

Commercial trials farm in Thailand leads the way

One of the challenges constantly facing the nutritionist is that of extrapolating small research establishment based trials to the field as these often do not take into account all the challenges faced by the flock in a commercial setting. Some of these are purely a numbers effect, whereas others reflect the adversities encountered on real farms. Then there is the question of whether European or American trial data is appropriate in an Asian context.

To some extent this can be overcome by the customer doing trials to evaluate a particular nutritional product on his own farms, but some would debate whether this is a



The trials farm.

role for the customer and, if they are done, the results are often not available to the world at large.

In order to address some of these issues Biomin have established their own commercial trials farm in Thailand and International Poultry Production recently went to visit this isolated trials farm in Ratchaburi Province. Each house on the farm is 80 x 14m providing 1,140m² of bird space in

which broilers are placed for a final stocking rate of 28-29kg per m². The houses are tunnel ventilated, fixed wall houses with cool pads.

What makes the farm unique is that each house is divided down its long axis to provide two identical pens which can, if required, be sub divided into more pens.

Each side of the house has its own feed

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Each half of the house is separately recorded (right).





Each half of the house has its own feed and water systems.

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and water supplies so that these key inputs can be accurately recorded for each pen. Thus, two trial groups can be in the same house with, for all practical considerations, the same environment. Replicates can be created in other houses on the site. In total, there are 10 houses, therefore there are 20 trial pens on the farm.

Feed comes from a local commercial Thai feed mill so that the feed is as close as possible to typical feed encountered in the region. The feed is all bagged to enable accurate measurement of daily feed inputs.

As a result, Biomin are able to generate data comparing different treatments against controls and to be able to take this data through to meaningful commercial performance and cost comparisons.

On going bird weight data is obtained using Weltech bird weighers. Interestingly, this equipment is also used to gain an indication of bird activity in each pen by recording the number of times birds alight on the scales per a given unit of time.

Needless to say, the staffing on the farm is not the typical staffing you would see on a Thai broiler farm as there are several graduates here to manage the trials and to coordinate the recording processes.

Bird weighing controls.





Each poultry house is divided into two pens.

In fact, this necessitates a couple of workers per house and the operation of day and night shifts. Interestingly, the staff rotate around the houses on a weekly basis to minimise the effect of any staff factor on the trial(s) in progress.

At the time we visited the farm it was stocked with Arbor Acres Plus broilers that were 10 days old and a trial was under way to assess the benefits of possible new versions of one of Biomin's mycotoxin deactivators.

Mycotoxin testing

The value of real farm trials is highlighted when you consider mycotoxins. Typically, we think of mycotoxins entering birds from contaminated feed and this can be assessed in the laboratory.

In fact this is not the case in the field where other routes by which the bird can come into contact with mycotoxins exist such as the litter and dust in the house.

The former is particularly important in Asia where rice hulls, which can be heavily contaminated with mycotoxins, are often used as bedding for broilers.

Thus, a farm based trial can evaluate the benefit of a mycotoxin control product against the total threat and not just the foodborne mycotoxin threat.

For mycotoxin related trials Biomin are very fortunate to have one of the world's foremost mycotoxin testing laboratories, Romer Laboratories, as a sister company in the Group and to have their Asian laboratory close by in Singapore.

Looking to the future, Biomin see this farm increasing in importance as a corporate asset as there will be greater needs to test alternative ingredients and new nutritional products, including on coming phytoneutraceuticals.

Perhaps it will not be too long before a similar table egg farm is established because of the important impact nutrition has on egg quality and the whole economics of egg production. ■