Thai producer reaps the benefits of PRRS vaccination

International Pig Topics was recently in Thailand on one of Mittraphap Group's pig farms and discussed with their CEO and owner Surachai Taepaisitphongse some of the challenges currently facing Thai pig producers.

We visited their large farm in the pig dense Lopburi area, which is a couple of hours drive out of Bangkok.

This farm was experiencing a farrowing rate of >90% and had a born alive figure of 11-13 piglets per sow. Typically, piglet losses in the farrowing house were <7% and could be as low as <5%. Weaning took place at three weeks when the piglets weighed 7-8kg.

One of Mittraphap Group's pig farms.

Nursery phase

The nursery phase produced 20kg pigs at eight weeks of age and this was achieved with an average daily gain of 400g and an FCR of 2.6. Losses in this stage were well under 2% and often under 1%.

From eight weeks of age to 100kg the pigs went through the fattening stage and were typically killed at 24 weeks with an FCR of 2.8-2.9 and a mortality plus culling figure of <3%.

Overall, losses were about 12% – a figure which is quite reasonable for an old farm with just a few evaporative cooled houses on it.

However, this has not always been the case. Just a few years ago losses totalled 30-40%, antibiotics were not working and managers and staff were seriously demoralised and demotivated.

At that time Surachai felt he could no longer follow the current advice that he was being given that focused on management changes and antibiotic usage.

Instead, he took advice from Boehringer Ingelheim's Thai technical team and instigated their vaccination programme against PRRS using Ingelvac PRRS MLV. Being a businessman, he took the approach not to look upon vaccination as a cost but as an investment that had to generate an adequate return (ROI).

He could do this because he had an adequate data collecting procedure on his farm. He also knew that his cost of production should not exceed 54 Baht per kg.

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Inside and outside a traditional farrowing house.

Left, the nursery stage (note the interesting way of creating an extra feeding point by embedding a plastic bowl in a block of concrete) and, right, fattening pigs enjoying the wallow area in their pen.

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At the time he decided to go down the vaccination route his costs were well in excess of 60 Baht per kg and his business was incurring significant losses. Six months into the PRRS vaccination programme a marked improvement had occurred which was mainly due to the vaccination programme. There may have been a contributory effect from improved feed and management on the farm, but these had basically remained unaltered.

A big impact from vaccination was seen in terms of reduced mortality and culling figures, increased daily gain and a very worthwhile reduction in FCR. All of these, when combined, gave a marked reduction in cost of production. He has now used the vaccine for four or five years.

Another real benefit was that when a very virulent Chinese strain of the PRRS virus finally reached Thailand via Cambodia and Laos his herd was able to withstand the challenge, whereas non-vaccinated herds in the area were decimated, with some losing more than 80% of their sows. Needless to say, these unfortunate farmers went out of the pig business. So his investment had yielded real dividends!

However, health management has not just been about PRRS management. It has centred around a vaccination programme that also includes foot and mouth disease, atrophic rhinitis and Haemophilus parasuis vaccination in gestation, parvovirus vaccination at farrowing.

Piglet vaccination

Piglets receive PRRS, PCV2 and mycoplasma vaccines at weekly intervals and at five and seven weeks of age a dose of a swine fever vaccination is given.

In the fattening/finishing phase foot and mouth vaccine is given at nine and 11 weeks and Aujeszky's disease vaccine at 10 weeks.

In the rainy season, some antibiotics are given to pigs at 12-14 and 16-18 weeks when needed.

In essence, the farm could cope with the diseases it encountered (those cited above plus E. coli and Streptococcus suis), but when the immunosuppressive PRRS virus came along it was akin to tipping petrol on the disease fire that was already smouldering on the farm.

This fire was very successfully put out by the use of the Ingelvac PRRS MLV vaccine.

An interesting observation from the farm was that vaccination needles were acting as mechanical mosquitoes and spreading the secondary bacterial disease around the farm.

This phenomenon was virtually eliminated by adopting a policy of one needle for each sow and one needle per pen of pigs elsewhere on the farm.

Nowadays, only sick pigs are given antibiotics by injection and the days of mass or blanket medication are confined to history. Coupled to this is a positive management philosophy which believes in culling pigs rather than persevering with them. In addition, pigs are being killed out at a similar age to before, but 5kg heavier. This alone has taken 5% off per kg fattener fixed costs.

Today, vaccination plus treatment costs are less than 300 Baht per pig, whereas in the bad old days of rampant disease these could easily exceed 800 Baht per pig!

Nowadays, mycoplasma and PCV2 vaccines are given as combined bivalent product which minimises stress to the animals and soon PRRS will be in the vaccine as the farm switches to Boehringer Ingelheim's 3FLEX vaccine. This should further minimise pig stress and farm staff workload!

Surachai's final and very pertinent comment was to the effect that in today's pig industry you must have a system in place that monitors production and costs in enough detail so that you can evaluate the impact of change on the business.

Surachai had such a system in place and knows that his decision to vaccinate his breeding herd and piglets against PRRS was one of his best ever business decisions! ■

In traditional housing there is a large space under the floor to facilitate natural ventilation.

Inside an 'evap' fattening house.