

THE GROWTH PERFORMANCE AND BEHAVIOUR OF PIGS RAISED IN CONVENTIONAL AND ALTERNATIVE SYSTEMS

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Summary. The growth performance and behaviour of intensively raised pigs were compared under conventional (indoor) and alternative (free-range) rearing systems. Three analogous by parentage, age, weight, condition score and gender Norwegian Landrace and Norwegian Landrace x Pietrain crossbred pig groups of 14 animals each were used in the study. The pigs were housed in either indoor pens (Indoor group) or outdoor enclosures (Outdoor 1 and Outdoor 2 groups). The pigs in all groups were given compound feed *ad libitum*. The diet of Outdoor 2 group pigs was additionally supplemented with red clover grass. The rate of stocking in Indoor group was 7 pigs per 9.37 m² area pens. Pigs in Outdoor groups were kept in electric wire enclosures of 900 m² area each.

The study indicated that the pigs in Outdoor 1 group gained daily on 2.6% less and pigs in Outdoor 2 group gained daily on 5.1% more weight compared to pigs in Indoor group, but the differences were statistically not significant.

The pigs in Outdoor groups consumed daily on 5.6% and 5.2% compound feed less and compound feed consumption per kg gain was on 4.5% and 11.5% lower compared to pigs in Indoor group. In addition, the pigs in Outdoor 2 group used on 7.3% lower amount of compound feed per kg gain compared to pigs in Outdoor 1 group.

The behavioural studies indicated that the pigs in Outdoor groups daily spent more time for rooting, respectively, 100.9 min (461.6%, P=0.014) and 60.9 min (318.3%, P=0.017). In general, the pigs in Outdoor groups were on 278.0% (P=0.005) and 219.2% (P=0.010) more active compared to pigs in Indoor group. The pigs in Outdoor 2 group spent less time for environmental exploration (rooting behaviour) in comparison to pigs in Outdoor 1 group, but the differences were statistically not significant.

Keywords: indoor, outdoor, growth rate, behaviour, red clover.