

## EFFECT OF REPLACING MAIZE SILAGE WITH SWEET POTATO VINES SILAGE ON PRODUCTIVE PERFORMANCE OF LAMBS

A.A.H. EL-Tahan<sup>(1)</sup>, T.F. Mohammadi<sup>(2)</sup> and A.A. Bakr<sup>(2)</sup>

1- Animal production Research, Institute, Ministry of Agriculture, Dokki, Giza, Egypt.

2- Regional Center for Food and Feed, Agricultural Research Center, Giza, Egypt.

### ABSTRACT

This study was carried out at the Regional Center for Food and Feed and El-Gemiza Experimental Station, Animal Production Research Institute, Ministry of Agriculture, Egypt. Eighteen Rahmani lambs averaged  $21 \pm 1$  kg body weight were used. The study carried out to evaluate replacing different levels of sweet potato vines silage (SPVS) with maize silage (MS) in lambs' rations. Lambs assigned to 3 similar groups (6 each). Silage quality, nutrients digestibility, nutritive values and some rumen parameters were measured. Three adult rams assigned randomly in each group whom averaged 54 Kg body weight. The experimental rations composed of; T<sub>1</sub> (control) ) 100 % MS according to NRC (1986) allowances, T<sub>2</sub>; 75 % MS+ 25 % SPVS and T<sub>3</sub>; 50 % MS + 50 % SPVS.

The results revealed that, SPVS characterized with its high content of CP and NFE and low content of CF and Ash than MS. MS silage had higher values of ammonia – N; acetic acid; butyric acid and lactic acid but SPVS had higher value of total acidity. The daily DM intake decreased with increasing SPVS ratio in experimental rations without any differences among all treatments. Digestibilities of nutrients and nutritive values as TDN and DCP increased ( $P < 0.05$ ) with increasing SPVS ratio in the experimental rations.

The live body weight gain (LBW) of lambs fed ration 2 through the period from 26 to 36 weeks of age was significantly ( $P < 0.05$ ) higher than those of T<sub>1</sub> and T<sub>3</sub>. The feed conversion (feed/gain) for lambs fed T<sub>2</sub> ration had the best values ( $P < 0.05$ ).

This investigation demonstrate that SPVS was a good substitution for MS. Feeding SPVS with MS up to 50 % in lambs rations improve digestibilities of nutrients, nutritive values and daily feed intake .

**Keywords** :maize silage, sweet potato vines silage, lambs, digestibility.