

Pig Equipment Trials

Introduction

Anyone who manufactures equipment for pig buildings - from drinkers to ventilation systems - is familiar with the problem of demonstrability and real world research.

You may have the most reliable and cost effective piece of equipment on the market, but no one believes you, and it's often hard to demonstrate its effectiveness in concrete terms.

Proper control trials are desirable, but they're expensive. Clearly, the ideal would be to set it up yourself, but it takes a lot of time and effort. You can hand the job to any of the number research institutions, who will be glad to take your money. But you may find your money has been treated as a kind donation, swallowed up in overheads or to support the research they want to do, not necessarily what you had in mind.

Often, you're not after such academic work. You know the equipment works, you want more data to prove it on farm. For example, you have plenty of evidence for your popular equipment in the UK, but you want to be able to show US customers it can work for them.

So, at the other end of the scale, you may offer equipment to a customer on a trial basis. Trials can drift from months into years, with very little that's specific to hang your hat on. It usually rests on the customer proving to himself, because you only get the feedback that he gives you.

There is now an alternative.

Fast Low Cost Real Time Trials

Thanks to major innovations in Dicam control and monitor systems, we can capture all kinds of raw data direct from site with speed quality, depth, ease of use and low cost.

Dicam monitor and logging systems are low cost, and built for easy installation and long service in agricultural and other difficult environments. Better still, an increasing number of pig farmers are specifying Dicam as their control and monitor systems of choice. So you may well find a Dicam network system already installed by your chosen customer or trial site.

With a Dicam logging system in place, Dicam's Barn Report remote download and processing service delivers real time processed data without site visits. The service includes a presentation program, but we can also deliver raw data or offer Independent Reports if you prefer.

As well as reducing the cost of farm trials, instant data retrieval speeds up the trial process. It can yield usable data in days instead of weeks, giving you back the initiative in sales and development opportunities.

Examples

Pig Drinkers : Leakage from pig drinkers is a well established problem, but it can be hard to persuade customers to change. On site trials take a long time, as it's not easy to see improvements in the short term, and they may disbelieve results from other farms.

Using simple but established Barn Report Analysis techniques, we can quantify drinker leakage in quantity and cost terms within a short time.

A trial customer installed new drinkers and we demonstrated leakage elimination within 30 days. This was easily translated into cost/benefit per drinker per year.

An almost instant sales opportunity benefit despite the fact that water use with new drinkers was higher than before (the pigs were growing mean time).

Energy Savings : All farms are keen on electricity and gas savings, but variable weather, periodic utility bills and many other compounding factors means that reductions may be difficult to establish with any certainty. An electricity or gas meter on its own can be deceptive, besides taking a long time to give results.

By correlating energy use with environmental and other factors, trials can establish reductions and association with other factors much quicker and more clearly.

Barn Report charts and other analyses improves the involvement and emphasises supplier/customer cooperation in achieving the savings.

How it works

A Dicam logger unit is connected to one or more data gathering modules on the farm, connected with a simple low cost network cable. The logger is normally mounted in the office (or any other convenient location with a telephone line) with a modem.

The data gathering modules can be simple processor modules or - where the farm already has Dicam controls - data may be collected using the Dicam control units.

Sensors are connected to the data modules. A wide range is available including temperature, pressure, humidity and the data modules have a "counting mode" for measuring such factors as when and how long motors or heaters are switched on, pulses from water or electricity meters and so on.

In most cases, equipment suppliers will want to measure and record parameters associated - though not directly connected with - the equipment under trial. For example, a heater manufacturer would naturally want to know such factors as outside and room temperatures. With Dicam monitor systems, this is easy and cheap, and with already installed Dicam control networks the data may already be present.

Systems are easy to install - most are installed by the local farm electrician. The system is then configured remotely by our engineers via the modem, and the logger steadily gathers data from the site.

When required, we can also offer bespoke logging software - for capture of non-standard sensors, or for site operators to enter auxiliary data related to the trial. This data is downloaded along with measured parameters.

Using our Barn Report data download service, we download the gathered data from 2 to 7 times a week. The data is processed by our servers and then loaded on a secure (non-browsable) Internet server, so it is available at any time for review by clients using our Barn Report viewing program.

Since data is downloaded regularly and routinely by our server, little or no effort is needed by on-site staff, and latest results are available almost instantly.

Results

Immediate display of results during the trial is by Barn Report. Depending on the data, it is usually in a combination of numerical summaries and on screen graphical display.

Unlike typical data logging systems (which simply record values), the system includes features such as integration and summarisation. For example, electricity use summarised into daily usage.

The presentation program is easy to use, and requires little or no configuration.

Barn Report is geared to instant display of results, so normal presentation is on screen, but it also has the facility for hard copy and can export data for subsequent external analysis (such as by spreadsheet) or inclusion in other reports.

Barn Report also has facilities for using manually entered data, if required. Data can be output as raw readings. Review of the Results

Both the company supplying the equipment under trial, and the farmer are normally given access to the data presentation (and if necessary, as many people as necessary on both sides). Unlike ordinary trials, data is available from the outset, and builds up from there.

This is particularly important when trials require a close involvement. For example, where the way it is used is crucial to the result, and the supplier company wants or needs to discuss the results as they proceed. Unlike ordinary trials, this can be carried out over the phone or Internet, saving on costly site visits.

Being in electronic form, results are easily imported into other programs for presentation - whether for peer review or publication.

We have wide experience of the operation of pig buildings and on request, we can also produce independent analysis and review of the results.

Results from any particular trial are regarded as confidential unless indicated otherwise.

Costs

Equipment

Dicam monitor systems cost from £800, depending on the number and type of sensors required.

If the site already has a Dicam network, it may have sufficient capacity (needing only some extra sensors and a little wiring) or else it may be extended as required (extra data gathering modules) to cover the equipment under review.

Systems can be installed on a temporary basis. However, experience shows that trials are often extended, and permanent installation is advised. Farmers are often a little reluctant to give such easy access to data, once they have it. Subsidisation of farmer purchase may be a more sensible route.

Data Download & Presentation

A single charge - typically £20 to £50 per month, depending on frequency and scale of trial - includes cost of routine data download, processing and use of Barn Report.

Access to a telephone line is advised, but a dedicated line is not usually needed.

If a telephone line is not available, we suggest paying or subsidising the cost of line installation and rental during the trial, since telephone access is much cheaper than the alternative of multiple site visits to download the data by laptop.

If this is not practical for whatever reason, we can provide a data download program (for use on a laptop). In this case, data would be sent to us via email for processing.

Reports

Reports may or may not be needed, depending on the product under trial.

Written reports depend on the type of product and cost from £150.

Documents are usually published in electronic form, and are provided with transfer of copyright if requested.

If further analysis of results is required (beyond the data presentation included in Barn Report), we can produce reports, depending on the product under review.

Cost is from £150 per report, depending on detail, and documents are usually published in electronic form.

To discuss your requirements, please contact Nick Bird on 0 [+44] 118 986 7252 or email nick@farmex.com