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SHORT COMMUNICATION

NUTRIENT UTILIZATION OF PEA (*Pisum sativum*) HAULM AND NEVARO (*Ficus hookeri*) LEAVES BASED DIETS IN RABBITS

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ABSTRACT

Twelve Soviet Chinchilla rabbits randomly distributed into 2 groups of 6 each were fed either. Nevaro leaves (G1) or pea haulm (G2) with concentrate in a ratio of 50:50. Though intake of nutrients was similar between diets, the digestibility was significantly (P<0.05) higher in animals fed pea haulm. It was concluded that nutrient utilization in the diet containing pea haulm was better than nevaro leaves.

Key words: Pea haulm, Ficus hookerii leaves, Nutrient utilization, Rabbit

Availability of feeds and fodder is the main constraint in rabbit rearing, specially during lean period (Nov.-April). During this period farmers of the region feed their livestock with leaves of various *Ficus species*: but the availability of these leaves is also limited. Pea haulm is the leaf and stem portion left after harvesting the pods and yield of thus is about 8-9t/ha (Subba, 1984). It is available during the lean period. The present experiment was conducted to study the nutrient utilization in rabbits fed pea haulm or nevaro leaves based diet.

Twelve Soviet Chinchilla rabbits of 6 months age (av. body wt. 2.16+0.10kg) were randomly allocated into 2 groups of 6 each (1M±5F). All the animals were individually housed in wire cages with separate arrangements for feeding and faces collection. Roughage: concentrate was 50:50 in both the groups. However, roughage source was nevaro leaves in group 1, whereas pea haulm in group 2. Concentrate mixture (maize 45 parts, mustard cake 30 parts, wheat bran 22 parts, mineral mixture 2 parts and common salt 1 part) in mash form was offered in the morning and roughage during afternoon. Fresh, clean drinking water was provided free choice to the rabbits. After a preliminary feeding of 21d, digestion trial of 5 d duration was conducted. The samples of feed, refusals and faeces were analyzed for proximate principles (AOAC,1984). Data obtained was statistically analyzed by using Students t-test (Snedecor and Cochran, 1989).

Table 1 Chemical composition of feeds and fodders (% DM)

Parameter	Concentrate	Nevaro Leaves	Pea haulm
DM	89.89	31.07	20.43
CP	18.41	12.20	16.50
CF	5.41	21.43	29.45
EE	4.39	2.41	2.82
NFE	62.47	54.13	41.11
Ash	9.84	9.63	10.12

Table 2 Feed consumption and nutrient utilization in rabbits fed on either nevaro leaves or pea haulm based diets

Parameter	Group 1	Group 2	CD
Av. Body weight (kg)	2.21±0.27	2.13±0.19	---
Dry mattery intake (g/d)			
Concentrate	67.19±8.38	54.15±4.78	---
Roughage	47.33±4.03	50.79±2.99	---
Total	114.53±7.25	104.94±5.94	---
DMI % of B.wt.	5.25±0.36	4.96±0.30	---
DMI/kg $W^{0.75}$	63.75±4.05	59.77±3.41	---
Nutrient digestibility (%)			
DM	60.21^{a}±2.55	66.60^{b}±1.69	6.40*
OM	67.24^{a}±2.32	72.19^{b}±1.07	4.88*
CP	63.13^{a}±2.24	70.38^{b}±2.30	7.07*
CF	19.63±2.90	23.13±3.43	---
EE	62.36±1.38	68.98±2.39	---
NFE	76.99^{a}±2.31	89.05^{b}±2.06	6.67**
Nutrient intake g/kg $W^{0.75}$			
DCP	6.11^{a}±0.27	7.52^{b}±0.45	1.19*
TDN	40.42±1.50	41.42±2.29	---
Nutritive value (%)			
DCP	9.63^{a}±0.32	12.61^{b}±0.64	0.96*
TDN	63.75^{a}±2.11	68.94±1.03	3.28*

*Values bearing different superscript a, b in a row differ significantly * P<0.05 **P<0.01*

Chemical composition of feeds and fodder is presented in Table 1. Pea haulm contained more CP and CF in comparison to nevaro leaves, similar observations on composition have been reported earlier (Gupta,1992) . DM intake (DMI) was similar among the diets (Table 2), they consumed about 5% of their body weight in both the groups. However, DMI was lower than those observed in growing rabbits fed nevaro leaves or green pea based diet (Gupta, 1992). Digestibility of nutrients (DM, OM, CP, NFE) were significantly ($P<0.05$) higher with diet containing pea haulm. Better nutrient utilization in green pea has been reported earlier (Gupta, 1992). Digestibility of CF was very low in both the groups. Overall, digestible crude protein (DCP) and total digestible nutrients (TDN) contents were significantly ($P<0.05$) higher in pea haulm fed group due to increase in digestibility of nutrients, indicating superiority of pea haulm on nevaro leaves. It is evident that with diet containing 50% roughages nutrient utilization from pea haulm was better than nevaro leaves, thus, pea haulm can be used solely upto 50% in the rabbit diet compared to nevaro leaves.

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