

# Effects of large group size on productivity of grower-finisher pigs

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The performances of grower-finisher pigs in larger group sizes are unclear. In the present study we examined the effects of forming grower-finisher pigs into a larger group on pig productivity. Groups of 18 and 108 pigs per pen were studied. A total of eight 11-week trials were conducted. In each trial four pens of 18 pigs (small groups) and two pens of 108 pigs (large groups) were evaluated. An equal number of barrows and gilts were used in each group. Initial body weight and the body weight variation (CV) were 32 kg and 14.8% and 31.6 kg and 15.7% for small and large groups respectively. Multi space wet/dry feeders supplied feed and water to the animals, with a pig to feeder space ratio of 9 to 1. The floor space per pig was constant between two group sizes. Average daily gain (ADG), pig mortality and morbidity and body weight variation within the group at the end of each trial were determined. Average daily feed intakes (ADFI) were recorded for four trials during two periods (from week 2 to 5 and week 7 to 11). The ADG for the entire study period was significantly higher ( $P<0.05$ ) for the pigs in smaller groups (971 g/d) compared to the larger groups (955 g/d). The pigs in smaller groups compared to larger groups had a higher ( $P<0.05$ ) ADG during the first two weeks post-regrouping (919 vs. 833 g/d, for small and large groups, respectively) but no further effects were observed. No difference was found in pig mortality and morbidity between two groups (8.4% vs. 6.2% for small and large groups, respectively). At the end of the study period pig body weight variation (CV) was similar between the two group sizes (9.6 vs. 10.3 for small and large groups, respectively). ADFI and efficiency were also similar between the two group sizes for the two-recorded periods.

## **Implications:**

Although pigs in larger groups tend to have a slight reduction in overall average daily gain, in general, the performance of the pigs in larger groups was not inferior to the smaller group size evaluated in this study.