

French turkey hatchery benefits from single stage incubation

Over the last decade the French turkey industry has declined significantly, with the number of hatcheries halving from 14 to seven in just a decade and the number of poults placed being more than halved.

This has arisen because export markets, such as Germany and the UK, have virtually disappeared and the domestic French market for turkey meat, which was virtually 100% home sourced, now attracts imports. For example, two German supermarkets are now widespread in France and they tend to source their poultry meat from Germany.

Countering this to a very small extent is the export of day olds to North Africa. For a fuller picture on the global turkey meat situation readers are referred to International Meat Topics (Vol. 2. No. 2 7-10).



The egg store and methods used to identify flocks of origin.

Own breeder farms

Recently, International Hatchery Practice spent some time at Le Helloco Accoupage with Estelle Tanguy-Le Helloco who runs the operation and is the daughter of its founder, Pierre Le Helloco.

Currently, the company runs some 30 farms in Brittany – 14 rearing and 16 laying – that, between them, have some 60,000m² of space. These farms range in capacity from 3,000-12,000 turkeys and they are all within an hour's drive of the hatchery which is

located in Loudeac. One of the problems facing the company a few years ago was old farms and so all were refurbished and now contain Vencomatic automatic turkey nests.

Today some 12 million hatching eggs per year are produced, which are mainly from Hybrid and Aviagen Medium strains, with a few Heavy strain eggs.

One of the dilemmas currently facing the sector is that the industry has been based on farmers supplying the processing plants

through 'production organisations' – usually the feed mill. Currently, there is a shortage of supply so the farmers are in a very strong position and can be quick to change their allegiance.

This means they are dictating breed and they favour the Hybrid product (the Grader-maker) which is more of a grower's and processor's bird, whereas the Aviagen bird is a more balanced bird in terms of breeder,

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Left, a stainless steel pillar and cladding protect the doorframe from trolleys. Centre, AirStreamer setters (note the calibration date on the thermometer) and, right, egg candling.





AirStreamer hatchers during cleaning with photos showing inside the machine and in the plenum corridor behind the hatchers.

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hatchery, farmer and processor. Currently, some 20% of production is exported, more in a good year.

Two stage development

The current hatchery came into being in 2005. The choice of location took some time because the company wanted to retain its team of staff; the hatchery had to have easy access to the road network; and, because of tight French pollution regulations, a site that could access the public sewer was highly preferable. In addition, the site wanted to have some size so they had their own land between the hatchery and neighbours.

All of these criteria were met and the hatchery occupies about one hectare of a company owned three hectare site. Initially a 1,900m² hatchery was built at a cost of €3 million and the first hatch was pulled in July 2005. By 2010 the hatchery was too small and so it was extended by another 900m² at a cost of €1.5 million.

Interestingly, the hatchery design was conceptualised by Estelle, her father and her husband who specialises in food processing plant design. The outcome was that once the hatchery was built very little needed to be changed! The main features of the hatchery are its biosecurity – anyone entering has to shower and all equipment entering is sanitised. Coupled to this, all supply flocks are screened for salmonella every week. Its environment relies heavily on heat exchangers to reduce electricity costs by some 20-50% and it is designed with staff safety in mind.

As far as incubators are concerned Le Helloco chose Petersime AirStreamers. What factors influenced them in their decision? Firstly, they knew Petersime and secondly they had been to see AirStreamer incubators working in a German hatchery and generally liked what they saw.

They knew that they could rely on Petersime for service and support and another factor that was important was they saw this as a long term investment and they wanted to have a company who would still be there in 10, 20 or more years' time to

service the equipment and supply spares. Maybe this has some roots in the fact that two famous French incubator companies of the recent past are no longer on the scene.

In addition, they ran an eight trolley AirStreamer setter in their former hatchery for a year to learn how to operate the machine – they did not get it right at the outset but by the end of the year they felt that they had mastered the AirStreamer.

With hindsight they were very glad that they went through this exercise rather than to have found themselves one day with a whole hatchery of AirStreamers to run.

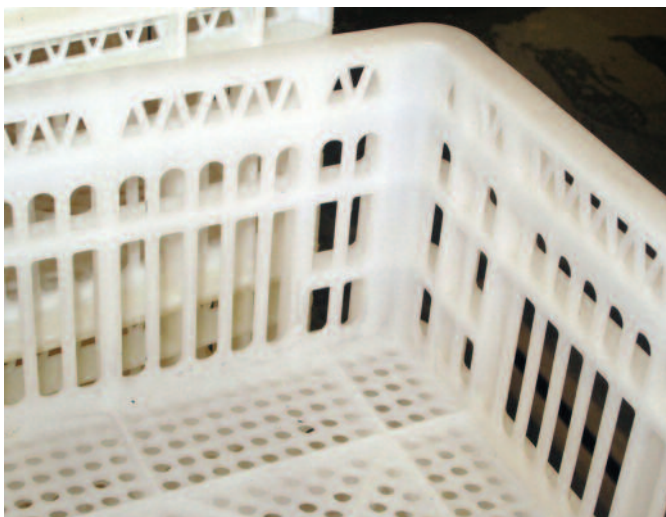
Benefits of a young team

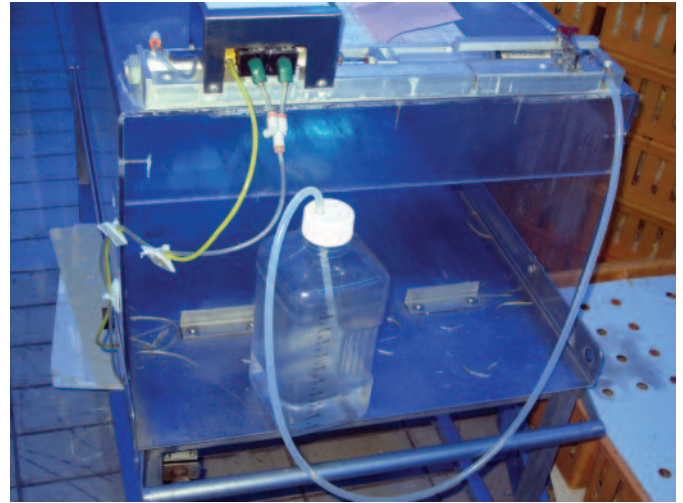
They also found it was very beneficial to have a young team in the hatchery who had no preconceptions about the AirStreamer and they were quick to learn and, more importantly, apply what they had learnt.

Interestingly, Le Helloco's thinking is that the incubator manufacturer should provide the right machine, but it is the hatchery's job

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Hatcher baskets are specially made 2cm deeper for turkeys and, right, note the transparent section in the doors for staff safety.





The Novatech debeaking carousel and, right, the spray vaccination cabinet.

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to make it work (albeit with a little friendly help and assistance).

They found that in their situation what is needed is a short hatch window and a weight loss of 30-34% (calculated as egg weight on setting – poult weight at pulling as a percentage).

If this figure is <32% the number of flip overs is greatly reduced, especially in young flocks, and for poult with a long journey ahead of them, for example poult for export, a 30% figure is preferred because this means there is more moisture in the poult. Fortunately, 85% of French customers are within an hour's drive of the hatchery.

Grouping of flocks

With the AirStreamers it is important to group the eggs of young breeder flocks (first four or five hatches) together in the same machine but after that eggs up to 22nd or 24th week of lay can quite easily be set together. With a flock from the 32nd week

of lay, Le Helloco have hatched over 80% of all eggs set with a fertility level over 90%.

Le Helloco also highlighted that approximately 50% of hatchery man hours go into producing the poult (setting, candling, transfer and poult pulling and processing) and 50% go into cleaning, hygiene and sanitation, and, so, anything that can help to reduce either figure is a bonus. In this context, they find the latest version of the AirStreamer easier to clean.

Eggs coming from the farm enter the hatchery via the 'disinfection lock' where they are sanitised and are then transferred from farm trolleys to setter trolleys.

Both trolleys carry setter trays so it is just a case of transferring setter trays across.

The farm trolleys can take the trays closer together because turning does not occur. They are also more robust, which is important considering how some farmers handle trolleys! Eggs are then stored at a temperature of 13-16°C and a relative humidity of over 50%. On the day we visited the hatchery it was 62%. Eggs from each farm are clearly identified on the trolley and on eggs on each tray within the trolley.

Currently, the hatchery has 25 eight trolley AirStreamer Setters and four 12 trolley machines and all are single stage machines. These are housed in three setter rooms.

Twelfth day candling

On the twelfth day (after the time when maintaining carbon dioxide concentration is important) eggs are candled and infertiles and dead ones removed. For trays used for weight loss calculation this is taken into account when doing the calculation.

On the 24th day eggs are transferred to AS 13H hatchers from Petersime which are in five hatcher rooms and on the 28th day poult are pulled. Then they are sexed, graded, debeaked using a Novatech infrared debeaker and spray vaccinated against turkey rhinotracheitis (avian pneumovirus infection) using a Merial vaccine. They are also held under blue light before shipping.

So, it is obvious to see why Le Helloco's fortunes have risen, while those of the French industry have gone in the opposite direction! ■

Chicks are held in blue light prior to despatch and, right, the heat exchanger unit above the setters in the roof space.

