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Farmer's Response to Rumen Fill Transfer Technique

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ABSTRACT: Under controlled environment, rumen fill transfer shows to improve rumen fermentation, survival rate and daily liveweight gain of ruminants fed low quality diets but this should be tested under rural condition. Four villages were selected in Lombok. Each village was represented by 15 mature Bali cows or the total of 60 cows belonged to 45 farmers. Appropriate combination of rumen fill suitable for rumen condition of Bali cows was selected by using the Balitnak Method developed by Winugroho et al (1993). The rumen fill was then sun-dried at 08.00 am to 14.00 pm for 4 days prior to be ground through aproximately 1 mm diameter screen. Approximately, 100 g dried and ground selected rumen fill was given to individual cows in the middle of dry season (November 1993). In order to rejection, the rumen fill was mixed with fresh cassava tubers or banana trunks prior to offering. Although, some tree legumes and corn stovers were supplemented but the diet was still rich in fibre content ie. typical feed during dry season. Farmer's response was taken in at the end of dry season or after about 3 months study period. Data were presented in form of percentages. Fresh buffalo rumen fill from Bogor was best combined for rumen environment of Bali cows. The dried rumen fill was 3 weeks old kept in aerobic under room temperature before being brought to Lombok and given to the animals. According to the farmers, 75% of the transferred cows showed improved cow appetite, 60% of them had better body condition, 90% of the cows had smoother faecal output. Thirty percent of the farmers suggest that the smell of the dried rumen fill should be overcomed. However, all farmers were willing to feed dried rumen fill for the next dry season.

Key Words: Farmer's Response, Rumen Fill Transfer, Bali Cows

Introduction

The lack of feed during dry season is believed to be the greatest constraint for low reproductive performance of Bali cattle in Eastern Part of Indonesia. Under controlled environment, rumen fill transfer shows to improve rumen fermentation, survival rate and daily liveweight gain of sheep and crossbred Ongole cattle fed low quality diet (Winugroho et al, 1994 a,b). Subsequent study demonstrated that activity of cellulolytic rumen microbes was remain after drying and storing under aerobic condition (Winugroho et al, 1994c). In this study, evaluation was observed under rural condition in one area where national Bali cattle stock is located.

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Materials and Methods

In Lombok island, four villages were selected. Each village was represented by 15 mature Bali cows or the total of 60 cows belonged to 45 farmers. The best combination of rumen fill suitable for rumen condition of Bali cows was obtained using the Balitnak Method developed by Winugroho et al (1993). The rumen fill was then oven-dried at 39^{o}C for 48 hours prior to be ground via about 1 mm diameter screen. Approximately 100 g dried and ground selected rumen fill was brought from Ciawi and given to individual cows in November 1993 (middle dry season). The rumen fill was mixed with fresh cassava tubers or banana trunks prior to offering. Although, some tree legumes and corn stovers were supplemented but the diet was mainly rich in fibre content ie. typical feed during dry season. Farmer's response was taken in at the end of dry season or about 3 months period. Data were presented in percentage.

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Results and Discussion

Rumen fill from buffalo fed road side grass (abatoir in Bogor, West Java) was identified as the best combination for the Bali cows. It was about 3 weeks before being offered to the cows in Lombok. From previous study, it was showed that cellulolytic activity was still remain although the rumen fill was kept in aerobic and room temperature for 35 days (Winugroho et al, 1994c). According to the farmers, 75% of the transferred cows showed improved cow appetite, 60% of them had better body condition, 90% of the cows had smoother faecal output. Thirty percent of the farmers suggest that the smell of the dried rumen fill should be overcomed. However, all farmers were willing to same dried rumen fill for the next dry season. It should be noted that the animal improvement to some extent, was likely confounded by feed supplement given.

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