## PERFORMANCE OF GROWING LAMBS FED TWO CUTS OF SOME SUMMER GREEN FORAGE MIXTURES OF LEGUMES AND GRASSES

Abd El-Hamid. A. A., Fathia, A. Ibrahim, M. E. Ahmed and E. S. Soliman Animal Production Research Institute, Agricultural Research Center (ARC), Egypt

## ABSTRACT

The objective of this work was to study cultivation and utilization of three intercropped green forage mixtures in feeding growing lambs. Eighteen lambs divided into 3 groups (6 each) and about 20.71 kg live body weight fed 1% of BW concentrate feed mixture (CFM) + green forage mixtures offered *ad lib* as Sesbania-Sudan grass (SS) or Cowpea-Millet (CM) or Cowpea-Millet **x** Napier grass hybrid (CMN). Three digestibility trials were carried out to evaluate the three rations using 3 rams for each. Rumen and blood parameters were measured. Growth performance and feed conversion were determined.

The obtained results showed that Sesbania-Sudan grass mixture had higher DM, CP and NFE % and lower CF and Ash% than Cowpea-Millet or Cowpea-Millet x Napier grass hybrid mixtures. The DM intake of the three groups (SS, CM and CMN) as  $g/kg W^{0.75}$  or % BW were nearly similar. The digestion coefficients of DM, OM, EE and NFE for SS were significantly higher than for CM and CMN in the  $1^{st}$  cut. In the  $2^{nd}$  cut, the digestion coefficients of OM, CP and NFE in SS were significantly higher than CM and CMN. The TDN and DCP of SS were significantly higher than CM and CMN in the two cuts. The differences in ruminal pH values among the three groups were not significant. Ruminal ammonia-N was significantly higher and total VFA,s was significantly lower in SS group than CM and CMN groups, while the difference between CM and CMN were not significant. The maximum values of ammonia-N and total VFA,s were estimated and shown 4 hrs post feeding. No significant differences among the three albumin, globulin, urea-N, creatinine, groups for serum total protein, glucose. Alkalinephosphatase (ALP), GOT and GPT. Average total gain and daily body gain of lambs fed SS were significantly higher than those fed CM or CMN. The feed conversion as kg DM/kg gain of SS group was better than CM-or CMN- groups. It could be concluded that the group fed Sesbania-Sudan grass mixture (SS) was better than other groups.

*Key words:* Sesbania, Cowpea, Sudan grass, Millet, Millet x Napier grass hybrid, Digestibility, Rumen, Blood, daily body gain.