

## Effects of Feed Forms on Growth Pattern, Behavioural Responses and Faecal Microbial Load of Pigs Fed Diets Supplemented with *Saccaromyces cereviseae* Probiotics

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**Abstract :** In forty nine (49) days, twenty four (24) growing pigs (Landrace x Large white) with an average weight of  $17 \pm 2.1$ kg were allocated to four experimental treatments T1 (dry mash without probiotics), T2 (wet feed without probiotics), T3 (dry mash + *Saccaromyces cereviseae* probiotics) and T4 (wet feed + *Saccaromyces cereviseae* probiotics) which were replicated three times with two pigs per replicate in a completely randomised design. The basal feed (dry feed) was formulated to meet the nutritional requirement of the animal with crude protein of 18.00% and metabolisable energy of 2784.00kcal/kgME. Growth pattern, faecal microbial load and behavioural activities (eating, drinking, physical pen interaction and frequency of visiting the drinking troughs) were accessed. Pigs fed dry mash without probiotics (T1) had the highest daily feed intake among the experimental animals (1.10kg) while pigs on supplemented diets (T3 and T4) had an average daily feed intake of 0.95kg. However, the feed conversion ratio was significantly ( $p < 0.05$ ) affected with pigs on T3 having least value of 6.26 compared those on T4 (wet feed + *Saccaromyces cereviseae*) with means of 7.41. Total organism counts varied significantly ( $p < 0.05$ ) with pigs on T1, T2, T3 and T4 with mean values of  $179.50 \times 10^6$ cfu;  $132.00 \times 10^6$ cfu;  $32.00 \times 10^6$ cfu and  $64.50 \times 10^6$ cfu respectively. Coliform count was also significantly ( $p < 0.05$ ) different among the treatments with corresponding values of  $117.50 \times 10^6$ cfu;  $49.00 \times 10^6$ cfu,  $8.00 \times 10^6$ cfu for pigs in T1, T2 and T4 respectively. The faecal *Saccaromyces cereviseae* was significantly lower in pigs fed supplemented diets compared to their counterparts on unsupplemented diets. This could be due to the inability of yeast organisms to be voided easily through faeces. The pigs in T1 spent the most time eating (7.88%) while their counterparts on T3 spent the least time eating. The corresponding physical pen interaction times expressed in percentage of a day for pigs in T1, T2, T3 and T4 are 6.22%, 5.92%, 4.04% and 4.80% respectively. These behavioural responses exhibited by these pigs (T3) showed that little amount of dry feed supplemented with probiotics is needed for better performance. The water intake increases as a result of the dryness of the feed with consequent decrease in pen interaction and more time was spent resting than engaging in other possible vice-habit like fighting or tail biting. Pigs fed dry feed (T3) which was supplemented with *Saccaromyces cereviseae* probiotics had a better overall performance, least faecal microbial load than wet fed pigs either supplemented with *Saccaromyces cereviseae* or non-supplemented.

**Keywords :** behaviour, feed forms, feed utilization, growth, microbial

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