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RESEARCH ARTICLES

Effect of bypass protein supplementation to the dairy cattle in farmer management condition at Lamjung district, Nepal

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ABSTRACT

An experiment was carried out to identify the impacts of supplementing the different level of bypass protein on dairy cattle production by introducing the varied amount of rapeseed oil cake, in 2014 at Lamjung, milk production, and other output variables were recorded for 3 months period within 12 lactating cattle in farmer's management condition in completely randomized block design. Based on the hypothesis that dairy animals in farmer management condition were mostly getting undernourished, especially onprotein-based concentrates; an intervention was made by replacing rice and wheat bran (mixed in 1:1 ratio) with bypass protein in equal proportion via dried oil-seed cake (rapeseed cake) at control (T_0), T_1 (0.5 kg), T_2 (1kg) and T_3 (1.5) kg per day per animal, respectively. Experiment revealed that the total milk production (evening and morning) was statistically significant ($p<.001$) among the treatments within the intervened animals. Similarly, daily dry matter intake (DMI) was highly significant among the treatments ($p<0.001$). The average daily milk production is highly correlated (0.469) to the quantity of oilseed cake (up to 1.5 kg daily basis) intervened to the cattle. Moreover, seasonal feedstuffs were catalogued and feed samples were taken for chemical analysis. The milk production at T_3 was more economical than other treatment groups. Our results suggests that there is a need to be improved management in the feeding practices of the dairy cattle to increase the daily milk production level specially focusing on the protein requirement of dairy animals.

Key words: Oil seed cakes, protein supplement, milk production, cattle