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**RESPONSE OF GOAT KIDS TO PROVISION OF LOCALLY FORMULATED MILK REPLACERS**

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The use of milk replacers to substitute valuable whole milk for feeding goat kids is not widely practiced in Sri Lanka because of the scarcity and high price of imported milk replacers. This experiment was conducted to investigate the response of feed intake, body parameters, blood metabolites as indices of nutritional status, growth rate, and feed conversion efficiency of goat kids to provision of locally formulated milk replacers and to assess the cost effectiveness of substituting goat milk with milk replacers.

Twenty Saanen goat kids were divided into 4 groups (5 kids / group) balanced by body weight and age (35 d). Three groups were offered three locally formulated milk replacers consisting of coconut poonac, cheese whey, rice bran, fish meal, molasses and mineral mixture in different proportions to contain 23 - 25 % crude protein until weaned. The other group (control) was offered milk. All the kids were offered kikyu grass hay and water ad libitum, and the other management practices were maintained identical for the four groups throughout the experimental period. Measurements on feed intake (daily), body weight, body length, heart girth (weekly), and blood samples to determine blood metabolites (once every fortnight) were obtained from individual animals until they are weaned around 65 days of age once 9 kg body weight was attained. Representative samples of milk replacers, milk and hay were obtained periodically for proximate analysis. Data were subjected to analysis of variance procedures.

All the formulated milk replacers were superior in crude protein content (24-26%) to that of kikiyu hay (19%) and the concentrate mixture (22%) normally offered to the kids. Total dry matter intake of the treatment groups were superior to that of the control, while the kids that consumed milk replacer containing 10% cheese whey recorded the highest feed intake. Mean total body weight gain as well as blood parameters among the treatment groups were not significantly different while the feed conversion ratio was highest in the group consumed replacer containing no cheese whey. The cost of feeding goat kids was reduced by Rs. 348 to 380/= per kid, and an additional income of Rs 788/= per kid could be obtained through sale of saved milk without causing any adverse effect on growth performance by using milk replacers from 35 days of age to weaning around 65 days of age. These findings suggest that the locally formulated milk replacers tested in this experiment can be used successfully in place of milk for feeding goat kids from 35 days up to weaning around 65 days of age without any adverse effect on nutritional status, feed conversion efficiency, and growth performance while enhancing the profitability of rearing goat kids.