

# Pre-planned segregation: The effect of grouping by weight at weaning on variability in body weight at nursery exit

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Variability in pig growth is emerging as a critical issue for pork producers. It increases the cost of production due to sort losses at marketing and reduced barn utilization. Variation will always exist within a population, and in a high-health, well-managed herd, efforts to reduce variability may be futile; the variability therefore, must be managed. Pre-planned segregation, the separation of the total population of pigs into sub-groups that are expected to differ in growth, is one option available to producers for managing variability to improve barn utilization and ease the management sort losses

The objective of this experiment was to determine if uniformity of growth of the total population could be improved by segregating the lightweight pigs at weaning. All available pigs from 8 weeks of farrowings (n=2080; 16 pens per week) were used. Three sorting regimes were compared; unsorted (UN), 50:50 sort (S50, segregating the heavier half of the pigs from the lighter half), and 12:88 sort (S12, segregating the lightest 12% from the heavier 88%). The pigs were individually identified and weighed at weaning (d0) and on days 8, 18, 28, 39 and 50 post-weaning. Initial ( $5.95 \pm 0.12$ , mean  $\pm$  SE) and final ( $31.47 \pm 0.33$ ) BW were similar ( $P>0.05$ ) regardless of sorting regime. ADG was not improved in the overall population by segregation ( $P>0.05$ ). The coefficient of variation (CV) averaged 19.94% on d0 and 13.95% on d50 and was unaffected in the overall population by sorting at weaning ( $P>0.05$ ). The CV of the 12<sup>th</sup> (11.8%) or the 50<sup>th</sup> (12.5%) percentile at d50 was similar ( $P>0.05$ ) regardless of whether 0%, 12% or 50% of the lightest pigs had been physically separated at weaning. The variability in the BW of the remaining pigs was not increased by the removal of a light or heavy subset.

## **Implications:**

Sorting and grouping of pigs into groups which are expected to differ in growth is one tool available to producers to improve overall barn utilization.