

EVALUATION OF ENSILED FORE STOMACH DIGESTA (FSD) WITH COWPEA HAY ON THE PERFORMANCE OF FATTENING SHEEP IN A SEMI-ARID ENVIRONMENT

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ABSTRACT

The study was carried out in two phases at Usmanu Danfodiyo University Livestock Teaching and Research Farm Sokoto, to evaluate ensiled FSD with cowpea hay on the performance of fattening Uda sheep. In the first phase, silage was prepared in a period of 21 days from 70% FSD and 30% cowpea hay mixture at varying moisture levels (30, 40, 50 and 60% i.e. 30kg, 40kg, 50kg and 60kg water/ 100kg FSD-Cowpea hay mixture) designated as treatments A, B, C and D respectively. In the second phase, Eighty four (84) days feeding and Fourteen (14) days digestibility trials, was conducted using sixteen (16) fattening Uda rams in a completely randomized experimental design (CRD). The results indicated that pH content of the ensiled materials decreased from 4.75 (for treatment A) to 4.35 (for treatment D), while the colour (pale yellow) and aroma (sweet) remain the same for all the treatments after fermentation period of 21 days. Chemical composition of the ensiled material indicates that crude Protein (CP) content was lower (8.66%) for treatment A and higher (10.50%) for treatment D while Crude fiber (CF) content decreased from 27% for treatment A to 25% for treatment D. Total feed intake (TFI) and average daily gain (ADG), dry matter (DM) and crude protein (CP) digestibility of the animals slightly increased with increase in level of silage moisture up to 50% (50kg/100kg FSD), there after it declined ($P>0.05$). However, Cost of feed per kg live weight gain was lower for animals fed silage with highest moisture content (treatment D) ($P<0.05$). It was concluded that ensiling rumen content with cowpea hay at 60% moisture will significantly reduce cost of sheep production.

Keywords: Rumen content, Uda rams, acceptability.