



Tropentag, October 6-8, 2009, Hamburg

“Biophysical and Socio-economic Frame Conditions
for the Sustainable Management
of Natural Resources”

Performance of Mehsana Buffalo Calf Raising

NOPPADON CHOOSMUT¹, CHOKE MIKLED¹, NATTAPHON CHONGKASIKIT¹, SUPHAROEK
NAKKITSET², VICHIT SONLOY², KANITTA TIKAM³

¹*Chiang Mai University, Department of Animal Science, Thailand*

²*The Royal Project Foundation, Thailand*

³*University of Bonn, Institute of Animal Science, Germany*

Abstract

Nine Mehsana buffalo calves about 4 weeks of age were divided into 3 groups to feed with 3 kinds of milk namely buffalo milk, cow milk and milk-replacer. This experiment was conducted at Mae Tha Nhua Royal Project Development Centre, Mae On district, Chiang Mai province. The average initial weight for the buffalo calves fed with buffalo milk, cow milk and milk replacer were 41.7 ± 1.89 kg, 39.0 ± 3.61 kg and 40.0 ± 4.24 kg, respectively. The study on growth performance of 3 groups of calf, the results has shown that an average daily gain (ADG) for the calf fed with buffalo milk was equal to the calf fed with cow milk (0.56 kg day^{-1}) and higher than the calf fed with milk replacer (0.34 kg day^{-1}) ($p < 0.05$). For body weight gain the result shown that the calf fed with buffalo milk and cow milk (47.3 ± 3.69 and 47.0 ± 5.57 kg, respectively) were significant higher ($p < 0.05$) than the calf fed with milk replacer (28.5 ± 0.71 kg). Milk intake was significant lower in the calf fed with buffalo milk than the calf fed with milk replacer and the calf fed with cow milk (254.5 ± 8.32 , 425.50 ± 71.42 and $444.3 \pm 24.50 \text{ kg head}^{-1}$), respectively ($p < 0.05$). When consider about cost, the calf fed with milk replacer was lowest (4,882.91 baht head⁻¹), the calf fed with cow milk (8,197.86 baht head⁻¹) was higher than milk replacer but lower than buffalo milk (9,794.37 baht head⁻¹) ($p < 0.05$). In conclusion for this study, cow milk could be replaced for buffalo milk fed to the calves without any adverse affect to the calf on growth performance. Moreover, they could completely replace for the buffalo milk in order to reduce feed cost of weaned buffalo production.

Keywords: Buffalo calf, buffalo milk, cow milk, Mehsana buffalo, milk replacer