

The hidden losses associated with sow replacement

Early sow replacement could cause swine producers to lose up to 65€ per sow, and they don't even know it

Production efficiency is the goal of any swine producer. And producers do a very good job of meeting the needs of the animals while maximizing a farm's productivity. But there are hidden losses in many swine production facilities that lurk in the shadows and could be causing producers to lose up to 65€ per sow in yearly income. Often unnoticed, these additional losses take money directly from the profits. Fortunately, there are solutions to plug this leak.

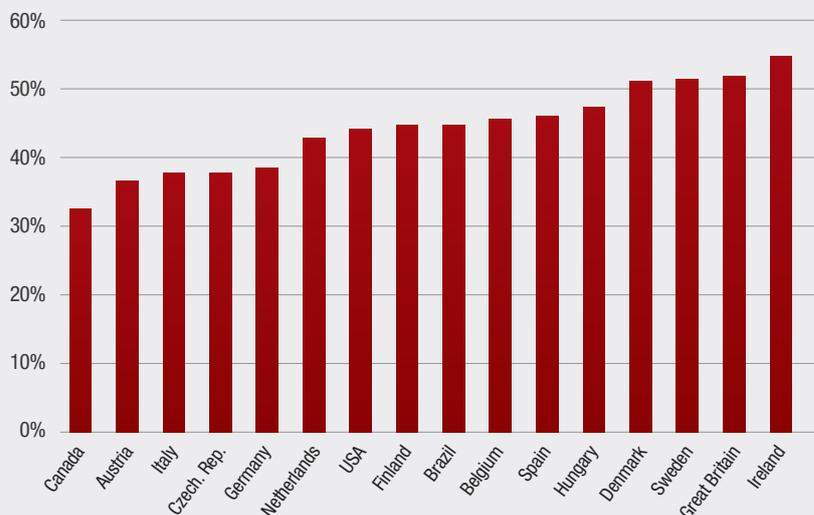
Understanding the loss

To understand these hidden losses, we need to identify where they occur in the production cycle. The replacement of sows in swine production is highly variable from farm to farm. In Europe, the replacement rate can vary from 35 percent to 55 percent. This creates some important issues. Not replacing enough sows means too many old sows remain in the herd and genetic improvement is not achieved, and overall herd performance is impacted. However, replacing too many sows can create impaired immunity, lower productivity and even higher replacement. The key is to find the right balance.

A gilt's direct costs (rearing, breeding, vaccination, etc.) is estimated at 550€. That entire cost is incurred if the replacement sow dies, while approximately 150€ can be recovered if the replacement sow is sent to slaughter. So for example, replacing 10 percent more sows per year than necessary has a net cost of 40€ per sow per year. For a 1,000-sow farming operation, that's 40,000€ per year. In principle, this is not seen as a direct loss, but it is a loss of earning opportunities.

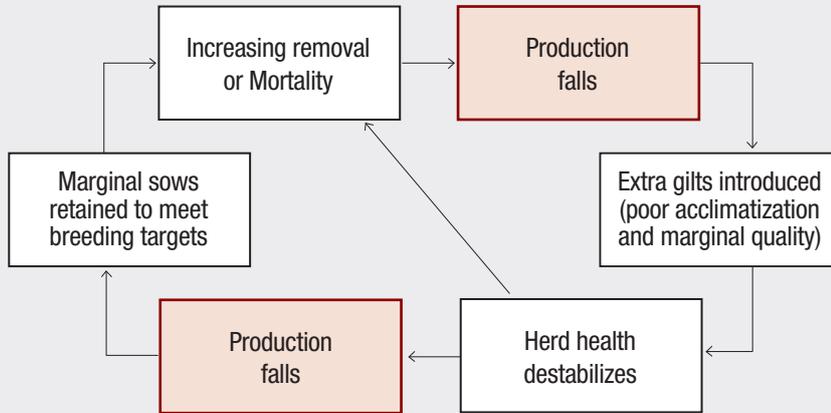


Different Replacement Rates Among Countries



Source: InterPIG, year 2016

Cycle of Rising Sow Removal & Mortality



Jerome Geiger, PIC (modified from)



Replacing sows too early can also have a direct impact on profit from the progeny. Mortality is higher for gilt progeny, and daily gain is lower compared to the progeny of older sows. One study showed that you can sell up to 3 slaughter pigs more from an older sow due to the lower mortality rates. If the gross margin per slaughter pig is 50€, the value of progeny for P1 (1st parity) sows is up to 150€ less than from an older sow.

We also must take into account that the growth of progeny for P1 is lower and carcass weight can be 4,5 kg lighter at slaughter, which can also account for another 7,50€ for all slaughter pigs from P1 sows. That can be more than 90€ per P1 sow when weaning 12 – 14 piglets from first parity sows.

Adding these losses from the progeny performance together, the reduced value of P1 piglets compared to older sows is up to 250€ per P1 sow per year. And using our previous example of replacing 10 percent too many sows at a 1.000-sow farm, the costs are 25€ per sow, or 25.000€ per year.

One aspect that has a definite impact, but is difficult to measure on gilt replacement, is the destabilization of the immune status of the farm. New gilts will have a weaker health status than older sows, and as you bring more gilts in there is a deterioration in the immune balance on the farm.

Taking all these numbers together, the hidden loss of replacing 10% too many sows is up to 65€ per sow per year. For our example a 1.000 head sow farm, that

will be a 65.000€ reduction in income per year. And most producers don't realize this because the impacts are hidden.

Recognizing the hidden loss on your farm

When calculated over the entire production year, these hidden losses can be eye-opening. But we call them hidden for a reason: they can be very difficult to identify. Fortunately, producers can take a proactive approach to discover the extent of their hidden losses.

It starts with answering some important questions:

- What is your replacement rate per year?
- What is the average parity number?
- What percent of gilts introduced will have a minimum of 3 parities?
- How many good culls and how many bad culls are made on your farm?
- What is the reason for your sow replacement?

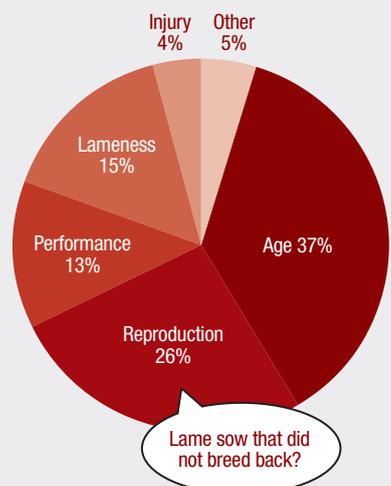
The impact of the first three questions can be determined using the information provided earlier in this article.

For culling, a good cull is an 8th parity sow sent to slaughter out of the farrowing unit. A gilt that dies or is euthanized just before farrowing is a bad cull. And then there's everything in between. But in principle, we need to

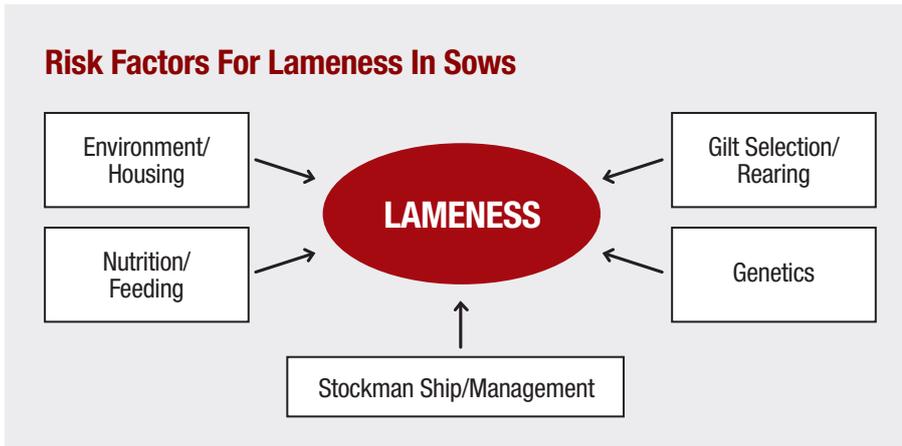
know who is making that culling decision: the farm manager (replacing because of the age of the sow) or the sow (lameness and/or poor performance). It's imperative to know where the individual farm stands.

It's important to also know the reason for replacement. Many on-farm investigations show that often only one-third of sows leave the farm due to age – too many are being culled due to lameness and poor performance. And poor performance can be a result of lameness issues.

Why Do We Cull Sows?



NAHMS, 2007.
Swine Health and Management in the United States, 2006



Keeping replacement gilts in the herd longer

All longevity issues start with raising the gilts in optimal conditions. Unfortunately, this is a key problem in many operations, with poor housing, overcrowding, an incorrect feeding strategy, or a feed that's not dedicated to gilts.

Averages can often be misinterpreted

Think of one hand in the fire and one hand in the freezer – an average is good, but both hands are suffering. It is the same with using an average parity number.

Too many young sows and too many old sows may result in a good average parity number, but it's not good for the overall performance of the farm.

The number of weaned piglets and weaning weight are lower for young sows and very old sows (older than 7th parity) compared to 3rd to 4th parity sows. A wrong herd profile, despite average parity number being on target, can lead to 1,75 fewer weaned piglets per sow. That's 50€ per sow per year, and 0,150 kg more weaning weight per piglet weaned is worth a minimum of 0.25€ per piglet and in an integration up to 1,5€ per pig. A wrong profile also gives some loss of opportunities for increased earnings. That is another hidden loss for the farm.

It's odd to think that the future of swine operations, the gilts, are not being raised in the absolute best conditions. However, this may be due to producers looking to ensure farrowing crates are full instead of ensuring that every gilt is at its optimum. It's a quantity over quality issue that helps to mask this hidden loss.

There is a solution, and even small changes to the operation can have a profound impact. Right off the top, producers should use a dedicated gilt feed. This ensures that gilts reach the correct weight with the right P2 backfat at the right time. Quality feed also helps to ensure that the gilt has no lameness issues. Peer-reviewed research shows that using Availa®Sow improves claw integrity.

And on farms that feed Availa®Sow, longevity in the herd increases due to overall better claw integrity. This makes perfect sense – it's hard to get a lame gilt performing well in 8 parities.

Adjustments in housing can make gilt selection more effective and increase sow longevity.

The bottom line is this:

- If we want to wean heavy piglets, we need older sows (4th Parity is optimal).
- If we want to wean many piglets, we need older sows (3rd Parity is optimal).
- If we want to wean healthy piglets, we need fewer gilts and more older sows.

A key component to good longevity is the use of Availa®Sow. This investment also is proven to increase milk production, improve feed efficiency and increase health.

Small changes can make a huge difference in the overall income. A hidden loss of 65€ per sow per year is a considerable amount of money worthwhile to make visible as more profit.

