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RESEARCH PAPER

Effect of feeding soybean straw in combinations with jowar stover on the growth performance of weaned Osmanabadi kids

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ABSTRACT

The study was conducted to evaluate the nutritional significance of different combinations of jowar stover, and soybean straw for growing kids. The eighteen weaned kids with similar age were exposed to three group of ration. The ration were T_0 = Jowar stover 60% + concentration 40%, T_2 group fed with jowar stover 30% + soybean straw 30% + concentration 40% and T_3 with 60% soybean straw + concentrate 40% on dry matter basis. During total experimental period of 63 days, the last seven days was the collection period. The results indicated that total body weight gain was significantly higher in T_2 group followed by T_1 and T_0, whereas, the differences among all the body measurements were found to be non-significant.

Key words : Soybean straw, Jowar stover, Osmanabadi kids

Soybean (*Glycine max*) crop is rich in carbohydrate, fat, protein, minerals and vitamin and therefore, can serve as gift to undernourished human population as well as livestock. It is leguminous plant and every part of this crop is useful to animals. Most of the crop residues are fibrous, of low energy and have very little protein and minerals. The feeding of straws in combination with concentrate mixture improves growth and performance of kids. Hence, the feeding of soybean straw with jowar straw and concentrate mixture has been proposed with an objective to improve weight gain and linear body measurements.

MATERIALS AND METHODS

Eighteen weaned Osmanabadi kids with similar age and body weights were selected for the experiment and randomly distributed into three groups, each group consisting of six kids. The groups (T_0) was control in which 60% jowar straw + 40% concentrate was fed. The group fed with 30% jowar straw + 30% soybean straw + 40% concentrate designated as treatment T_1 and with 60% soybean straw + 40% concentrate as T_2. The experiment was conducted in two phases for 63 days having 7 days as pre-experimental period and 28 days as experimental period including last 7 days as collection period in each phase.

Observations on body weight and other body measurements were recorded during experimental period. The data were analysed statistically by adopting Complete Randomized Design (CRD) as per procedure given by Federer (1967).

RESULTS AND DISCUSSION

Data regarding total gain in body weights and daily body weight gain of kids during the experimental period are presented in Table 1. The data indicated that difference were significantly higher in T_2 (3.06 kg and 48.57 g) followed by T_1 (2.51 kg and 39.84 g) and T_0 (1.98 kg and 31.42 g) group.

The significant difference among the body weight

Table 1 : Treatment effect on body weight gain

Treatments	Initial body weight (kg)	Final body weight (kg)	Total body weight (kg)	Daily body weight gain (kg)
T_0	9.60	11.58 [b]	1.98 [c]	31.42 [c]
T_1	9.00	11.51 [b]	2.51 [b]	39.84 [b]
T_2	9.30	12.36 [a]	3.06 [a]	48.57 [a]
S.E. $\pm$	0.086	0.100	0.112	0.317
C.D. (P=0.05)	NS	0.301	0.339	0.956

NS=Non significant