

Whole-herd performance tracking

Where are the problem areas in your growing facilities? Carrying out trials, or tagging pigs from entry to slaughter on commercial farms can be time consuming, costly and the data is not there for some time. An **easy and quick** way of identifying and **visualising** problem areas within the herd is to weigh a sample of pigs from each week of growth (e.g. 3 to 5 pigs randomly selected from within each pen and week) in all growing stages. Do the whole farm preferably within 1 or 2 days. This will increase the workload over the two days, however the resulting data is very **informative** and will **quickly** identify problem areas.

The data (weight, pen, house and week of age) can be easily entered into a spreadsheet and then plotted as a graph with different houses distinguished by different coloured symbols. This method can be used to compare different pens or buildings or to compare different years on the same farm.

Figure 1 shows data from a high health herd. Figure 2 shows weights from a normal health herd. In Figure 1 the weights increase roughly in a straight line. At each week there is little vertical spread in weights. In contrast, in Figure 2 there are periods where successive weights are relatively similar (i.e. the spread is flatter and pointed out by the downward arrows). The vertical spread in weight is also greater at each week compared with Figure 1. The flat areas are periods of little growth, possibly in different houses, and highlight the bottle-necks in growth.

Once problem areas have been identified it is necessary to assess what could be causing the problem to take corrective action. Below is a list of factors that can affect the performance of pigs in the growing-finishing stages.

Environmental Factors Affecting Growing Pigs:

- Incorrect house temperatures, particularly fluctuations.
- Pigs held below their lower critical temperature.
- High ventilation rates, air flow and draughts.
- Low or fluctuating humidity together with low temperatures.
- Poor insulation.
- Worn out environmental controllers and sensors.
- Floor types, poor drainage, wet floors, slats with draughts.
- Constant mixing and movement of pigs.
- Moving pigs too soon from one house to another.

- High stocking density.
- Large group sizes and small cubic air space.
- Continually populated houses with endemic disease.
- Feed changes when pigs are moved from one house to another together with lower levels of nutrition.
- Inadequate trough spaces or water availability.
- Poor or inadequate nutrition.
- Continual exposure to faeces.
- High levels of toxic gases.

This method provides a useful and quick method to find out where animals are slowing down or where the weights are variable. It is useful to undertake such an analysis say twice a year. This can be used to evaluate performance or visualise the improvements made to housing, ventilation or feeding. This could be done before and after on-farm changes are made. This method provides a useful visual tool which farm staff can easily put together using a spreadsheet and use for discussion.

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Quantech Solutions provide consultancy to the food chain and bioscience sectors. We work with clients in agriculture, local food supply chains, breeding and processing companies and retailers.

Figure 1 Example Growth curve - high health (dots are individual pigs)

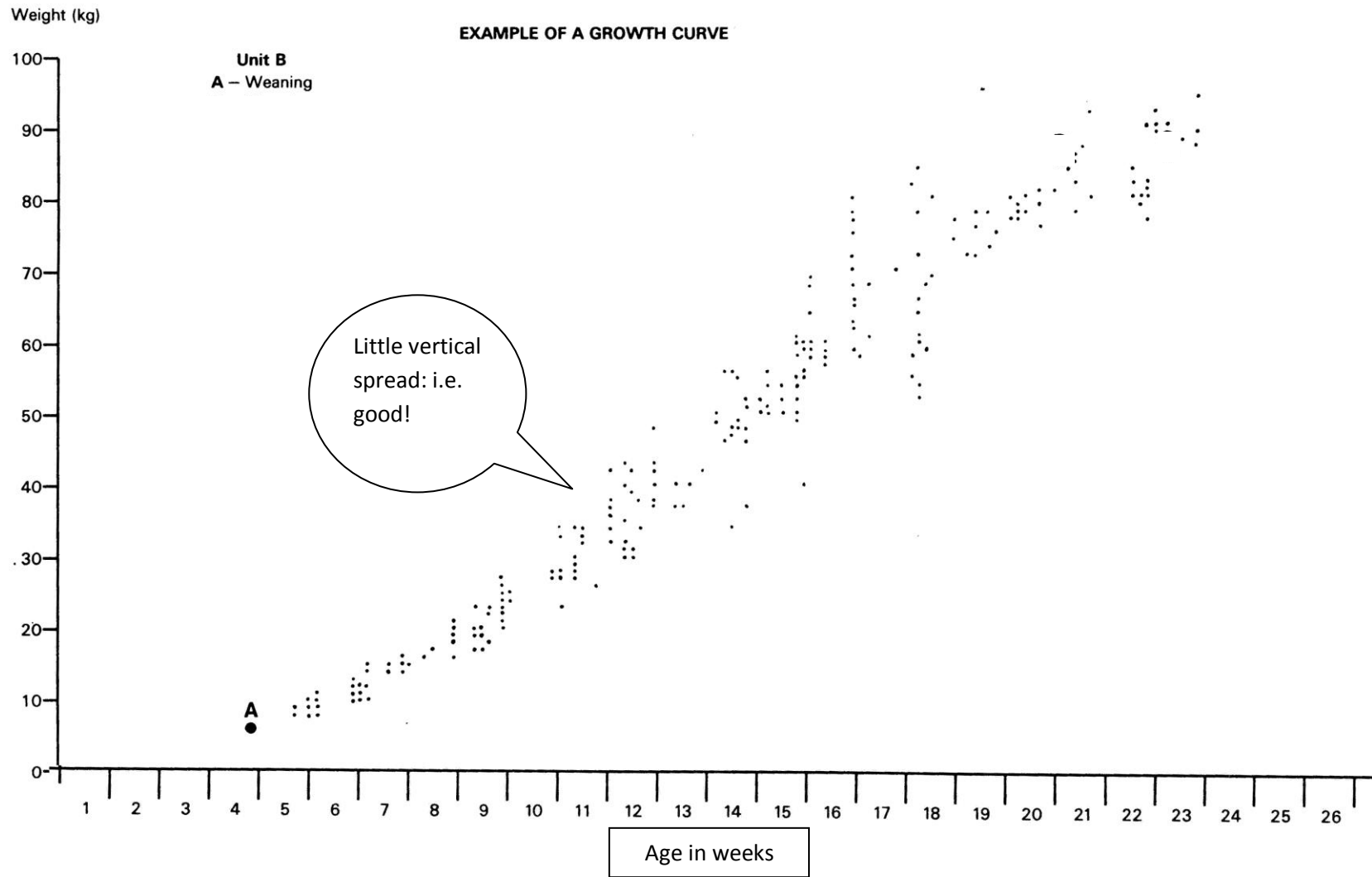


Figure 2 Example growth curve - normal health (dots are individual pigs)

