

PROCEEDINGS OF
THE 4TH INTERNATIONAL CONFERENCE ON
SUSTAINABLE ANIMAL AGRICULTURE FOR
DEVELOPING COUNTRIES (SAADC2013)

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PREFACE

SAADC2013 is the fourth in the biennial conference on *Sustainable Animal Agriculture for Developing Countries*; the first being held in Kunming, China in 2007 and the second and third in Kuala Lumpur, Malaysia and Nakhon Ratchasima, Thailand in 2009 and 2011 respectively. This series of conferences is designed to provide a platform for the exchange of experience and knowledge among academicians, researchers, graduate students and producers for development of sustainable animal industry in developing countries. A total of 181 Extended Abstracts have been accepted for presentation during the 4-day conference and are published in this proceedings.

The Extended Abstracts, submitted by participants from 26 different countries, consist of 2 Keynote addresses, 10 Plenary lectures, 13 Lead papers and 162 scientific presentations. They cover policies and management strategies, nutrition and feeding, physiology, breeding and genetics, production systems, and biotechnology pertaining to the development of a sustainable livestock industry.

The SAADC2013 had assembled together a proficient team for the Editorial Board. However, their duties were constrained by the late submissions of many abstracts, hence these will appear 'as is' with minimal editing. The accuracy of the contents, including methodologies and results of the Abstracts are the sole responsibility of the authors.

I would like to extend my sincere gratitude to the members of the SAADC2013 Editorial Board for their commitment and diligence in coming up with this Proceedings.

With best regards

Chairman SAADC2013 Editorial Board

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Sustainability Beef Cattle Development for Beef Supply in Central Java, Indonesia

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Summary

The study aims were to identify farm potency to support the production sustainability and technology adoption and to support the beef self sufficiency program in Central Java. The regencies were Blora, Sragen and Wonogiri. Farmers was chosen by purposive sampling is based on scale of ownership minimal 2 animal unit (AU). 50 (fifty) farmers on every regency was chosen. So Total of 150 beef cattle farmer was chosen as respondents. Beef cattle were owned by farmers were 2.48-3.62 AU. Usually farmers raise their cattle by small scale. Farmers with high number cattle own have adoption technology tend to decrease. The result showed production pattern positively influence technology level.

Keywords: development, sustainable, beef supply, beef cattle,

Introduction

Livestock development especially to develop beef cattle in Indonesia should be done through sustainability, modern and professional efforts. Utilization of technology innovation to enhance the efficiency business is needed. Constraint to develop beef cattle especially local strain is low productivity. Reproduction disorder usually is occurred in local beef cattle due to estrus delay (Yusuf et al., 2012). Longer time of estrus cycle after birth limits reproduction efficiency in tropical area (Montiel and Ahuja, 2005). Service per conception is high (Ilham, 2006), low quality of mating management (Winugroho, 2002) and low ability of farmer to adopt the technology (Roesali et al., 2009). Effort to increase the beef cattle productivity is conducted through policies which apply to the beef cattle farmers. There were five factors which should be applied to obtain the self sufficiency program 1) depress the mortality, 2) prevent the female productive cow, 3) delay the slaughter time follow the genetic potency, 4) conduct the artificial insemination, and 5) increase the genetic quality and improve the business efficiency. The objective of the study were to identify farm potency to support the production sustainability and technology adoption and to support the beef self sufficiency program in Central Java.

Materials and Methods

Survey method was used in the study. Beef cattle farmers location were chosen as purposive in 3 (three) regency in Central Java is based on Location Quotient (LQ) > 1, the regencies were Blora, Sragen and Wonogiri. Farmers was chosen by purposive sampling is based on scale of ownership minimal 2 animal unit (AU). 50 (fifty) farmers on every regency was chosen. So Total of 150 beef cattle farmer was chosen as respondents. Descriptive analysis was used to identify the farm potency and logit analysis was used to determine the technology adoption.

Results and Discussion

Result of the study showed farm potency was based on land power supporting which was chosen on location quotient (L/Q) was good. All of regencies have (L/Q) >1. Land width was 0.52 ha on average and can support cattle feed. Number of cattle raised by farmers was 2.99 AU. Farmers profile is shown in Table 1. Implementing of Integration of plant-cattle program by government is one of policy which is socializing to the beef cattle farmers. Most of Beef cattle farmers have the knowledge on feed processing such as rice straw fermentation (61.33%). From the amount 32.61% farmers can produce for their own cattle and 16.67% of farmers can produce rice straw fermentation for cattle owned by group. Barrier and constraint to apply rice straw fermentation was time is allocated to prepare the material and labor.

Table 1. Farmers Profile in three regencies

Item	Wonogiri	Sragen	Blora
L/Q	1.8	1.9	1.7
Land width (Ha)	0.62	0.54	0.40
Number of cattle (AU)	3.62	2.86	2.48
Age (year)	41.02	44.10	45.22
Education (year)	6.74	7.34	6.55
Experience (year)	16.17	11.1	12
Number of Family (persons)	3.66	2.5	2.9
Beef cattle contribution (%)	41.24	37.85	36.58

Adoption technology of feed significantly was affected by education, experience, number of cattle. However land width and LQ not significantly influence the adoption technology. Model was fit because chi square on (0.000) significance level and level of prediction was 63.33%. Education level was relatively high ($\beta=-1.52$ sig. 0.096) and experience was relatively long ($\beta=-0.69$ sig. 0.091). Adoption technology of feed was decreased. Finding the result showed the increasing number of cattle owned by farmers ($\beta=-0.77$ sig. 0.0345) would decreased the adoption technology level even production pattern positively influence to the adoption technology level. Beef cattle were owned by farmers were 2.48-3.62 AU. Usually farmers raise their cattle by small scale. Farmers with high number cattle own have adoption technology tend to decrease. The result showed production pattern positively influence adoption technology level.