APPENDIX

Operative Procedure:

The surgical procedure used to introduce a cannula into the rumen of the animal in this study was performed as described by (Brown *et al.*, 1968).

The operation was carried out in standing position. A tranquilizer (0.25ml xylasine) was first administrated intra muscularly. Arumenotomy was then carried out using local infiltration an aesthesia (Lignocaine hydrochloride with adrenaline). Before the rumen cannula was brought to the exterior through a stab wound a rigid polythene flange was sutured by cat gut into the wall of the rumen around the cannula. This prevents subsequent leakage of rumen contents and even rejection of the cannula. Than the incision in the rumen wall well infused with antibiotic and sutured by silk.

In the recovery, no feed was offered for the first 24hours after surgery. There after, initially small but increasing amounts of a good quality feed were given. Daily intra muscular injections of an antibiotic were given for 5days.

Cannula Preparation:

The cannula was made from local material PVC tube. The diameter 2inches, the PVC tube was prepared with a flange by making cuts of up to 15cm in length at four intervals around the circumference of the tube and heated to make the plastic pliable and the flanges were filed so that there were no rough edges and enclosed in rubber tubing.