Betagro expands hatchery to fully utilise the chick handling area

When leading Thai broiler company, Betagro, needed to increase its hatching capacity it decided to build a wing on to an existing hatchery so that the chick processing area could be fully utilised. This was achieved by taking four hatches a week out of the existing hatchery and a further two hatches each week from the new wing.

The Betagro hatchery.

Daily egg shipments

The hatchery in question is at Lopburi which is a two hour drive to the north of Bangkok and in the middle of one of Thailand's major poultry producing areas.

Currently, the company uses a lot of Arbor Acres Hi Yield broilers but has equivalent Ross, Cobb and Hubbard stock on the ground for comparative purposes.

Recently, the Hubbard Flex has been performing well and this breed is likely to increase its share of production in the near future.

Eggs come into the hatchery every day from six large laying farms that are reasonably close to the hatchery. Eggs are graded and fumigated on farm. The intention is to always use eggs that are less than seven days old. At the hatchery (and on the laying farms) hatching eggs are stored at 18°C and 75% relative humidity.

For the extension to the hatchery Betagro decided to use SmartPro incubation equipment from the Dutch incubator manufacturer Pas Reform and use single stage equipment.

Several reasons were given for this choice. Firstly, Betagro like the technology that runs and supports the incubators.

Secondly, there is a local agent and he is someone the company trusts when it comes to support, service and availability of spares. Personal relationships are very important in Thai business relationships.

In addition, Pas Reform place a high importance on people – two hatchery managers were given intensive technical training at Pas Reform's Dutch headquarters and Thai hatchery staff were trained by Pas Reform and their agent during the construction and commissioning of the extension.

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Left, the egg store and, right, inside the setter room with the SmartPro Setters. Above right, the corridor between the setter rooms.

Left, eggs being fed into the transfer machine and, right, being placed in the hatcher basket.

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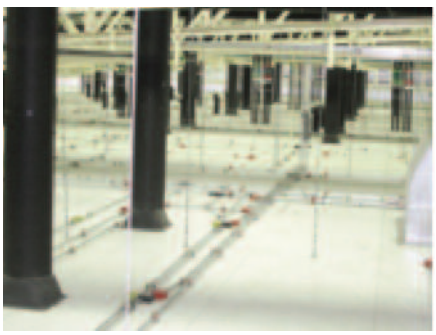
Betagro believe that single stage incubation gives benefits in terms of more first quality chicks due to better hatchability, improved chick quality and a reduced hatch window. They also feel that it gives better standards when it comes to hygiene and biosecurity.

Top, the air cooling system and below the roof space with minimal clutter. Note in the bottom photograph, the open sided roof space is netted off to keep wild birds out.



Key features of SmartPro

- Thermomodulation
- Precise climate control
- Homogeneous temperature
- Vortex based air flow
- Modular design
- Ergonomically advanced
- Adaptive Metabolic Feedback

. . . and in the resulting broilers

- Better FCR
- Better final body weight
- Better processing yield

The corridor link between the old hatchery (left) and the new extension (right).

In addition, Pas Reform's price was reasonable and they could deliver in accordance with the company's desired time scale for the project.

Hygiene and biosecurity are important because over 20% of Betagro's production is exported to discerning European and Japanese customers who place a high priority on product safety and hygiene.

Part of the hatchery is 30 years old and its results are slightly seasonal. Its chick room is shared with the new hatchery wing. This requires 25-30 staff and is built so it is much more energy efficient with a heat recovery system that enables energy to be recycled.

For the extension Pas Reform supplied their SmartPro Setters and Hatchers as well as the ventilation system, chiller and heat recovery units.

In the new extension improved biological performance has been seen. The chick reject loss is typically 0.7-1.0% with a hatchability of over 85% saleable chicks. ■

Above left, the SmartPro Hatchers are designed to facilitate efficient cleaning, while their control panels (above right) have a novel display to graphically depict each stage of the eggs. Below left, the computer in the hatchery from which management can oversee the incubators plus a strategically placed Pas Reform wall chart. Below right, the graphics on the computer are very user friendly.