



The Next Nest hatchery system offers poultry immediate access to water. (Courtesy Next Nest)

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Turkey hatchery places emphasis on animal welfare

Next Nest technology immediately introduces poults to feed, light and water

A new turkey hatchery system that places more emphasis on animal welfare in the earlier stages of life is designed to set poults up with a good foundation to thrive as they grow into adult turkeys.

Adapted from the HatchCare system that has hatched billions of chickens, Next Nest Hatching has partnered with HatchTech to bring the turkey industry their own version of the system, giving newborn poults something turkey hatcheries previously have not offered: immediate access to light, feed and water.

The concept had been proven for broilers, but it took a meeting of the minds between Rick Huisinga, CEO of Life-Science Innovations, and Tjitze Meter, CEO of [HatchTech](#), to get the idea off the ground.

“Both are very innovative, entrepreneurial guys, and were comparing notes on the research that they were each doing. Tjitze said they had figured out a really promising technology on the chicken side with feed and water at hatch, and Rick asked when they could get one to test with turkeys,” explained Jonathan Huisinga, general manager of Next Nest, a new company that formed under the umbrella of Life Science Innovations.

Tjitze wasn't initially interested, but when Rick Huisinga suggested they work on it together, he agreed.

The benefits of early feed, water and light

“HatchCare is unique in that it has feed, light and water. Most hatcheries are typically hatching in the dark, and of course there's no nutrition or hydration available,” said Life-Science Innovations sales director Peter Gruhl, who introduced the Next Nest technology during a TechTalk at the 2023 [International Production & Processing Expo](#) (IPPE). “This is a nice, bright environment, so as soon as the poults hatch, they can go and drink and eat.”

In a standard hatcher, poults survive off the yolk sac for the first few days of life. However, providing that external water and feed has definite advantages for the poult. Immediate nutrition establishes a healthy gut and a strong base for growth; this sets birds up for good health throughout their growing cycle to full maturity.

“From both an animal welfare and bottom-line perspective, this is going to be a huge, huge improvement. (With traditional hatchery systems) birds rely on the egg yolk sac, so it's not like they don't have some way to get sustenance, but feed and water is a much improved alternative,” said Jonathan Huisinga.

The yolk sac can instead be used for creating a better immune system and building the intestines, making that a better utilization of the yolk sac, Gruhl added.

And because water is already there for the poults to drink, hatchery operators don't need to worry about keeping such a high humidity level and CO₂ levels.



Poults are offered feed with the Next Nest hatchery system. (Courtesy Next Nest)

Emphasis on ventilation and temperature regulation

With the NextNest hatcher, there is fresh air is injected where it is needed, and exchanging air that's constantly monitored and moving, Huisinga explained.

“One of the first things that most people who spend their time working in hatcheries say when they walk into our facility and are in these hatchers is ‘where’s all the fluff?’ There’s usually a coating of fluff on everything in these areas of the hatchery. These HatchCare units have a cyclone-type air collecting system, where the vast majority of the fluff is collected and pulled out of the air,” said Huisinga.

“It’s just a nice added feature for extra cleanliness.”

All air brought into the Next Nest facility is heavily filtered.

Along the walls of the hatchers are radiators, and those radiators also read the heat in each section of the hatcher and can adjust the temperature to optimize for the eggs in each section as the air flows through. It uses a patented technology from HatchTech that can reverse the airflow, flowing either clockwise or counter-clockwise.

“It does a really nice job of keeping everything on target temperature,” Huisinga explained.

Tests with Next Nest show effectiveness

Over the past two years, Next Nest has done more than 100 hatching trials of varying sizes. The smaller trials have involved a few hundred birds, while the largest have involved as many as 60,000 poults. Huisinga estimates about a half a million poults have been hatched as of early March.

The results, Huisinga said have been very consistent, and “very regularly beating” the standard hatchers in control studies by about 2%.

These trials have also shown a 37% increase on poult weight upon departure from the hatchery and a 26% increase in seven-day body weight. The field performance from poults hatched through Next Nest have shown a 2% increase in livability, an increase of 0.9% in live weight upon processing and an improved feed conversion ratio (FCR).

“We’re able to get these toms to grow to the same weight with approximately two pounds less feed for 240 days, which is a considerable improvement economically, but also your environmental carbon footprint. These are all good things,” said Gruhl.

The first Next Nest facility

Presently, Next Nest has been operating out of a small hatchery, called Nest One, in Willmar, Minnesota. The space presently being utilized measures 10,000 square feet. However, the company is in the process of expanding it to 110,000 square feet.



A cart full of baskets filled with newly hatched poult from the turkey HatchCare system is being removed. (Courtesy Next Nest)

Husinga said a third to a half of the building was constructed, “before winter shut us down.”

“This winter we’re working inside the new part of the building, installing concrete floors, electricity and getting a start on the ventilation. We’ll receive automation equipment that’s coming out of Europe. As soon as that’s installed, we’ll be in full production in the first quarter of next year,” said Husinga.

The demand for pullets hatched out of Hatch One is already there, with Husinga saying, “that whole building worth of pullets has already been fully contracted out.”

Other Next Nest hatcheries?

Husinga and Gruhl do not intend for Nest One to be the only hatchery to have the Next Nest technology.

In fact, Gruhl said they are also selling the technology to other hatcheries in the turkey industry.

“We initially started looking at it just for ourselves and our own operation. But there’s just so much advantage here,” said Husinga. “We went back to HatchTech and said we’ve got the turkey expertise, and between Peter and Rick, they know most of the turkey producers in the world. We asked if they would be interested in partnering with us so we can help expand turkey HatchCare use across the industry, and they said that would be great,” said Husinga, adding that Next Nest is the exclusive worldwide distributor for turkey HatchCare.

“We’re not doing all of this work just for ourselves,” added Gruhl. “One of my main responsibilities is selling this opportunity to turkey hatcheries globally, and I’ve been visiting potential poult customers and updating them as well. We’re not just equipment manufacturers. We’ve been turkey producers for over 75 years and know that the turkey industry needs to continue to innovate and improve. We want to be leaders in bringing real, positive, bottom-line improvement to the industry.”

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