



THE EVALUATION OF DRY MATTER AND NUTRIENT INTAKE ADEQUACY ON DAIRY CATTLE IN INDONESIA

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INTRODUCTION

- ❑ The scale of ownership of lactation dairy cows in Indonesia is relatively low with an average of 3-4 heads.
- ❑ The supply of feed is dependent on the availability of land owned by farmers.
- ❑ In addition, the quantity and quality of feed provided varies, and depend on the scale of cattle ownership.
- ❑ Therefore an evaluation is needed to know the adequacy of nutrients and their relation to milk production.



OBJECTIVES

- ❑ To evaluate the adequacy of nutrients in dairy cows and their relation to milk production.

METHODS

- ❑ This study observed 144 lactating cows from three locations: Boyolali, Jogjakarta and Malang.



- ❑ The parameters measured:
 - ❑ Feed intake, nutrient intake, body weight, (BCS) Body Condition Scoring, milk production and nutrient balanced.
- ❑ Data were analyzed by using T-test.

RESULTS

- ❑ Based on the milk production level, the high-producing cows had higher body weight, BCS and milk production compared to medium- and low-producing cows (Table 1).

Table 1.
Average of body weight, BCS and milk production

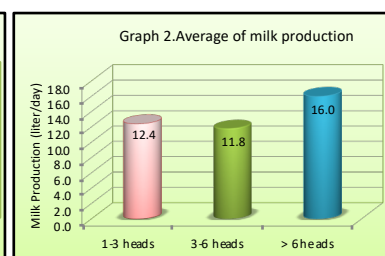
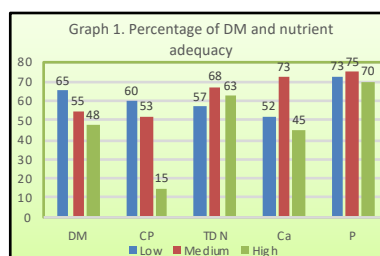
Parameter	Low	Medium	High
Body Weight (kg)	394±37.3	407±33.2	424±43.3
BCS (1-5 scale)	2.51±0.27	2.58±0.26	2.60±0.26
Milk Production (liter/day)	16.0±2.00	11.8±3.62	12.4±5.07

- ❑ The consumption of dry matter, crude protein and TDN were higher on dairy cows of small scale farmers. However, the Ca and P consumption were lower (Table 2).

Table 2.
Average of DM, CP, TDN, Ca and P

Parameter	1-3 heads	4-6 heads	>6 heads
Dry Matter (kg/day)	11.78	12.19	13.84
CP(kg/day)	1.37	1.29	1.69
TDN (kg/day)	7.46	7.33	8.9
Calcium (g/day)	60	50	20
Phosphor (g/day)	30	30	20

- ❑ More productive dairy cows more suffer from less consuming DM, CP, Ca and P (Graph 1).
- ❑ Milk production was determined by the scale of ownership. The milk production of large scale was higher than smaller scale (Graph 2)



CONCLUSION

- ❑ Based on these results it was concluded that the feeding of lactating dairy cows in Indonesia was still below the standard requirements, so that it did not support high milk production.