



Improving Sow Retention Rates: Focus on Maternal Robustness and Longevity

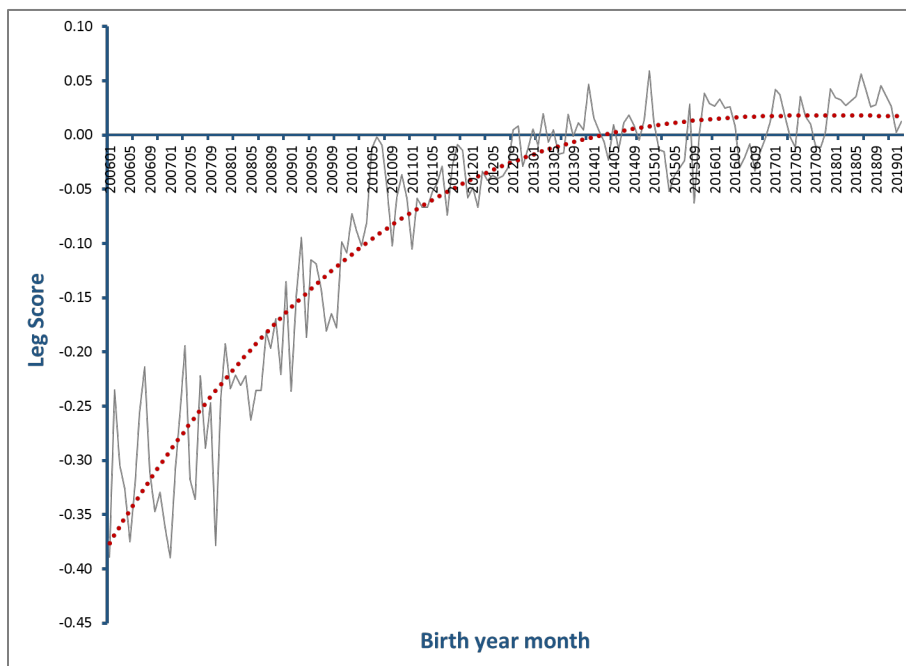
Four steps to improve sow retention

First of a two-part series on sow retention

Sow robustness has been a long-term selection goal in PIC’s genetic improvement program. Our effort to influence sow retention rates began decades ago with phenotypic selection of feet and leg quality and structure.

Today, PIC’s key selection criteria are feet and leg quality and structure of the animal. Every gilt and boar at our elite genetic production farms go through performance testing and all are scored on their feet and leg quality. An undesirable score means the animals won’t be selected and won’t have offspring. If the boar or gilt has a good genetic index but bad feet and legs, it won’t be selected as parent of the next generation. The result of this selection and testing strategy is an improved genetic trend for feet and leg score (Figure 1).

Figure 1: Genetic improvement trend for feet and leg score at PIC Elite Farms



Source: PIC Global Product Development, unpublished



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In addition, boar studs housing elite maternal great grandparent (GGP) boars are audited by specialists from our Supply Chain team twice annually. The audit catches structural issues that may develop as the boar grows out and turns older. If an issue is identified, the boar is culled. This action reduces potential structural issues being disseminated in future offspring.

Four steps to improve sow retention rates

Improving sow retention through genetic selection is one part of the solution, but environmental factors have a large impact on sow retention rates as well. Working with different farms and systems across the globe, the PIC Technical Services team has identified four steps to help uncover and address sow retention rate challenges.

1. Know your numbers

Reality check. Do you know how your farm measures up to other farms in the same company, region or globally in terms of sow retention rate? PIC uses several indicators (shown below in Table 1) to evaluate retention rate. These indicators help describe the situation, define how quick the interventions should be implemented, and guide efforts and resources for improvement.

Table 1: Intervention levels associated to retention rate

Indicator	Intervention level
Average age at removal	≤ Parity 4
Annual replacement rate	≤ 45% or ≥ 55%
Annual sow mortality (death + euthanasia)	≥ 9%
Annual culling rate	≤ 36% or ≥ 46%
Gilt utilization (mated vs. entered as selects)	≤ 90%
Gilt retention (sows making it to P3)	≤ 70%

2. Complete a farm/system review

Looking to improve or challenge the status quo? The next step is a farm or system review. Enlist the PIC Technical Services team to help. They can review processes, methods and practices that could be associated with low sow retention rate.

A fundamental part of the farm/system review is health diagnostics. Reliable health diagnostics allow you to accurately identify and address underlying health issues impacting retention rates. PIC’s Health Assurance team can help you find and design the most cost-efficient solution or define mitigation strategies.

3. Analyze and find opportunities

Once the review is complete, analyze the information to find opportunities. For example, if your farm has high sow mortality, there are multiple factors that could be causing the issue – culling rate,



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farrowing rate and young parity sow retention rates. Understanding how all the factors interact should be analyzed and understood to identify the root cause.

4. Develop an action plan

The next step is creating an action plan. The action plan should include the corrective or new processes to be implemented and how to measure and assess those changes. Every action plan should include staff training on new protocols and processes. This can be a challenging undertaking with high staff turnover and daily tasks. PIC's Technical Services team understands and can help develop training materials and train farm staff.

To evaluate and improve your sow retention, contact your PIC account team today. Watch your inbox for part two of the series on sow retention.