S U M M A R Y.

A medium term fertilizer experiment in the form of a 2^3 factorial design, was laid down at the College New Farm. The aim was to investigate the effect of heavy applications of nitrogen on the yield of Pangola grass (Digitaria decumbens Stent), under farming conditions. Basal applications of phosphate and potash were included and the nitrogen application was split into three dressings, intended to increase the herbage yields in the dry season and after the peak flushes. Strip grazing with cattle was used. Yield estimates were assessed by sampling the plots immediately before the cattle went in to graze. An electrical Tarpen cutter was used to clip the sampling areas.

Analysis of the results from the first six months of running the experiment proved non-significant, suggesting the need for further replications. Very little difference in yield showed up between the treatments. The crude protein content of Pangola grass rose with increasing rates of nitrogen fertilization. A rise in soil acidity and leaf scorch resulted from the use of heavy applications of Sulphate of Ammonia. Experience gained in sampling during this initial period, stressed the importance of thorough cattle management and illustrated the wide variation in grass growth within the plots resulting from grazing.