ABSTRACT

MOH. BASRI. Feed Preference and Nutrient Requirements of Mountain Anoa (Bubalus quarlesi Ouwens 1910) on the Domestication Condition. Supervised by SURYAHADI, HADI SUKADI ALIKODRA and TOTO TOHARMAT.

In Indonesia meat supply is much less than the demand. National meat production in 2006 was 2.070.234 ton/year (DJP 2006). On the other hand, the demand for meat was 2.957.477 ton/year. In Central Sulawesi, anoa has been utilized by the people around the forest as an alternative meat animal to meet their demand for meat. Therefore the anoa becomes an endanger species.

Mountain anoa has an average body weight of 40 kg and fresh feed intake of 7-10 kg/day/animal. The biological characteristics of anoa allow the anoa to be domesticated easily as a meat animal in the areas around the forest. However, there is not much study conducted in the nutrition aspect, consequently the limited information is available. Information of the anoa's habit in feed selection, their response on feed manipulation and nutrient requirements are necessary. The present experiment was conducted to study the feed preference, response on feed manipulation and nutrient requirements of the anoa.

Experiments were conducted in Palu, Province of Central Sulawesi. Digestal analysis method was used to study the kinds of forest plant consumed by anoa. Cafeteria system was used to obtain information related to dry matter, energy and protein intakes and feeding habit. Feeding trial was designed to study the effect of combination of pokæe fruits and spinach levels in feed on feed intake, weight gain (WG) and feed efficiency. The treatments were allocated in a 6 x 6 latin square design. Analysis of variance and Duncan's test were applied to analyze the data obtained. The following regression model : Nutrient intake = $b_1\text{BW}^{0.75} + b_2\text{BWG} + a$, was used to estimate the energy and protein requirements for maintenance and growth of anoa.

Anoa indicated feed preference from the highest to the lowest as follows: pokæe fruits (Ficus vasculosa Rump), pakis leaves (Scleria purpureascens), beringin shoots (Ficus sp.), knife grass (Panicum sp.) and kolonjono grass (Brachiaria mutica) which were in the range of 1-4; spinach (Ipomea aquatica Forrd), katimba shoots (Zingiber officianate Rose), banana leaves/shoots (Musa sp.), rock plant leaves and alang-alang leaves (Imperata cylindrica) which were in the range of 5-9. High dry matter intake (DMI) of 0.37-33.1 g/kg BW$^{0.75}$ in cafeteria system were met after offering the feed for 96 hours. Dry matter intake of Ficus vasculosa Rump (fruit), Zea mays (leaves), Scleria purpureascens, Ficus sp.(leaves), Brachiaria mutica and Ipomea aquatica Forrd were 29.1, 20.9, 16.5, 14.2, 7.6 and 4.8 g/kg BW$^{0.75}$, respectively. Feeding $R_{d(5.0/1.5)}$ diet resulted in the highest intake of dry matter, TDN, crude protein, Ca and P, crude fiber and weight gain of 1.29, 0.60, 0.17, 0.0124, 0.0103, 0.4580 and 0.516 kg/day/animal, respectively, and feed efficiency of 4.3%. The requirements of TDN, protein, Ca and P for maintenance of anoa were 22, 6.3, 0.457, and 0.427 g/kg W$^{0.75}$, and the requirement for growth were 1336.64, 399.90, 29.38 and 26.85 g/kg WG, respectively.

Keywords: anoa, feed preference, nutrient requirements.