

Staff Factors Case Study

This piggery runs 2,200 sows serviced by approximately 20 production staff. This study shows how important staff are in determining production performance, and highlights the need for succession planning, particularly for operational management staff.

Figure 1 is divided into three phases indicating changes in staff managing the farrowing shed. Phase 1 ends with the departure of the original manager. In phase 2 the second in charge becomes the interim manager. Phase 3 introduces an experienced manager to jointly manage the farrowing unit and continue training the interim manager.

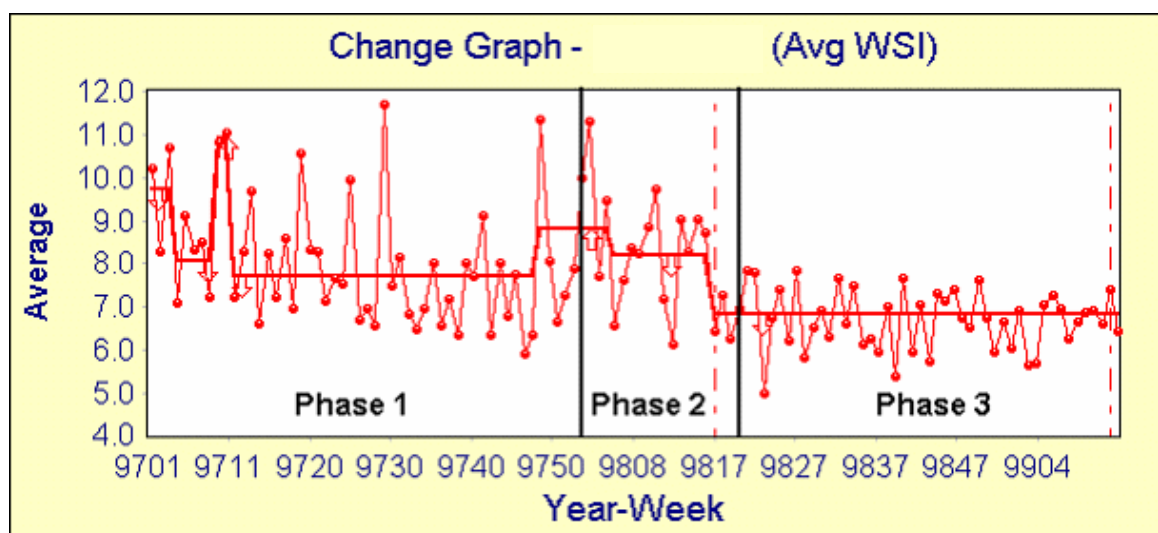


Figure 1.

Under the old management regimen in phase 1, sows were taking an average of 8 days to be mated after weaning (see figure 1). At the end of this phase, this had increased to 9 days. Within four weeks of the first change in management, average Weaning to Service Interval reduced by half a day. As the interim manager in phase 2 improved farrowing management (increased feed intake, reduced sow weight loss and reduced pre-weaning mortality rates) average WSI decreased again to stabilise at less than 7 days. This improvement is attributed to better sow condition at weaning and stronger lactations increasing "udder back pressure" stimulating the onset of oestrus at weaning.

The improvement in average WSI is also believed to have in turn contributed to improved subsequent mating performance. Figure 2 shows how Return to Service % decreased from 16% to 10% in week 9821. This improvement also corresponds with an increase in the use of Artificial Insemination to cover natural matings. As of week 9812, the portion of sows receiving cover AI inseminations rose from 20% to 50%. Note also that the normal seasonal increase in Return to Service % did not occur in

the summer of 1999. The AI program is clearly affording some protection against this traditional problem.

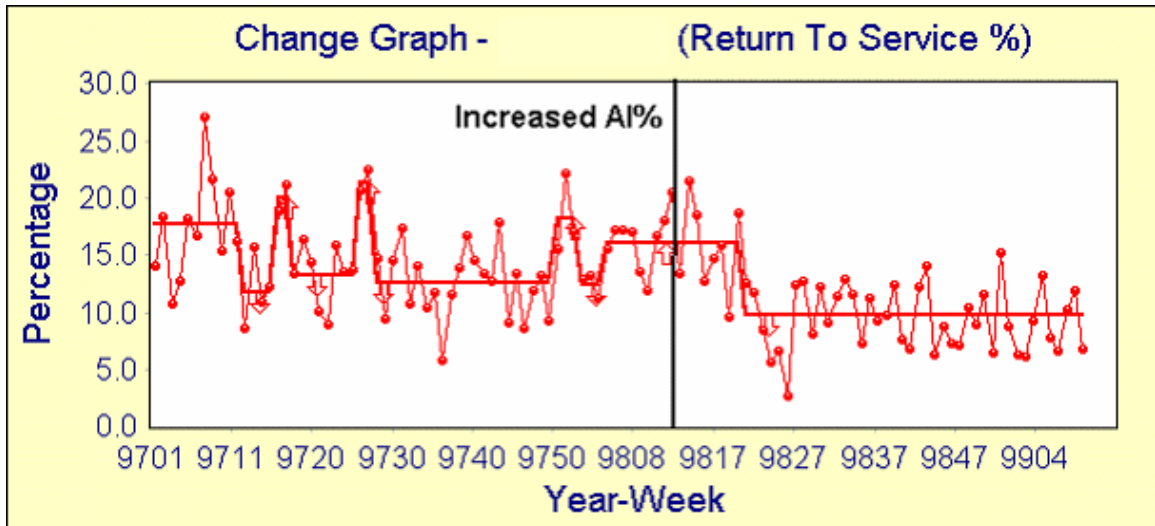


Figure 2.

As a result, farrowing percentage has increased by 10% and is now stable at 83%. Six percent of this improvement is explained by Return to Service %, the balance is partially explained by a 50% reduction in sow mortality, with sow condition and pre and post farrowing observation being key contributing factors.

Interestingly, 16 weeks after the AI program escalated, litter size increased by one third of a piglet born alive and average birth weights also increased by over 200 grams per piglet (normally expected to change in opposite directions, eg more piglets = less weight per piglet). See figure 3. Management believe that sow condition and increased feed intakes in late gestation are key management factors. The AI component must also be a significant factor, particularly in the hybrid vigour department.

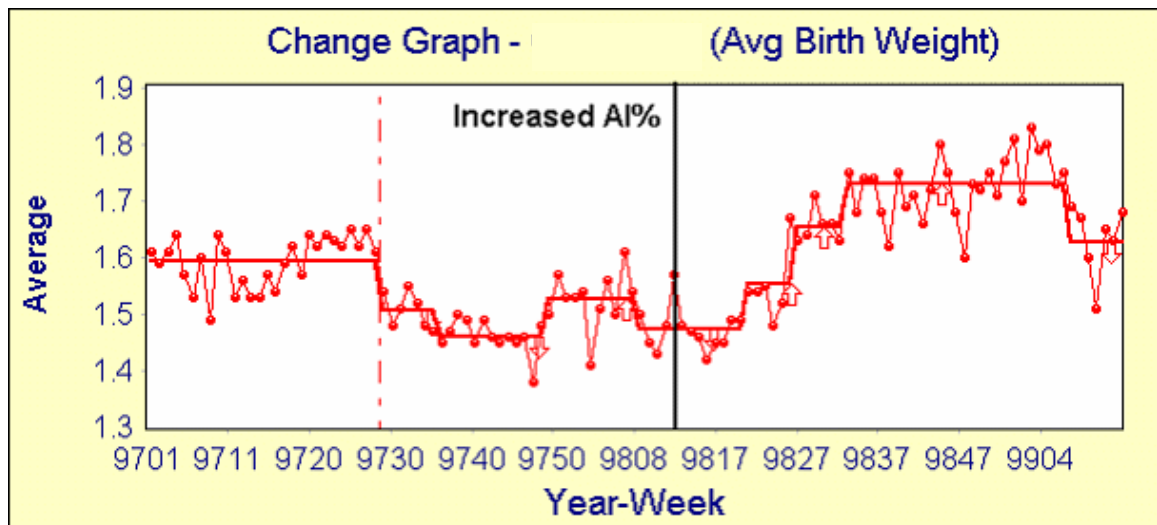


Figure 3.

Note that the downward correction in average Birth Weight in week 9907 is due to a recording error. During this period the total litter weight was divided by the total born alive rather than the actual number of piglets weighed. If records are being used to monitor performance changes, the first thing to check when investigating a change is the accuracy of recording. Getting into the habit of checking the data first is highly recommended.

In this case the recording error was caused by a change of staff and communication failure. The new person doing the weighing did not totally understand the job and did not count the pigs as each litter was weighed, but used the number of pigs born alive chalked onto the front of each farrowing crate instead. A plausible short cut, but any deaths or fosterings occurring between birth and the time of weighing will generate error.

PigPulse can not distinguish real production shifts from recording errors, it has done its job in alerting management to change. The first step in any investigation is to decide if the production system has changed or in fact whether the measurement system has changed. A common example is where staff record stillbirths differently, which effectively acts to shift a stillbirth % problem into a pre-weaning % problem or visa versa.

Valuing Production Improvements and Succession Planning:

Without doing any complex sums, a 10% improvement in Farrowing % means that we can do with out 220 unproductive sows. An extra third of a piglet per litter means we can do away with another 75 sows, and if an extra 200 grams of birth weight reduces piglet mortality by 1%, we can ditch another 22 sows.

Feeding costs alone for 317 sows are in excess of \$60,000 pa. When you put it in these very simple terms, succession planning is a very cheap and sensible alternative. The labour costs saved in managing 317 phantom sows would now cover the costs of a full time trainer. With a budget of \$60,000 pa, just imagine what he or she could do for staff moral, not to mention production performance!