Thais achieving 26 weaned/sow/year

The VPF Group Company Ltd is one of the most progressive pig and pork producing companies in Thailand and International Pig Topics recently visited them to see first hand how this success story has evolved.

The company is located in Chingmai province in northern Thailand and contains a breeding business with its own feed mill. Sister companies are Maeta V. P. Company Ltd who raise and grow pigs through to slaughter weight and V&P Freshfoods Company Ltd who operate the most up to date slaughtering facility and meat processing plant in northern Thailand. Finally, there is the commercial feed business of Maeta V. P. Feedmill Company Ltd.

The breeding farm at VPF Group Company Ltd.

A leading pork integrator

The whole group sees themselves as a leading integrated pork business that has a strong commitment to quality and they intend to evolve from a leading Thai company into a major international one.

In this article we will focus on the Group's breeding activities and in a future issue of International Pig Topics we will look at the commercial farming operation and V&P Freshfoods Company Ltd.

The breeding activities started in 1973 with four sows and a boar and in 1980 it moved to a dedicated farm in Rimnuea in Mae Rim District of Ching Mai Province when it numbered some 200 sows.

In 1985 VPF Group Company Ltd was created on the present site of 160,000 m^2 to produce piglets for use elsewhere in the group. The operation has had GAP (Good Agriculture Practice) status since 2003.

The key features of the operation are its extensive use of artificial insemination to produce some 13,000 piglets a month and the way the waste is managed, which we will come to later in this article.

Central to the company's breeding success is its use of artificial insemination. There are seven Large White and five Landrace boars, which are used to produce the breeding females, and 79 Duroc boars, which are used to produce the semen to service these with.

Obviously much management attention is given to these boars and this is typified by the interesting approach of individually top dressing each boar's food allowance with his daily allowance of key micronutrients (see

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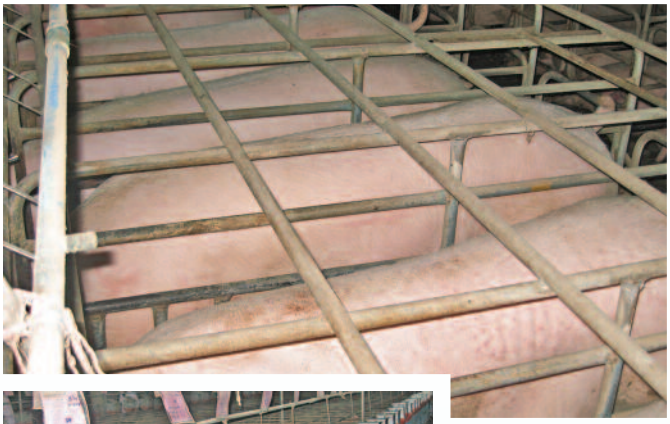
Inside the boar house. Note in the inset, right, how each boar gets a vitamin/mineral supplement with its feed every day.



In the sow house.

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photograph), thereby avoiding reliance on the feed mill and avoiding any possible problems of loss/reduction in feed milling and transportation.

It also gives the farm management peace of mind, in that they know each and every boar has had its key micro-nutrients. The farm actually has its own milling operation that produces some 30 tonnes of breeder feed a day.

Typically, the boars produce semen once a week and two production runs of semen for artificial insemination occur every week.

Both fresh and chilled semen is used.

In a typical month some 3,200 semen doses are prepared, each with 3,000,000 million spermatozoa. The farm is able to run with an effective boar to sow ratio that is between 1:80 and 1:100. The farm has some 7,200 sows of which almost 1,700 are lactating at any time. In addition, there are typically 1,200 gilts on site at any time. The operation is producing a very impressive 26 pigs weaned per sow per year.

100% artificial insemination

Sows are kept in houses that have evaporative cooling and they receive 2.2 -2.4kg of feed twice a day with access to adequate water. Heat detection occurs twice a day and 100% of the sows are artificially inseminated.

The average weaning to first service inter-

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Some sows eat . . .

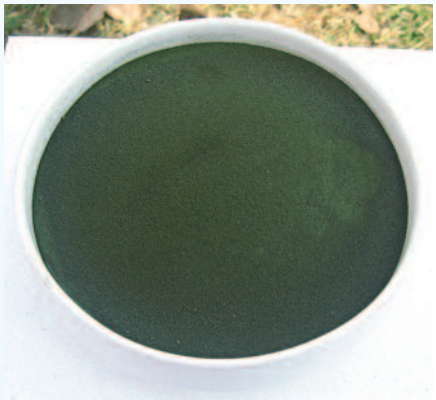
. . . and some can not!

In the farrowing house. Note, right, the well managed piglet area.

A good litter and a happy litter in the farrowing house.

A novel way to give stabili

The Spirulina product before and after powdering.



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val is 6.4 days and some 92% of the sows are mated within seven days of weaning. The farrowing rate is 89% and the sow cull rate is well under 40%.

Sows are transferred into the farrowing house four days before farrowing and this period in the sow is referred to as the lactation period by the Thais.

There are six lactation houses with evaporative cooling.

Total born per litter is 13.6 and the born alive figure is 12.2 piglets. The average birth weight is 1.6kg and the pigs weaned per litter at 23 days figure is 11.2 at a weaning weight of 6.7-7.0kg. Typically, the litter gains 2.5kg a day.

The loss figures are 4.0% mummified foetuses, 6.0% stillborn and 10% pre-weaning mortality, which is very good for Thailand.

As previously said, all this equates to a weaned per sow per year figure of 26 – a figure that VPF should be proud of.

However, having met the company's management team this is a figure that we know they will strive to improve.

Lactation zone management

Management in the lactation zone was high with plenty of attention being given to the piglets. Creep feed was introduced quite early and creed wastage was minimised by giving each creep 'dish' a concrete collar (see photograph) to stabilise it and make it impossible for the piglets to turn it over and tip its contents all over the floor!

Most of the weaned piglets go to the Group's own commercial farm and then on to its own processing plant. Some are sold externally.

When it comes to waste management VPF are very much to the fore with their progressive thinking.

Key breeding data

- Boars produce semen once a week.
- Two production runs of semen for artificial insemination occur every week.
- Both fresh and chilled semen is used.
- The Modena semen extender is preferred.
- 3,200 semen doses are prepared each month.
- Each dose contains 3,000,000 million spermatozoa.
- The boar to sow ratio is between 1:80 and 1:100.
- The farm has some 7,200 sows, of which almost 1,700 are lactating at any time.
- There are typically 1,200 gilts on site at any time.
- 26 pigs are weaned per sow per year.

After sedimentation the Spirulina sediment is left to dry off.

The water is purified for re

ty to creep troughs.

Heavy emphasis is given to effluent management in the Biogas digester.

All waste goes into the Biogas Digester that produces methane, which is used to produce all the farm's electricity needs, and carbon dioxide, which is utilised in the Spirulina algal pond.

Here the solid waste, which has been separated off, is solar sterilised before it is used in the production of Spirulina, an algal based nutrient, which is used in animal feeds.

The waste from this then goes into the fish and waterweed ponds which provide a worthwhile commercial byproduct of the operation – fish!

Looking at the production of electricity from the methane here again we have a very efficient operation. German equipment is used and the system has a total efficiency of almost 86%.

Key farrowing data

- Total born per litter is 13.6.
- Born alive figure is 12.2 piglets.
- Average birth weight is 1.6kg
- 11.2 pigs weaned per litter at 23 days.
- Weaning weight of 6.7 -7.0kg.
- Typically the litter is gaining 2.5kg a day.
- 4.0% are lost as mummified foetuses.
- 6.0% are stillborn.
- 10% pre-weaning mortality.

Locally produced Thai pigs!

The VPF Group can rightly be proud of all that they have achieved at the breeding level.

In a future issue of International Pig Topics we will look at their activities downstream from this breeding operation and their aspiration to become an exporter of Thai pork and pig meat products. ■

e-use on the facility.