

## Balancing feed conversion and weight gain

The performance of the GB pig herd improved slightly in the year ending June 2015, according to the latest data from Agrosoft. The average number of pigs weaned per sow per year was virtually the same as the previous year overall.

Nevertheless, at 25.71, the indoor herd weaned 0.09 more piglets year on year but the outdoor herd weaned 0.12 fewer than a year previously, achieving 21.48 pigs weaned per sow per year. This small change was largely due to a decrease in the number of litters per sow per year for the outdoor herd, suggesting an increase in infertility. Both litter sizes and pre-weaning mortality improved slightly indoors and outdoors.

The increased performance in the last year was driven more by improvements with the feeding herd than the breeding herd. Certain key performance indicators for the rearing and finishing herds, such as the feed conversion ratio (FCR), improved in the year to June 2015 compared to the previous year. For the finishing herd, the FCR decreased by 3% from 2.66 to 2.58 with the rearing herd recording a more modest decrease of 1% year on year, to 1.71.

The feed conversion ratio is an important performance indicator for producers, given its influence on production costs. Improvements on the scale seen over the last year are enough to reduce overall production costs by nearly 2p/kg (£1.30 per head), even with the current low level of feed prices. To achieve the most efficient FCR producers need to feed the pigs just enough so that they gain muscle weight but not excess fat. Optimising this could mean compromising on daily weight gain and, hence, time to slaughter. To emphasise this, average daily weight gain in the rearing herd fell by 31g to 480g in the year to June, while in the finishing herd it was little changed at just under 800g/day.

Looking at the rearing herd in more detail, the top 10% of producers had an FCR of 1.31, 0.40 below the average. However, their daily weight gain was 56g below the average, at 424g per day. Therefore, their daily feed intake was less (570g compared with 750g) as well as the feed cost per kilogram of weight gain being lower. The feed cost per kilogram for the bottom 10% was 53% higher than the top 10%, despite there being little difference in the feed price they paid per tonne.

In terms of the finishing herd, key differences have again been recorded between the top and bottom producers. The FCR for the top 10% of producers, at 2.09, was 0.49 lower than the average and 1.15 below the bottom 10%. It is also interesting to note that the average daily feed intake for the top 10% of producers (1.55kg) is 31% less than the bottom 10% of producers and 22% below the average. Nevertheless, in this case the top 10% of the finishers have a higher daily weight gain than the bottom 10% and only slightly less than the average.

Looking at things in reverse, the 10% of producers with the highest daily weight gains have an average FCR of 1.82, worse than the average, while those with the slowest growth have FCR close to the average. For the finishing herd, the top 10% for weight gain have an average FCR, while the bottom 10% have one which is slightly worse than average.

In interpreting these figures, it is important to take into account that producers have different production systems, for example transferring between stages at different weights. These may exaggerate the gaps between top and bottom producers but the point that good FCR is important to costs but doesn't necessarily mean fast weight gains, perhaps the opposite, remains clear.

Daily weight gain may be low due to a number of factors. For example the daily weight gain for the top 10% of the rearing herd (in terms of FCR) is relatively low, along with daily feed intake and FCR. This would suggest that these producers are feeding sparingly so the pigs are gaining muscle rather than fat, probably meaning they are producing a higher quality animal. On the other hand, the bottom 10% of the finishing herd also have a low daily weight gain but a high feed intake and high FCR. This suggests that these animals are eating a lot but burning it off or putting on fat rather than muscle, which could indicate poor management or disease issues.

Of course, a lower daily weight gain will mean that the animals are having to be kept and fed for longer. This, therefore, may mean that even if the producer is achieving a lower FCR and feed costs, their other costs will increase. This leads on to the issue of housing; if the producers have to keep their stock for longer then they will require more accommodation, which may not always be possible, or their production numbers will need to go down. Of course, it is also worth remembering that feeding is not the only aspect of herd performance, with measures such as mortality rates important too.

In conclusion, the balance between feed conversion ratio and daily weight gain is not clear cut. On one hand, a low FCR means less feed cost but on the other, if it means slower weight gains, keeping the animals for longer can lead to higher fixed costs and will require more housing. While a low daily weight gain could mean that the producer has a good FCR, it could indicate that there may be an issue with herd management or health. There appears to be no right or wrong answer and each farmer needs to work out the optimum balance for them. However, focusing on a single KPI could cause issues in other respects.

