

INFORMATION OF AND-NUTRITION VETERINARY TECHNICAL SERVICES

June 2020

PIGLETS: THE IMPORTANCE OF WEIGHT AT WEANING AND GROWTH IN THE FIRST WEEK IN THE SUBSEQUENT RESULTS.

We have reviewed some articles related to this interesting topic, and we offer our conclusions.

Our summary and recommendations in order of priority COST / BENEFIT:

- 1- You have to invest to maximize all that you can the weight at weaning (sow's feed quality, manage the feeding of the sow in lactation, early start of the feeding of the piglets in starter, etc). We can help with PAPIPIG, SUMMER SOW and MASTER FIBER 67.
- 2- It is interesting to increase the weight gain in the first week post-weaning, focusing the investment especially on the smallest piglets (PAPIPIG, ZINCOLAC, and OTHER ADDITIVES)

ARTICLES

Farm (5,000 sows) in Brazil, a study was carried out with 1,602 piglets, weaned between 19 and 21 days of age (in 3 successive batches). Piglets were first separated at weaning based on their weight (WW), into three groups (small, medium, and large), and then separated again based on their weight gain in the first week after weaning (ADG 1-7).

The following was verified:

- 1- Weight weaning (WW) does not influence the average daily gain in the first week post- weaning (ADG 1-7).
- 2- Pigs with higher WW, have higher total ADG in nursery period.
- 3- The combination of higher WW and higher ADG 1-7, improves the results (weight gain) in total nursery period.

In the discussion of the experiment and reviewing bibliography about it, it is mentioned that the increase in weaning weight (WW) has more effect, more impact, in the subsequent results on the nursery (even in the age to reach the weight at the slaughterhouse) that different post-weaning management and feeding strategies.

Article title: "Evaluating the impact of weaning weight and growth rate during the first week post weaning on overall nursery performance"

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Publicado en la American Association of Swine Veterinarians

Bibliography:

Wolter BF, Ellis M, Corrigan BP, Dedecker JM, Curtis SE, Parr EN, Webel WM. Impact of early postweaning growth rate as affected by diet complexity and space allocation on subsequent growth performance of pigs in a wean-to-finish production system. *J Anim Sci.* 2003;81:353-359.

Wolter B, Ellis M. The effects of weaning weight and rate of growth immediately after weaning on subsequent pig growth performance and carcass characteristics. *Can J Anim Sci.* 2001;81:363-369.

Mahan DC, Lepine AJ. Effect of pig weaning weight and associated nursery feeding programs on subsequent performance to 105 kilograms body weight. *J Anim Sci.* 1991;69:1370-1378.

Mahan DC, Cromwell GL, Ewan RC, Hamilton CR, Yen JT. Evaluation of the feeding duration of a phase 1 nursery diet to three-week-old pigs of two weaning weights. *J Anim Sci.* 1998;76:578-583.

Collins CL, Pluske JR, Morrison RS, McDonald TN, Smits RJ, Henman DJ, Stensand I, Dunshea FR. Post-weaning and whole-of-life performance of pigs is determined by live weight at weaning and the complexity of the diet fed after weaning. *Anim Nutr.* 2017;3:372-379.

Post-weaning and whole-of-life performance of pigs is determined by live weight at weaning and the complexity of the diet fed after weaning

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The production performance and financial outcomes associated with weaner diet complexity for pigs of different weight classes at weaning were examined in this experiment. A total of 720 weaner pigs (360 entire males and 360 females) were selected at weaning (27 ± 3 d) and allocated to pens of 10 based on individual weaning weight (light weaning weight: pigs below 6.5 kg; medium weaning weight: 6.5 to 8 kg; heavy weaning weight: above 8.5 kg). Pens were then allocated in a $3 \times 2 \times 2$ factorial arrangement of treatments with the respective factors being weaning weight (heavy, medium and light; H, M and L, respectively), weaner diet complexity (high complexity/cost, HC; low complexity/cost, LC), and gender (male and female). Common diets were fed to both treatment groups during the final 4 weeks of the weaner period (a period of 39 days). Weaning weight had a profound influence on lifetime growth performance and weight at 123 d of age, with H pigs at weaning increasing their weight advantage over the M and L pigs (101.3, 97.1, 89.6 kg respectively, $P < 0.001$). Cost-benefit analyses suggested there was a minimal benefit in terms of cost per unit live weight gain over lifetime when pigs were offered a HC feeding program to L, with a lower feed cost/kg gain. The results from this investigation confirm the impact of weaning weight on lifetime growth performance, and suggest that a HC feeding program should be focused on L weaner pigs (i.e., weaning weight less than 6.5 kg at 27 d of age) in order to maximize financial returns.