

KALINAT Approach – Hyperprolific Sows

Point of production: Sows

Country of origin: France



The increase in pigs born per sow (Hyperprolific sows) has caused various production issues relating to ensuring that the piglets have the best chance of survival and in turn being a profitable animal.

The body condition (BCS) of the sow has been shown through substantial research to directly impact the survivability and variability of the litter of piglets, i.e. a sow with a good BCS entering subsequent lactations provides good litters of piglets and those do not have a good BCS do not.

The solution – Best practice



Farmer weighs all litters at birth during the “care” for piglets.



Another example of a piglet care trolley with built-in scale for litter weighing.

Weighing of litters at birth is integrated into the usual care practices and does not take more time, except the notation of the weight on the sow card. The farmer also identifies by colour pencil the smallest piglets to reinforce their monitoring during the lactation period.

For both sow prolificacy (pigs born per litter) and parity, an average piglet weight to target is calculated in order to guarantee the maximum survival of piglets. This target average weight comes from a huge database of farmers, working with Cooperative Eureden, who have weighed all the piglets at birth for several years. The farmer records the piglet’s average birth weight of each sow and calculates the ratio between this value and a target weight based on best practice. This ratio is called the Kalinat index. A Kalinat index over 1 is an indicator of a good quality birth piglet. The farmer had some sows (24%) with a bad Kalinat index, so after weaning he gathered these sows and increased the quantity of feed during gestating period and until birth.

Points to consider and additional information

This use of data to identify where processes need to be controlled to make marginal gains in manufacturing is often termed ‘continuous improvement’. The methodologies identified in programmes such as lean management and Six Sigma, integrated on pig farms offer opportunities to reduce the costs of production substantially.



Cost/Benefit analysis

Costs:

For someone not already using the practice, suitable weighing systems at birth that allow weights to be gathered as part of routine birth management tasks would need to be purchased - approx. 10,000 euros

Benefits:

- 180g increase in the average birth weight of piglets from sows with a low Kalinat index
- Reduction of the rate of losses on liveborns by 2.6%
- Proportion of sows with a low Kalinat index decreased from 24% to 19%
- An increase of 1 pig produced / sow / year, i.e. a positive change in gross margin of 24,000 euros at the farm level (360 sows present)

(Changes between 2017 and 2019 data).

Based on these assumptions variable production costs after implementation of best-practice decreased by 2.3% per piglet, mainly due to the higher piglet production per sow per year. Decrease was also observed in the case of fixed costs by 2.8% per piglet. As a result, the total costs were lower by 2.4%.

Further research & Project links

<https://eupig.eu/>

Link to technical report

Contact RPIG (France):

Fabien Verliat

