Sustainable egg production

The laying hen sector has had to face many challenges in the past decade, including disease outbreaks and concerns over animal welfare. In cooperation with Wageningen University and other partners, Rondeel company (The Netherlands) thought up a new housing system for laying hens which would be able to provide solutions to these challenges and would also be economically viable. Their patented round building design resembles the birds’ natural habitat and means they can indulge in their natural behaviour.

Combining social, economic and ecological aspects

In 2005-2006, a study was carried out by Wageningen University called Keeping and Loving Hens, aimed at creating a sustainable future for the layer industry. The research team looked into the differing dynamics of corporate social responsibility, the needs of the laying hens and the ideal working conditions for the poultry farmer. A number of different designs of new forms of housing and keeping laying hens were drawn up, including the Rondeel design.

With the participation of a number of partners and a private investor, a patent was registered and the company set up. The Rondeel company focuses on social, economic and ecological aspects: animal welfare, food safety, fair revenues throughout the supply chain, low ammonia, low CO2 emissions and biodegradable packaging. A number of farmers have decided to invest in the building of a Rondeel facility (the housing system) on their farms. Peter Koelewijn, General Manager of Rondeel told us “The franchise farmers co-operate with us in the marketing of the eggs by being ambassadors as open farms with the aim to giving a steady future in egg-business and prices”. The small company is only aiming to grow at the pace of the demand for eggs, “The concept is based on animal welfare, giving the poultry keeper a good income with a limited number of hens” Peter concluded. A fifth Rondeel facility is currently being built in Vaassen (near Apeldoorn).

The design includes the possibility for visitors to visit the facilities. Welcoming visitors is part of the company’s corporate social responsibility strategy.

Mr Brandsen, the first farmer to build a Rondeel building said “As a farmer it gives a lot of satisfaction to see the hens having natural life and behaviour. I learnt a lot more about how to work with and understand the hens instead of controlling a system, giving more job satisfaction. Also, the large number of visitors taught me a lot more about how our society thinks about poultry. The concept works both ways.”

The building: Providing a natural environment for laying hens

1. The NIGHT QUARTERS provide living space for the primary needs of the hens: eating, drinking, resting and laying eggs. In this area existing technology in the poultry sector, such as laying nests, aviary system etc., have been used.
2. The DAY QUARTERS provide space for the hens to indulge in their natural behaviour such as foraging and dust bathing. The natural world has been brought indoors. A unique feature of the system is the insulated blind which acts as a side wall and which can be completely rolled up.
This creates a uniform climate between the day and night quarters. This encourages more birds to use the foraging area to range and dustbathe than in customary systems.

3. The **Wooded Area** also creates a natural environment for the hens so they can forage, explore and find shelter. Should a calamity occur (for example, an outbreak of avian influenza) which requires the hens to be confined, this wooded area can be closed off. However the hens can still access the foraging area where their natural needs will be satisfied. This is another unique feature of the Roundel in comparison with other housing systems!

4. The **Central Core** consists of three areas:
   - The ground floor is the working area for the poultry farmer.
   - The first floor accommodates an area where visitors can see how the system works. This visitor facility covers an area of 150 m2. From here visitors can proceed through a glass tunnel at the same level as where the hens are housed in one of the living areas.
   - The second floor houses two heat exchangers, which are used to control the climate in the night quarters and to pre-dry and dry the manure the birds produce.

**Corporate social responsibility**

Animal welfare, respect for the environment, suitability of the landscape, food safety, public health, transparency towards society, a fair income for poultry farmers, were all considered as essential in the development of the Rondeel design and company. The hens are raised with respect for animal welfare and the environment, based on conditions that fulfil all the natural needs of the birds. Research has been carried out in the existing Rondeel facilities to guarantee this is continuing to happen.

It has been recognised by a number of organisations for its animal welfare and environmental standard. It has received the Dutch Society for the Protection of Animals ‘Better Life quality mark’ and Natuur en Milieu said their eggs were “The best eggs, sustainable and animal friendly.” It has also received international recognition by organisations such as Compassion in World Farming, Freedom Food, RSPCA, Tierschutz and MilieuKeur (SMK).

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