

Usaha pemerintah untuk memperkecil defisit di atas, salah satunya dengan cara memberdayakan Industri Kecil dan Menengah (IKM) yang merupakan bagian penting dalam perkembangan industri nasional. Sampai saat ini, Industri Kecil dan Menengah



telah berkontribusi sebesar 34,82% terhadap pertumbuhan industri pengolahan nonmigas secara keseluruhan.

Angka ini dapat tercapai karena dukungan lebih kurang 3,6 juta unit usaha, yang merupakan 90 persen dari total unit usaha insutri nasional. Jumlah unit usaha tersebut telah mampu menyerap tenaga kerja sebesar 8,7 juta orang, yang tentunya berdampak pada meningkatnya ekonomi nasional serta mengurangi kemiskinan.

Industri Kecil dan Menengah (IKM) memiliki peran yang strategis dalam perekonomian nasional. Hal ini sejalan dengan Visi Pemerintah dalam Rencana Pembangunan Nasional Jangka Menengah (RPJMN) 2015-2019 yaitu *“Terwujudnya Indonesia yang berdaulat, mandiri, dan berkepribadian berlandaskan gotong royong”*.

Untuk lebih meningkatkan peran tersebut, Penumbuhan dan Pengembangan Industri Kecil dan Menengah diarahkan untuk memiliki tujuan jangka menengah guna mewujudkan industri kecil dan industri menengah yang berdaya saing, berperan signifikan dalam penguatan struktur industri nasional, pengentasan kemiskinan dan perluasan kesempatan kerja, serta menghasilkan barang dan/atau jasa Industri untuk keperluan ekspor.

**Hadirin dan Saudara-saudara sekalian,**

Awal tahun ini, kita telah memasuki era Masyarakat Ekonomi ASEAN (MEA). Dengan demikian, perekonomian nasional akan langsung bersaing dengan para pelaku pasar di kawasan ASEAN. Produk dan jasa termasuk investasi negara-negara anggota telas bebas memasuki pasar di kawasan ASEAN.

Dalam rangka menghadapi hal tersebut, Pemerintah mengambil langkah-langkah strategis berupa peningkatan daya saing industri dan mendorong investasi di sektor industri; di mana peningkatan daya saing industri itu sendiri dilakukan melalui penguatan struktur industri dengan melengkapi struktur industri yang masih kosong serta menyiapkan strategi ofensif dan defensif dalam akses pasar.

Pemerintah telah melakukan Penguatan Sektor IKM dengan strategi ofensif dan defensifnya melalui beberapa program pelaksanaan, diantaranya antara lain: Penumbuhan Wirausaha Baru; Pengembangan IKM melalui Pengembangan Produk IKM serta Peningkatan Kemampuan Sentra dan UPT; Pemberian Bantuan Mesin dan Peralatan Produksi; Perluasan Akses Pasar melalui Promosi dan Pameran; Fasilitasi Pendaftaran Hak Kekayaan Intelektual; Fasilitasi Sertifikasi Mutu Produk dan Kemasan; serta Fasilitasi Pembiayaan melalui Skema Kredit Usaha Rakyat (KUR).

Saya berharap agar berbagai program-program pemerintah tersebut dapat didukung secara sinergis oleh seluruh komponen masyarakat. Untuk itu, Saya berpesan kepada Saudara-saudara sekalian agar semua program pemerintah dalam bidang

Industri, khususnya dalam program pemberdayaan Industri Kecil dan Menengah, didukung dengan sepenuh hati, agar dapat lebih bermanfaat bagi masyarakat dalam rangka pengembangan industri kecil menengah.

**Hadirin dan Saudara-saudara sekalian yang Saya hormati,**

Demikian beberapa hal yang dapat Saya sampaikan. Akhirnya dengan memohon ridho Allah Subhanahu Wata'ala, seraya mengucap "*Bismilahirrahmanirrahim*", **Konferensi Internasional "Agribusiness Development For Human Welfare"** dengan ini secara resmi Saya nyatakan dibuka. Semoga Allah SWT memberikan petunjuk, bimbingan, perlindungan dan kemudahan dalam setiap langkah dan upaya kita. Amien.

Sekian dan terima kasih.

Wassalamu'alaikum Wr. Wb.

Yogyakarta, 14 Mei 2016  
GUBERNUR  
DAERAH ISTIMEWA YOGYAKARTA



**HAMENGKU BUWONO X**

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## ANALYSIS OF THE PROFITABILITY OF DAIRY FARMERS BASED ON THE SCALE OF LIVESTOCK OWNERSHIP IN DISTRICT SEMARANG

Mukson\*, S.I.Santoso, H.I.Nisa, H. Setiyawan and M. Handayani  
Faculty of Animal and Agriculture Science, Diponegoro University, Semarang  
\*corresponding author: mukson.fapetundip@gmail.com

### ABSTRACT

The study aims to determine the productivity of dairy cattle and profitability based on the scale of livestock ownership in the District of Semarang, Central Java. The research method used survey method. Dairy farmer samples taken randomly based membership Village Unit Cooperatives (KUD). Taken 3 KUD are "purposive sampling", ie KUD Getasan, KUD Sumber Karya Pabelan and KUD Karya Mekar Ungaran. Samples taken as many as 30 farmers each KUD, so overall by 90 farmers. Data analysis was performed by descriptive quantitative and qualitative and economic calculation effort. The results showed average milk productivity as much as 7.03 liters/head/day. Profitability of the business is based on a scale of ownership shows that the scale of effort I (1-2 heads) of 53.36%, the scale II (3-4 heads) 55.42% and scale III (> 4 heads) amounted to 58.05%. The average level of profitability of 55.61% greater than the interest rates on bank loans and deserves to be developed.

**Keywords: profitability, scale of livestock ownership, dairy cattle**

### INTRODUCTION

The existence of the business of dairy cattle are very helpful people's lives, especially in terms of economic resources, family, employment, reduce poverty levels in the countryside, a supplier of industrial raw materials, the provider of animal food of high quality, and help protect the environment with the use of organic fertilizers. Dairy farm is still mostly done by livestock farmers of the people, so that the production and productivity of enterprises is still low (Mukson et al., 2010). The performance level of milk production of dairy cattle on average currently at 7-10 liters/head/day. The factors that lead to low production according Boediyana (2009) are: 1) not efficient for small-scale ownership, and generally as a sideline business, 2) the level of milk prices at the farm level low is not balanced with the cost of production, 3) farmers have not many realize the importance of maintaining hygiene in the handling of milk, and 4) the lack of access to capital, especially low interest rates.

Conditions dairy cattle business today is limited venture capital, scale

livestock ownership is still relatively small, feeding both the quality and quantity is limited, management of dairy cattle business is still less attention to the technical aspects of a true effort so that the level of milk production and quality is still low, productivity not efficiency and maximum effort. Situation dairy cattle business in turn result in low productivity, efficiency and revenue as well as business competitiveness.

At this time the government has done revitalization milk program with the aim of increasing production and productivity of dairy cattle. Other programs related to dairy development is the issuance of Presidential Decree No. 28 Year 2008 on the National Industrial Policy which among others emphasize the increased productivity of livestock, population and ownership of livestock, milk quality, improved feed, human resources, cooperation and partnership with IPS, capital and increase milk consumption. But until now there are still many obstacles on the productivity of the business, so it needs strategic effort for developing and strengthening efforts to

increase the productivity of dairy cows. Agribusiness development program directed at the dairy farm business people need to pay attention to improved productivity and profitability. This is in line with the opinion of Soekartawi (1994) that the productivity of the agricultural / livestock affected by technical factors, social and economic. Productivity in the broad sense regarding the relationship between the output (output) to the input (input) which is used to produce value added (value added) with unused resources / resources used (Suprihanto, 1997). Productivity is not just the size of the production or output produced, but the size of the level of use of resources to achieve a mission or achievements to be expected. Furthermore it is said by Rusdiana and Sejati (2009) that the business profits increase if the farmer has a good management, inadequate business scale, provide adequate food and quality. Farmers must optimize production cost to gain more leverage in the cattle business, Based on the above issues, this study was conducted in order to determine the productivity of dairy cattle folk and profitability based on the scale of livestock ownership in the District of Semarang, Central Java.

## METHOD

Research conducted at the Semarang District, with the consideration that the Semarang District is a center of dairy development in Central Java. The study was conducted from October 2011 to March 2012. The research method used survey method, which is taking a sample from a population with a questionnaire as a data collector (Singarimbun and Effendi, 1996). Dairy farmers samples taken randomly based membership Village Unit Cooperatives (KUD). Taken 3 KUD are purposive sampling, they were KUD Getasan, KUD Sumber Karya Pabelan and KUD Karya Mekar Ungaran. Samples taken as many as 30 farmers each KUD, so overall by 90 farmers. The data consist of primary data, collected through interviews with dairy farmers include the respondent's identity,

business conditions, the number of livestock ownership, milk production, and cost aspects, as well as a business reception. Data analysis was performed by descriptive quantitative and qualitative and economic calculation effort. The income level of farmers is calculated by the formula (Rahim and Dwi Hastuti, 2007):

Farmer income (Pd) = Total revenue (TR) - Total costs (TC) ..... (1),

the next level of profitability calculated as per the instructions Riyanto (1995), namely:

$$\text{Profitability} = \frac{\text{income}}{\text{production cost}} \times 100\% \dots (2)$$

Phi > interest rate → profitable

## RESULT AND DISCUSSION

Semarang district is the center of dairy development in Central Java. By geographic area of 95,020,674 hectares Semarang regency. Semarang regency altitude between 318 m - 1,450 m and an average of 607 m above sea level. The area with the lowest height is located in the district of 318 m and the highest Ungaran located in District Getasan 1,450 m, with temperatures ranging between 23 - 26°C, with humidity ranging from 80-81%. The average rainfall is 1,979 mm and the number of rainy days is 104. Based on the geographical picture, especially the air temperature is very suitable for the development of dairy cattle (Sudono et al., 2003).

Based on the ownership of livestock (lactating and non-lactating cows) and the production of dairy farmers in Semarang District KUD members can be seen in Table 1. The average rate of 2.3 livestock ownership lactation tail with average milk productivity of 7.03 liters/heads/day. According to Suzuki et al. (2006) that there are differences in milk productivity and business management relation to the environment and location of the region. Dairy cattle business with the sustainability of production is expected to have a ratio > 60% (Sudono et al., 2003).



Table 1. Ownership level and Milk Productivity in Dairy Cattle Farmers in District Semarang

No	Explanation	Owners level and Milk Production		
		Farmer KUD Getasan (n=30)	Farmer KUD Sumber Karya (n=30)	Farmer KUD Mekar (n=30)
1	The number of cattle lactation (head)	84	66	58
2	Total non-lactating cattle (head)	112	52	43
3	The ratio of non-lactating cows and lactation	1 : 1,33	1 : 0,78	1 : 0,74
4	Milk productivity (liters/head/day)	7,48	7,59	6,03

#### Identity Respondents Dairy Cattle Farmer

The identity of the respondents were analyzed based on the parameters of age, education, livelihood and experience breeder. The results of the study are presented in Table 2.

Characteristics of respondents indicate that dairy farmers age categories including productive, with a range of 27-59 years as many as 92.22% and more than 59 years of 7.77%. Level primary School 54 (60.00%), a junior high school 26 people (28.89%), high school 10 people (11.11%). The overall level of education is still relatively low, and it can affect the level of innovation dairy cattle business. Job respondents include: farmer-breeders 62 (68.89%), labor 18 people (20%), entrepreneur 6 (6.67%), government employees 2 (2.22%) and others, 2 (2.22%), dairy cattle breeding experience of respondents ranged 1-6 years as many as 30 people (33.33%), 7-11 years as many as 28 people (31.11%), 12-16 years as many as 21 people (23.33%), more than 16 years of 11 (12.22%). Business experience relatively long, but the dairy cattle business is run traditionally. According Lestariningsih et al. (2008) that

the work experience in the field of dairy farming influence on business skills.

Table 2. Respondent identity of Dairy Cattle Farmers in District Semarang

No	Identity Respondents	Amount	Percentage
		---	--- (%) ---
		(person)	
1	Age		
	a. 25 -59 years	83	92,22
	b. > 59 years	7	7,77
2	level of education		
	a. primary school	26	60,00
	b. junior high school	10	28,89
	c. high school	54	11,11
	d. postgraduate	0	0,00
3	livelihood		
	a. farmer	44	48,89
	b. breeder	18	20,00
	c. labor	18	20,00
	d. entrepreneur	6	6,67
	e. government employee	2	2,22
	f. other	2	2,22
4	raising experience		
	a. 1-6 years	30	33,33
	b. 7-11 years	28	31,11
	c. 12-16 years	21	23,33
	d. >16 years	11	12,22

#### Analysis of Costs, Revenues and Operating Revenues Dairy Cattle

Analysis of operating expenses dairy cattle Farmers respondents can be seen in Table 3.

Based on production costs show that the scale of I to IDR1,089,643.84, the scale of IDR 1.426.288,53 II and III scale for IDR 1.687.133,89/month. The cost is the cost of feed concentrates, scale I Rp. 498,223.88 (45.72%). Scale II IDR 804 375, - (56.39%) and scale III IDR 984 000 / month (58.32%). Furthermore accordance Budiarsana and Juarini opinion (2008) that the cost of feed in total production costs are the largest expense of a dairy farm.

Table 3. Average Cost of Production Cattle in District Semarang

No	Types of Cost	Production Cost		
		Scale I	Scale II	Scale III
-----IDR/month-----				
1	Consentrate feed	498.223,88 (45,72%)	804.375,0 (56,39%)	984.000,0 (58,32%)
2	Grass feed	482.462,68 (44,27%)	505.078,1 (35,41%)	600.321,4 (35,58%)
3	AI	59.701,49 (5,47%)	62.812,5 (4,40%)	47.142,86 (2,79%)
4	medicines and vitamins	4.335,82 (0,39%)	4.812,5 (0,33%)	4285,71 (0,25%)
5	membership dues	6.417,91 (0,58%)	5.312 (0,37%)	5.312,5 (0,31%)
6	Depreciation Cages & Equipment	38.502,06 (3,53%)	43.898,43 (3,07%)	46.071,42 (2,73%)
Total cost		1.089.643,84	1.426.288,53	1.687.133,89

Description: Scale I (1-2 head), Scale II (3-4 head) and Scale III (&gt; 4 head)

Table 4. Revenue Level Enterprises Dairy Cattle Farmers in District Semarang

No	Types of Revenue	Effort Scale		
		Scale I	Scale II	Scale III
---IDR/month---				
1	Sales of milk	1.082.687 (64,78%)	1.722.469 (77,70%)	1.620.249 (60,75%)
2	Sales of calf	586.442,78 (35,09%)	484.375 (21,85%)	1.023.810 (38,39%)
3	Sales of fertilizer	1.990,04 (0,11%)	9.899,83 (0,44%)	22.619,04 (0,54%)
Total		1.671.119,82	2.216.743,5	2.666.678,04

Table 5. Income level of Dairy Cattle Farmers Members KUD

No	Explanation	Amount		
		Scale I	Scale II	Scale III
-IDR/month-				
1	Revenue	1.671.119,82	2.216.743,5	2.666.678,04
2	Production cost	1.089.643,84	1.426.288,53	1.687.133,89
Income		581.475,98	790.454,97	979.544,15
R/C ratio (1/2)		1,53	1,55	1,58

## Analysis of Revenues and Operating Revenues Dairy Cow

Acceptance of dairy cattle business show that the scale of I average of IDR 1.671.119,82, Scale II IDR 2216743.5, scale III IDR 2,666,678.04/month. The reception is from the sale of milk, average a 67.75% contribution of total revenue effort. Results revenue dairy cattle business can be seen in Table 4.

Based on the income level of farmers, I scale the average of IDR 581,475.98, scale II IDR 790,454,97 and scale III IDR 979,544.15 / month. Dairy farmers good income scale I, II and III positive, which means that the costs can still be covered with a business reception.

Opinions Rahim and Dwi Hastuti (2007) states that income is the excess of the value of the costs incurred by the revenues generated from a form of production activities. The size of the farmer's income earned depends on the amount of revenue received, as well as production costs.

## Dairy Cattle Business Profitability

Profitability of dairy cattle Farmers (shown in Table 6), for each scale is 53.36% (scale I), 55.42% (scale II) and 58.05% (Scale III), Table 6. Dairy Cattle Business Profitability in District Semarang

No	Explanation	Level of Profitability		
		Scale I	Scale II	Scale III
		---IDR/month---		
1	income	581.475,98	790,454,97	979.544,15
2	Production cost	1.089.643,84	1.426.288,53	1.687.133,89
	Profitability (1/2x100%)	53,36%	55,42%	58,05%

or an average of 55.61%, which means dairy cattle business is profitable enough (greater than bank lending rates, 15%). Emawati research results (2011) level of profitability of dairy cattle at Sleman Regency measurement IRR of 41.79%.

## CONCLUSION

The productivity of dairy cattle business people in Semarang district average is still below the target lower national revitalization milk. Profitability of the business quite profitable, already above lending rates of commercial banks and people's dairy business to develop.

## REFERENCES

- Boediyana, T. 2009. Pengembangan model usaha agribisnis sapi perah dalam upaya peningkatan pendapatan usaha kecil dan menengah. *Makalah dalam Workshop oleh Ditjen P2HP*, Bandung.
- Budiarsana, I.G.M. and E. Juarini. 2008. Analisis biaya produksi pada usaha sapi perah rakyat: studi kasus di daerah Bogor dan Sukabumi. *Semiloka Nasional Prospek Industri Sapi Perah Menuju Perdagangan Bebas – 2020*: 503-506.
- Emawati, S. 2011. Profitabilitas usahatani sapi perah rakyat di Kabupaten Sleman. *Sains Peternakan* 9(2): 100-108.
- Lestariningsih, M., Basuki, and Endang, Y. 2008. Peran serta wanita peternak sapi perah dalam meningkatkan taraf hidup keluarga. *Ekuitas* 12(1): 117-137.
- Mukson, T., Ekowati M. Handayani, and D.W. Harjanti. 2009. Faktor-Faktor Yang Mempengaruhi Kinerja Usaha Ternak Sapi Perah Rakyat Di Kecamatan Getasan Kabupaten Semarang. *Seminar Nasional Kebangkitan Peternakan. Fakultas Peternakan UNDIP*: 339-345.
- Rahim, A., and D. R. Dwi Hastuti. 2007. *Ekonomika Pertanian (Pengantar, Teori dan Kasus)*. Cetakan I.

- Jakarta: Penerbit Penebar Swadaya.
- Riyanto, B. 1995. *Dasar-dasar Pembelanjaan Perusahaan*. Yogyakarta: Badan Penerbit Fakultas Ekonomi Universitas Gadjah Mada.
- Rusdiana and W.K. Sejati. 2009. Upaya pengembangan agribisnis sapi perah dan peningkatan produksi susu melalui pemberdayaan koperasi susu. *Forum Penelitian Agro Ekonomi* (1):43-51.
- Singarimbun, M., dan S. Effendi. 1996. *Metode Penelitian Survei*. Jakarta: LP3ES.
- Soekartawi. 1994. *Teori Ekonomi Produksi*. Jakarta: PT. Raja Grafindo Persada.
- Sudono, A., Rosdiana, R. Fina dan B. Setiawan. 2003. *Beternak Sapi Perah Secara Intensif*. Jakarta: Agro Media Pustaka.
- Suprihanto, J. 1997. *Manajemen Personalia*. Yogyakarta: Penerbit BPFE, Universitas Gadjah Mada Gadjah Mada.
- Suzuki., K. M. Kanameda, T. Ogawa, T.T.D. Nguyen, T.T.S. Dang, Q.H. Luu, and D.U. Pfeiffer. 2006. Productivity and socio-economic profile of dairy cattle farmers amongst rural smallholder communities in northern Vietnam. *Livestock Science* 101 (1-3): 242-250

### DISCUSSION FROM PARALLEL SESSION

<b>PAPER TITTLE</b>	Analysis of The Profitability of Dairy Farmers Based on The Scale of Livestock Owership in District Semarang
<b>AUTHOR</b>	Mukson, S.I. Santoso, H.I.Nisa, H.Setiawan, M.Handayani
<b>DISCUSSION</b>	
<b>QUESTION</b>	<ol style="list-style-type: none"> <li>1. Two object (Productivity and profitability) should be clearly formulated for both objectives</li> <li>2. Objective no 1 (productivity)is not yet answered</li> <li>3. What are the indicator of profitability?</li> <li>4. Profitability should be needed by using profit analysis but the way to adjusted the profit is 2 mentioned, labor cost?</li> </ol>
<b>ANSWER</b>	
<b>SUGGESTION</b>	<ol style="list-style-type: none"> <li>1. English native check is <u>brightly</u> needed</li> <li>2. Make sure the calculation of profit is correct</li> <li>3. If is better to use profitability index (IRR)</li> <li>4. If use profit, ensure the calculation of income (labor cost) is included</li> <li>5. Two objectives in the slides (productivity &amp; profitability) make sure that the terminology is correct</li> </ol>



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#### SECRETARIAT OFFICE

F3 Ground Floor, Agribusiness Department,  
Universitas Muhammadiyah Yogyakarta  
Jalan Lingkar Selatan Tamantirto,  
Bantul. D.I.Yogyakarta 55183  
Phone +62274 387656 (Ext 201)  
Fax +62274 387646

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