


Improving Milk Supply, Competitiveness and Livelihoods in Smallholder Dairy Chains in Indonesia

UPDATE OF THE INDODAIRY EXTENTION AND TECHNOLOGY DISEMINATION

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Project agencies and partners

Indonesia	Australia
Indonesian Centre for Animal Research and Development (ICARD)	*University of Adelaide*
Bogor Agricultural University	*Subtropical Dairy Programme (a regional arm of Dairy Australia)*
Indonesian Centre of Agricultural Socio Economic Policy Studies (ICASEPS)	

INTRODUCTION

- Indonesia's dairy industry is concentrated in Java, consisting 192.160 dairy farmers, 17 cooperatives and IPS
- The main constraints on farm are business scale, cattle nutrition, farm management, reproductive performance and milking.
- Focus on increasing the income of small dairy farmers
- Recently, about 12% of fresh milk meets SNI for TPC, fat and TS. TPC is affected by mastitis, milking, and long time transport of milk from farmers - cooperative cooling facilities - IPS. Total dairy products, fat and TS are influenced by feed, cattle house and health, CI and purchase price by cooperative and IPS.

INTRODUCTION

- The role of cooperatives and IPS needs to be altered for improving the performance of cooperatives, infrastructure, extension and services, such as, human resources, transportation, cooling units, rapid test of milk quality, market information, consumer trends and milk prices.
- The main challenge needs to be more focused on increasing milk production and quality that affects the share of farmer margins.

OVERALL GOAL

Improving dairy cattle production cycle and development to increase 25% milk production and to improve milk quality 25%

Objectives

Develop, pilot and evaluate best-bet dissemination to improving adoption of innovative dairy management practices by smallholder farmers in West Java. *(ICARD)*

Objective

Act.	
1	Co-Design with an integrated dissemination program through training and focusfarm with researchers, extension staff, service providers and the provocation sector in technical areas of nutrition and forage management, livestock and reproduction, milk quality, and business management.
2	Application of feed technology through focusfarm in farmer cooperator and implementation of training on feed, milking and reproduction management, animal house and animal health
3	Pilot and evaluate dissemination program (training and focusfarm) with researchers, extension staff, service providers in West Java

Improving the productivity of dairy cattle

Based on survey results
Based on the problems that often occur in KUD and farmers
Topic :

- Implementation of Good Farming Practice
- Concentrated Feed
- Forage (introduction of new varieties, fertilizers, silage)
- Cow reproduction
- Milking Management (to obtain the highest quality and production)
- Animal health management, handling of residues of antibiotics
- Extension methods and infrastructure
- Business

Materials and methods of dissemination

- Training for extension workers and breeders (Presentation, Video, photos, etc.)
- Distribution of technology introduction brochures
- Technological assistance
- Regular group farmer meetings
- Personal visits
- Demonstration Plot (Demplot)
- KUD meetings

Application of feed technology through focusfarm in farmer cooperator

Focus farm

Coming from five selected cooperatives:

- KPBS Pengalengan,
- KPGS Cikajang,
- KUD Giri Tani,
- KPS Cianjur Utara and
- KPS Bogor.

Purposive sampling method is used to choose 18 farmers

Application of Feed Technology Introduction

As many as 82 cows of 5 KUD will be introduced:

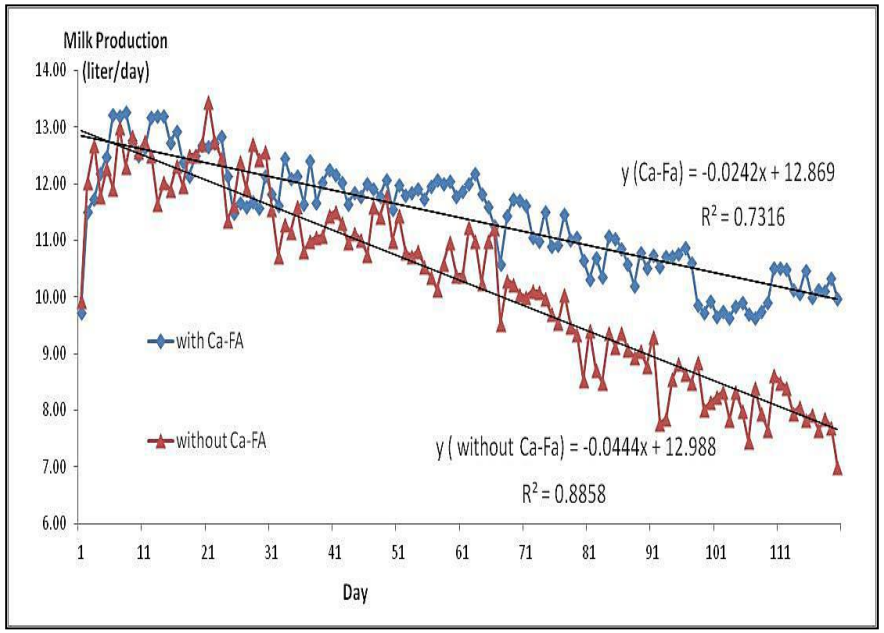
1. Increase CP content of concentrate feed from 13-14% to be 16%
2. Supplementation of Kalem (calcium + fatty acid)

Feeding:

- 3 months Concentrate CP 16% + KALEM 200 g/h
- Feeding of Kalem for 1 month before and 2 month after partus

Effect of feeding Kalem in cows:

- Improved milk production 7.4%
- Maintain the persistence of milk production
- Increase nutrient digestibility of feed.
- Ca-FA from Kalem contributes additional energy that increased body weight of cow after calving



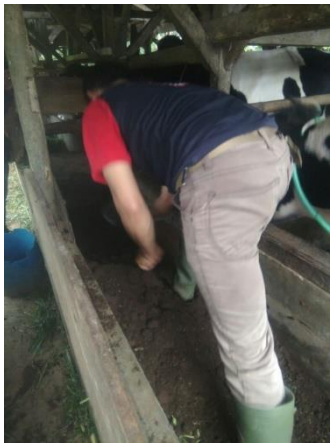
Data recorded:

Biological and socio economic data collected:

- Monthly visits and meetings with 12 farmers, extension staff and recorders for 1 year in five selected cooperatives.
- Data recording cover 18 farmers.
- The variables recorded are cow production and reproduction data, milk production and quality
- Sample for feed and milk analysis are taken from farmer and milk collection place.

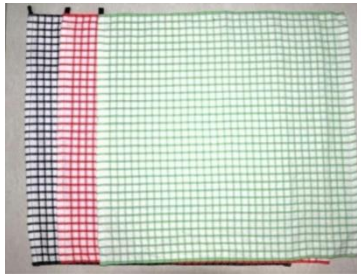
Place of feeding and drinking cows

EXISTING CONDITIONS
Difficult to clean (can cause disease, fungi / mycotoxins)
Odor due to residual food, reduces palatability
Feeding is mixed with drinking water



Improving feed and drink place

introduction of several milking equipment and animal housing



Milk quality analysis tool

Meeting and Training for fulfilling small farmers requirements

- Change farmers "passion" to regard and to trust KUD including (executive and field staffs)
- Good farming practice
- Improvement in feed and feeding, and drinking water consumption (changes feed availabilities)
- Reproduction abilities to reduce calving interval

Training and capacity buildng for Vilage level Researcher and field officers

Indodairy Nutrition Workshop

- Research observations are still ongoing
- Temporary observations show that with an increase in protein concentrates in feed, the tendency has increased milk production of about 2 liters / head / day

Temporary Conclusion

- The introduction of technology through dissemination can be done to increase the production and quality of cow's milk in farmers
- Consideration of economic value needs to be done for the sustainability of the farmers' business

THANK YOU