



Mark Cornelissen, Global Hatchery Specialist, ISA

ISA Layer Parent Stock hatchery

Boxmeer, The Netherlands

Egg setting line



Disinfection room



SmartSetPro™



Institut de Sélection Animale

ISA is a leading breeder and distributor of white and brown egg layers, suitable both for traditional and alternative production systems in diverse climates.

As part of the international, multi-species breeding company Hendrix Genetics, ISA is committed to value creation, collaboration, innovation and sustainability. This is achieved by breeding for increased egg production from hens with a longer economic life, which requires the less frequent replacement of flocks.



Sustainable hatchery: a vision for the future

Vision 2020 is Hendrix Genetics' comprehensive sustainability programme, structured around three key building blocks: Animals, People and Planet.

In 2012, as part of its commitment to the *Vision 2020* programme, ISA's Layers Business Unit, led by Production Director Ron Jöerissen, invested in a new, state-of-the-art, sustainable parent stock hatchery.

The new hatchery's aim was to generate results from the very beginning of the egg value chain, by delivering returns in the third building block: Planet.

Measured in terms of environmental impact, the responsible use of antibiotics and the efficient use of resources, the challenge for the new hatchery was to strengthen production, energy saving, efficiency and biosecurity, while also increasing hatching capacity by 25 per cent, to produce c. 4.5 million Layer Parent Stock each year.

Innovation & precision

Monitoring and maintaining precise, varying environmental conditions throughout the incubation process is critical. ISA's new hatchery features a fully integrated, web-based Building Management System, that controls more than 700 contact points for temperature, air pressure, airflow, humidity and CO₂ levels.

Four primary air handling units maintain and optimise specific climates throughout the facility, pre-conditioning incoming fresh air to the exact temperature, humidity and pressure requirements of every room in centralized air tunnels. Each incubator is supplied individually with fresh air directly from these tunnels and air exhaust plena are located to avoid the cross-contamination of incoming air.



Smart recovery for energy efficiency

This level of climate control requires energy - and the ISA hatchery was designed with energy efficiency as a priority.

An advanced heat recovery system reuses heat from apparatus and cooling water to warm incoming fresh air, floor heating and tap water. Double insulation and a heat tube solar system on the building's roof capture energy from sunlight to heat water. The entire attic area of the 4,080 m² facility can be warmed with heat recovered from exhaust air from the hatchery's setters - and a heat exchanger in the technical room recovers hot air from air pressure generators, to feed it back into the system.

Energy saving features are incorporated into all hatchery equipment. Each of the 68 incubators feature the Energy Saving Module™ (ESM™) - and because the number of hatching eggs in the hatchery at any one time can vary, regulated speed control is a feature of all pumps, proportionally regulated air handling units and exhaust fans, to ensure that energy use is perfectly aligned with this variation. Hot air dryers run on natural gas and washers are equipped with heat exchangers connected to the heat recovery system.

Bio-security

Biosecurity is enhanced by a strictly one-way product flow and an access-controlled vaccine preparation room, which is isolated to prevent contamination.

Inspiring change with evidence

ISA's new, sustainable hatchery has created genuine excitement and an influx of enquiries, not only about the equipment, specifications and capabilities of the building, but also regarding its development and building process.

Energy savings of 35 per cent are, says Ron Jöerissen, complemented by the highest levels of biosecurity and the most streamlined product flow and process efficiencies of any of ISA's hatcheries worldwide.

Total production costs per chick, in terms of Cost of Sale (COS) and Operating Expenditures (OPEX), are 30 per cent lower than with the previous hatchery.



“The unique combination of innovations has transformed the Boxmeer facility, achieving significant reductions in heating and energy costs, and outstanding results with enhanced bio-security and improved product flows and processing.

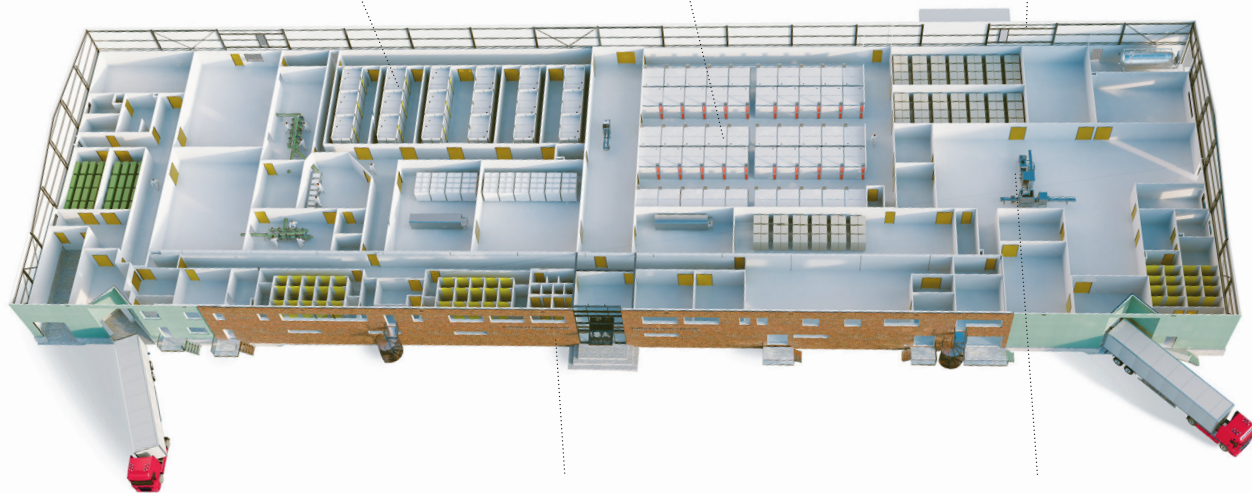
“In its first year of operation, the hatchery is already demonstrating unparalleled sustainability and a significant ROI, both for the environment and for our producers, which we regard as the only way forward.”

*Mark Cornelissen,
Global Hatchery Specialist, ISA*

18 SmartHatchPro™
hatchers, divided across
five hatcher rooms, to
deliver a total weekly

50 SmartSetPro™-1 setters,
divided across three setter
rooms to deliver a setting
capacity of 960,000 eggs

Air handling is managed by
four separate air handling
units, each injecting
conditioned air into setter
and hatcher plenums



Hatchery capacity:
4.5 million Layer Parent
Stock each year

Egg setting line, including
point setting, automatic
de-stacking and electronic
weight grading with data
analysis

Contact:

Institut de Sélection Animale BV

Villa 'de Körver', Spoorstraat 69, 5831 CK Boxmeer

P.O. Box 114, 5830 AC Boxmeer

The Netherlands

Phone +31 485 319 111

Fax +31 485 319 112

www.isapoultry.com

Pas Reform Hatchery Technologies

Pas Reform is an international company, which has specialised in the development of innovative hatchery technologies for the poultry sector since 1919.

The company has earned its position as one of the world's leading hatchery equipment manufacturers, through decades of research into the biological and physiological aspects of embryo development, combined with a thorough understanding of all aspects of the poultry production chain – and a dedicated focus on the future.



Pas Reform Hatchery Technologies

Pas Reform
P.O. Box 2
7038 ZG Zeddam
The Netherlands

Phone +31 314 659 111
Fax +31 314 652 575
E-mail info@pasreform.com
Internet www.pasreform.com



www.twitter.com/pasreform
www.linkedin.com/company/pas-reform-hatchery-technologies
www.youtube.com/pasreformbv
www.flickr.com/pasreform