

Pas Reform take their machines to a new level

Some time ago Pas Reform equipped the Cobroed Hatchery in Holland with their machines and more recently they have installed some of their newest Smart incubators in the hatchery.

To see first hand how these machines are performing and to learn more about Cobroed, International Hatchery Practice recently visited the hatchery.

Currently, the hatchery routinely hatches between 1.5 and 1.7 million chicks and the eggs that produce these chicks come from Dutch farms and, as is



The Cobroed hatchery.

(see photograph) so that the trolley can be raised or lowered as required to make the arduous task of off loading the eggs a much easier one for the staff.

Eggs are autotrayed using a Prinzen machine.

Closely monitored sanitisation

Following trayng the eggs are disinfected using a controlled programme in purposely designed cabinets that ensures that all eggs are thoroughly sanitised.

This system utilises paraformaldehyde and the whole cycle, which includes the warming up stage, the disinfection and the final stage of neutralisation of the chemicals and their extraction, is closely controlled and monitored.

Each disinfection cycle takes approximately 90 minutes. This equipment was

provided by Pas Reform. This operation, like all the others in the hatchery, has written ISO instructions, which the staff follow and which management then confirm and document that they have been adhered to.

Following this eggs are stored at 18°C until they are required for setting.

Small eggs are graded out and these are set separately in some of the older Pas Reform machines.

All the Pas Reform machines have been designed to maximise the recycling of water and heat and, therefore, to maximise efficiency in energy terms.

Candling at day seven is computerised and all clears are removed. At transfer all non-viable embryos are removed, liquefied and sent for use in the pet food trade.

All air coming into the setter room is

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A hydraulic lift set in the floor ensures that all eggs are at an easy level for the hatchery staff to process.

required by Dutch law, each egg is stamped with the farm's unique number.

Eggs are shipped into the hatchery on cardboard Keyes trays, as it is felt that keeping the setter trays and setter trolleys in the hatchery at all times helps to enhance biosecurity. Trolleys containing these eggs are placed on a hydraulic lift

The eggs are fumigated in these cabinets prior to setting.



The eggs on receipt at the store.





Eggs leaving the transfer machine in hatcher baskets.

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cleaned and climatized and enters via the ceiling. All the setters include Pas Reform's SmartDrive controls, which enable each machine's data to be evaluated individually or centrally on a computer that is linked to all the machines.

The new SmartSet Setters are very efficient and can heat or cool their environment, and hence the eggs, from the same coils.

This is important as, for the bigger eggs being produced by today's breeds, there

can be up to 25% more metabolic heat in the machine that needs to be promptly and effectively controlled and managed.

Providing this is done, better hatchabilities are routinely achievable. This is done by managing the setter by sections rather than as one big machine! These new machines can be programmed and managed by section.

These setters are still 'all in, all out' or 'single set' machines, but this ability to programme by section provides a greater flexibility when it comes to setting eggs.



Left, removing non-fertiles at transfer and, right, they are immediately converted to liquid product which is removed in large stainless steel vats.

The original Pas Reform setters.





The new generation of Pas Reform setters with their new control panels and inspection window.

In addition, this new model is very easy to clean, very easy for the hatchery staff to work and has a very user friendly control panel that relies on icons.

All the air handling equipment is located in the roof space making it easily accessible for engineers who do not need to enter the hatchery proper.

As can be seen in the photograph staff can actually look into the setter to see everything is proceeding satisfactorily and, although there is no need to do this, it has been found that the hatchery staff like to be able to see what is happening.

The same can be said for the hatchers and here visual inspection is a more valuable tool for management.

The hatcher rooms have an elevated air pressure and the hatchers have a fluff tunnel behind them.

With the machine configurations at Cobroed one setter (115,200 eggs) feeds its eggs at transfer into six hatchers, each of which holds 19,200 eggs.

At pulling, Innovatec equipment is

used and on a 'good day' this regularly exceeds 60,000 chicks processed per hour.



Another successful hatch!

Chicks are only vaccinated against infectious bronchitis and once boxed are stored prior to despatch in a room with blue light.

This is because it is felt that the blue light has a calming influence on the chicks. No sexing is undertaken as the

Dutch tend to rear their broilers 'as hatched'.

So, let's bring the facts together. The new generation of Pas Reform machines have the cooling and heating functions in the same coil(s) and so the microclimate in them is more homogeneous and easier to manage.

'Bad incubation' is virtually impossible and this is reflected in hatchability figures and chick quality.

These machines have larger capacities but, as they are controlled by section, they do not have the problems that could occur in larger ones.

In addition, the controls are user friendly and the machines are easier to clean. In the hatchers, for example, the cooling system is incorporated into the walls, thereby removing that tedious task of trying to clean cooling coils or other cooling mechanisms.

The monitoring and recording systems mean that they are better able to manage the whole incubation process and, thereby, beneficially reduce the hatch window and this, in turn, is reflected in better seven day chick uniformity. ■

The new generation of Pas Reform SmartHatch hatchers with their new control panels and inspection window.

