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HOW TO INCREASE QUALITY AND QUANTITY IN DAIRY CATTLE AS DUAL PURPOSE BY GENETIC IMPROVMENT

Argi Argiris, IPB Bogor, Indonesia

Contributed presentation at the 60th AARES Annual Conference,
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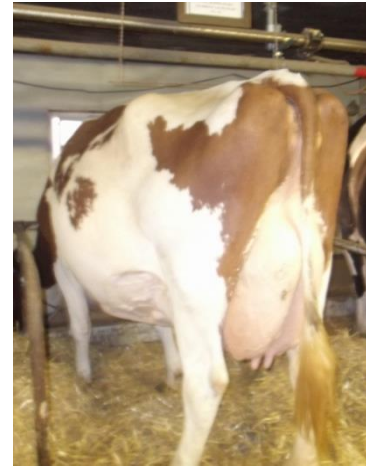
Background

- **Australia Awards Indonesia: Red Meat Partnership Policy Training Course, April-May 2015**
 - 10 technical staff from Ministry of Agriculture, Indonesia
 - 6 week short introductory policy course
 - funded by DFAT/DAFF
 - managed by Coffey International, Jakarta
 - delivered by UQ International Development



Dairy industry in Indonesia

- Dairy cattle are dual purpose, for milk and beef
- Average milk production is low (10.5 lt/day)
- Low quality standards for milk processing
- Identification on cattle is not effective
- Mobility of calves is high
- Difficult to get good data on animal performance
- Design of breeding policy



Problems

- How to increase dairy cattle population
- How to increase average milk production
- Start to identify cattle
- How to get good data as a basic tool to make good policy (population, reproduction, production, breeding management etc)
- How to introduce improved technology (reproduction, production, feeding, breeding, animal health, etc)

GENETIC IMPROVEMENT by BREEDING SCHEME

PhD project, IPB Bogor

- Customer satisfaction with dairy semen from AI Centres in Indonesia
 - 2 AI centres in Indonesia, supply same product, compete in same market
- Assessment of semen quality supplied by centres
 - Possibility of introducing technology from Australia
 - Beef Breeding Services, Rockhampton - adapted microscope used to identify sperm with better survival rates
 - Opportunity to cooperate with Australia to export semen to Asian and African countries
- Survey customers in 5 areas in East Java regarding semen performance
- Investigate microchipping of calves so their location during their life can be tracked
 - Performance recording and estimation of breeding values
- Economic evaluation of natural breeding compared to AI in beef cattle



POTENTIAL RESULTS

- ◉ Introducing new genetics for better quality and quantity of milk
- ◉ Increased milk production
- ◉ Introduce a performance recording system
- ◉ Get good data on animal performance
- ◉ Efficiency of reproduction/production etc
- ◉ Make better policy decisions with good data
- ◉ Increase farmers' incomes



BULL CATALOG (PROVEN BULL)

Vista

PRODUCTION CAM (07/96)			51 daus.	47 herds	(83 % Rep.)
Estimated Breeding Values			kg	% Rank	
MILK	+2287	99			
FAT	+0.02	+86	99		
PROTEIN	+0.02	+74	99		

LPI +1733
% Rank 99

TEV +762\$
% Rank 99

CONFORMATION CAM (07/96)			51 daus.	48 herds	(70 % Rep.)
	1st/1st	% Rank	0	+4	+8
CONFORMATION	+4	73			
DAIRY CHARACTER	+10				
FRAME / CAPACITY	+7				
RUMP	+8				
FEET & LEGS	+5				
MAMMARY SYSTEM	+2				
FORE UDDER	-3				
REAR UDDER	+6				
SIZE	+9				
STATURE	+6				

Descriptive Traits

Chest	Loin	Rump	Pin	Foot	Bone	Leg	Udder	Med.	Fore	Rear	Rear	Fore
Floor	Strength	Width	Setting	Qual.	Set		Texture	Susp.	Attach.	Height	Width	Tests
+4	+9	+9	+2L	+4	+6	+2C	+8	+8	-3	+5	0	-7

Auxiliary Traits

Calving Ease (84% Rep.)									Milking Speed (76% Rep.)									Herd Life (41% Rep.)			Somatic Cell Score (66% Rep.)		
1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	2.5	3.0	3.5	3.5	3.0	2.5
Difficult			Average			Easy			Very Slow			Average			Very Fast								



**MAYERLANE
VISTA ET**

GP

70HO0730

Reg. #: USAM2159770

Birthdate: 91/01/01

Sire: Rothrock Tradition Leadman EX GM

Dam: Mayerlane Velmas Velvet ET VG

02-02 305 12,869 461 3.60% 422 3.30% (kgs)

I Lact: 14,706 530 3.60% 489 3.30%

MGS: Walkway Chief Mark VG SP GM

THANKYOU

