

EXERGEN SCANNER D501-LN HELPS “YELLOW BIRD” TURN THEIR CONCEPT “NESTBORN” FROM ANIMAL WELFARE INTO PROFIT

**Manually Determine Eggshell Temperature to Ensure Optimal Conditions for Embryo
Temperature for Chicks to Hatch**

WATERTOWN, Mass. And ZIJTAART, the Netherlands - Exergen Global, an award-winning thermal solutions provider, announced that “YELLOW BIRD” group, creators of the innovative NestBorn concept, is using Exergen’s D501-LN handheld precision microscanner as part of their solution, to ensure that pre-incubated chick eggs can hatch safely and naturally in the poultry farmer’s stable.

The NestBorn concept

NestBorn (www.nestborn.eu) is a revolutionary on-farm hatching concept with focus on broiler welfare and sustainability. Without need for specific installations or investments in the broiler house, pre-incubated eggs are gently but fully automated placed on a natural litter bed.

A NestBorn Monitoring Platform, with OVOSCAN sensor between the eggs, allows monitoring of the complete hatching process in real time and from a distance. Shell temperature and humidity are essential to control as during hatching an eggshell temperature between 36.1°C – 37.5°C (97°F - 100°F) is targeted. If necessary, air temperature and humidity of the house can be adapted where needed.

Before the NestBorn concept

The eggs were hatched in a hatchery and the chicks were transported once they were born, causing a significant amount of stress. Not only transportation but also the fact that they were deprived for some time of feed, water and light diminishing the chicks’ welfare and creating health challenges. The NestBorn system immediately took all those disadvantages away and provided a very accessible way to engage into on-farm hatching, for both hatcheries and broiler farmers.

Ovoscan

With Ovoscan, scanning equipment developed for this purpose by Petersime, the eggshell temperature and humidity are monitored during the hatching period and the data is fed back in real time to the hatchery and poultry farmer. For approximately 40,000 eggs, 8 places will be strategically picked where 4 eggs will be measured with every Ovoscan. The scanning takes place via Internet and Bluetooth.

Additional back-up of Exergen’s D501-LN microscanner

Exergen’s handheld precision microscanners are used as a tool to measure the temperature of the pre-incubated eggs in the broiler house as a back-up to the NestBorn platform solution in case of an unstable Internet or Bluetooth connection. The farmer will execute manually an additional temperature check of the eggshell of the eggs as controlling the temperature during the hatching process is of the essence.

Eggs hatch gradually

The hatching of the eggs takes place gradually. The eighteen-day hatching eggs are laid in an area with

thicker litter in order to keep them at the right temperature. Then it is waiting. The first chicks actually hatch after one day, most of them on the second day and on the 21st day also the last chicks hatch.

In the first days it is mainly a matter of good monitoring. Is everything working properly and is the temperature at the right level?

Benefits

The moment the chicks hatch, the first thing they look for is feed. As soon as they are dry, they start eating. The big advantage is that the intestinal function starts immediately. It seems as if they give that extra resistance and other bacteria like enterococci hardly any chance. Therefore, less need for antibiotics, less stress, more healthy chicks with a capacity to perform optimally during the growing cycle.

“Hatching is a delicate process and controlling the exact right temperature in those 3 hatching days in the broiler house is mandatory. Exergen’s D501-LN handheld precision microscanner, together with our NestBorn Monitoring platform, provides the accuracy for our need to optimally hatch on-farm. Its handheld form factor, measurement speed and repeatability is ideally suited for our complete solution we offer to our farmers,” said Erik Hoeven, Head Research & Development of Yellow Bird. “This complete solution delivers positive results for all parties in the production chain, and, as a result the sustainability of the poultry sector as a whole is increased. The fact that the D501-LN microscanner cancels out background errors makes it very accurate and reliable. The scanner delivers accurate readings time and time again, which is an essential asset in our total NestBorn concept”, he added.

“Animal friendly solutions that help not only decrease stress but also decrease the use of antibiotics makes us very proud to be able to help with. We are excited to be working with Yellow Bird to support this great concept and platform,” said Bram Stelt, CEO, Exergen Global. “The use of our D501-LN microscanner is another example of the versatility and reliability of Exergen’s thermal management solutions.”

About the Exergen D501-LN microscanner

Exergen’s D501-LN handheld certified infrared microscanner is designed to deliver the industry’s best possible temperature measurement accuracy. The microscanners are infrared instruments that are certified with NIST-traceable accuracy on real surfaces of unknown emissivity, and are completely free of the contact, friction heating, time-based and heat syncing errors common in contact devices.

The D-Series non-contact scanners measure surface temperature in a fraction of a second, while contact probes (thermocouples, RTD’s, thermistors, etc.) require several minutes to achieve equilibrium. The D501-LN microscanner is free of any emissivity errors, emissivity shift errors or background reflection errors. The devices do not require any calibration or user adjustments, and have an interchangeability rate of $\pm 1\%$, resolution of 0.1°C and unmatched repeatability of 0.1°C .

About Yellow Bird

“Yellow Bird” is a leading Belgian hatchery Group where the third generation is currently at the helm. In their hatcheries in Belgium (Belgabroed, Vervaeke-Belavi, L’Oeuf d’Or) and The Netherlands (van Hulst) about 180 million chicks – of various breeds – are born every year. They supply customers in France, Belgium, Germany and the Netherlands. They invented the innovative NestBorn-system which is leading to a silent revolution within their branch, more and more poultry farmers are switching to NestBorn providing a healthier and better life to chicks with less stress and a much lower use of antibiotics.

About Exergen Corporation and Exergen Global

Exergen Corporation, the global leader in industrial and medical non-invasive temperature technology, provides non-invasive temperature measurement devices providing cost effective, higher accuracy, less invasiveness, and greater reliability than ever previously possible. Exergen is well known for its award-winning temporal artery thermometer in the healthcare and consumer markets. The company was founded by Harvard-research scientist Dr. Francesco Pompei, who holds over 70 patents. Exergen Corporation is based in Watertown, Massachusetts, U.S. Exergen Global, an HP Strategic Partner for 2017, is the worldwide solutions provider of Exergen Corporation's industrial non- contact infrared temperature sensor solutions.

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