

**Important factors
for optimal wellbeing
of broilers and
maximizing value
for farmers.**

Whitepaper

Index

Introduction	3
<hr/>	
1 The three biggest challenges	
<hr/>	
for broiler farmers	5
<hr/>	
2 How to ensure the highest-quality poultry	6
<hr/>	
2.1 Temperature	7
<hr/>	
2.2 Environment	8
<hr/>	
2.3 Climate	9
<hr/>	
3. Solutions for full climate-control	10
<hr/>	
1-on-1 calculation with our climate expert	12
<hr/>	
4 Steps to broiler breeding success	13
<hr/>	
About Vencomatic Group	15
<hr/>	

Introduction

Every broiler farmer wants to produce the best possible quality poultry for the best price. There are many different factors that can affect the wellbeing of the broiler flock, and by extension the overall end product and poultry quality for broiler farmers. The most important factors are **temperature**, the **environment** and the **climate** of the farm or the broiler house. Each of these elements is essential to save costs, raise healthy animals and keep the business running at high efficiency from day to day.

For a broiler breeder, ensuring poultry quality starts with a healthy and happy flock that is maintained in ideal conditions for the duration of the lifecycle from egg to maturity. This is the key ingredient that can guarantee high-quality poultry. But every flock is different, and getting the conditions just right relies heavily on the breeder's ability to adjust and control the climate to ensure the comfort, health and wellbeing of each bird.

“Poultry quality starts with the health and wellbeing of the flock from the very beginning.”

- Gust Fleerackers, Vencomatic poultry specialist

By optimising these factors with holistic climate control, broiler farmers will not only save money and energy but also secure peace of mind and better results. In this white paper you will learn everything you need to know about the 3 most important factors to ensure poultry quality and get the best possible results out of your broilers.

It will cover the challenges faced by broiler farmers, the factors that enhance poultry quality, and the necessary steps to implement recommendations and solutions to produce outstanding quality poultry products.



1 The three biggest challenges **for broiler farmers**

Success in broiler farming can be measured in a number of ways and is highly personal to each farmer. It could be the greater financial returns, positive feedback from customers, or a record-breaking flock. No matter what the individual measure of success, to see these positive returns and good results farmers need to navigate numerous challenges. If unchecked, these challenges can create an additional financial burden and hinder the success of the business.

For all broiler farmers, the first and most pressing challenge is keeping running costs and energy expenses as low as possible. Getting the maximum returns with the most efficient methods is high on the agenda of many broiler farmers. With energy prices surging in many parts of the world, finding energy efficient ways to breed and produce poultry is increasingly important. This includes eliminating gas leakage from heating or ventilation systems to minimise costs.

Secondly, keeping the broiler house hygienic to meet health and safety standards is a key challenge broiler farmers face. Farming poultry can be a health risk not only for the broiler, but for the birds, which, in less than sanitary conditions,

are prone to outbreak of diseases such as the recent bird flu that has been detected in a number of broiler houses.

Avoiding costly diseases and bacterial contamination of the flock is a challenge that takes particular priority. Unhealthy broilers can ruin the end poultry product, which creates a financial burden to broiler farmers as they take on the sunk cost of the compromised flock and undertake efforts to sanitise the broiler house.

The overall goal of a broiler breeder is to produce quality poultry products. However, this is not possible without maintaining a healthy flock that is able to exhibit natural behaviours and live comfortably with a high quality of life. Providing this is also a challenge for which there is no one-size-fits-all solution. However, there are steps that can be taken to help farmers figure out what the ideal set up for their particular farm or boiler house looks like. How to do this will be explained in detail in the next chapter.

Without finding and implementing measures to minimise these challenges, broiler farmers face an uphill battle to produce poultry that sustains a profitable business. The key to addressing and avoiding all of these challenges is prioritising poultry quality.



2 How to ensure the highest- quality poultry

Taking a holistic approach to poultry quality starts with their quality of life, which is enhanced by three key variables. These are the combination of the temperature, the environment and the climate in which the flock is kept. Together, these variables have the most impact overall on the broiler's wellbeing, and in turn, the quality of the poultry that is produced.

Each of these elements can significantly influence the end results. But by carefully managing them, broiler farmers can optimise their results, reduce the running costs of the farm and avoid the costly challenges covered in the previous chapter.

“Every broiler farmer is also a climate specialist”

Gust Fleerackers, Vencomatic poultry specialist

Chapter 2.1: Temperature

Maintaining the ideal temperature is a vital element to raising healthy broilers and producing high-quality poultry. The broiler house temperature must be controlled and adjusted at different stages of the broiler's life for best results.

Broilers are very sensitive to the temperature of their environment, starting from when they are day-old chicks. When arriving at the broiler house, the ideal

temperature for day-old birds must be between 32 and 33 degrees Celsius. As they develop, the broiler house temperature must be closely monitored and adjusted to suit the needs of each particular flock. Observing the behaviour of the birds will help farmers gauge whether the room temperature is comfortable to ensure their wellbeing and health. Although each bird is different, it is generally advised that a good temperature in broiler houses, should be around 28 degrees Celsius for the floor temperature, with the room temperature being a little higher.

Ensuring optimum temperatures is vital. Without the necessary infrastructure to optimise the temperature, the flock will be uncomfortable and exhibit telling behaviours such as being huddled together in a single spot without moving, or may be avoiding returning to the broiler house once outside. If the temperature is too hot or too cold in the broiler house this can also create the risk of bacteria and disease that can endanger the flock and make poultry low quality or unsafe. This in turn can lead to financial losses for broiler farmers and further measures needing to be taken to address the sanitation of the broiler house - which can be costly and time consuming.

Regularly checking, adjusting and ensuring the ideal temperature for the comfort, wellbeing and development of broilers is a vital component of high-quality poultry.

Chapter 2.2: Environment

For the flock, the broiler house is the environment that can sustain and nurture them throughout the duration of their life. The best way to ensure that their quality of life is good is to create an environment in which the broilers can act naturally, interact with their surroundings and move freely throughout the space.

Healthy, well maintained birds will exhibit natural and curious behaviours such as feeding, roaming around the broiler house and, if permitted, any outdoor space. They

will be interested in their environment and should not be staying put in one place for long periods.

It is the broiler breeder's responsibility to ensure that the birds three basic needs must be met within the broiler house environment in order for them to be healthy, move freely and behave naturally. These basic needs are feed, water and fresh air.

To stimulate the healthy growth and development of the birds, feed must be readily available to the flock, and the same is true for water to keep them fed and hydrated. The broiler house must be well ventilated to increase the circulation of fresh air. They may also be encouraged to spend time during the daylight hours outside in an open air environment. Here they face predators, and so it is in the breeder's interest to ensure they are surveilled closely and protected from any potential threats.

By guaranteeing the comfort and safety of the flock in their environment, farmers eliminate many risks to their operations including loss of produce to predators, disease spreading and malnourished birds.



Chapter 2.3: Climate

Every broiler farmer is also a climate specialist. This is the long held belief of poultry experts at Vencomatic. This is because the climate broilers are raised in is essentially the most vital factor that can influence the quality of the poultry they produce. Fortunately, there are a suite of solutions that farmers can access to create the optimum climate conditions for the flock with minimal cost and installation.

When it comes to climate, the key factor to consider is the location of the broiler house. Is it in a warm climate? Are the broilers likely to get too hot or too cold? Is it in a location that sees high rainfall? Are the birds at risk of being kept in wet conditions that could harbour bacteria and disease? Are there times when they will be unable to go outside due to climate risks such as severe weather? By understanding these questions and evaluating the climate of the broiler house, farmers can better manage the conditions for the flock and anticipate any challenges.

One of the most important factors to consider is whether the climate is too dry or too wet. It is usually preferable to have a climate that is closer to being too dry than too wet. Excess moisture in the broiler house is a breeding ground for bacteria that can create unhygienic conditions. However, with the right climate control solutions, it is possible to ventilate the broiler house to maintain a dry climate regardless of the weather or humidity outside the house. This is the foundation of a safe, clean environment for the broilers that enhances their wellbeing as they grow.

3 Solutions for full climate-control




The benefits of Vencomatic's innovative ECO climate solutions for broiler houses are clear. With climate control solutions, farmers can have confidence that the three most important variables to ensure high quality poultry are taken care of.

Not every broiler breeder will require the same climate conditions and each will have unique considerations that will affect their set up. Regardless, it is still essential to have a climate and get the right temperature in the broiler house for the best growing conditions for your birds.

One of the innovative solutions Vencomatic recommends to give broiler farmers maximum return climate control for their flock in the ECO Unit. The ECO Unit is a heat exchanger that creates a **healthy climate** with minimum ventilation in the broiler house. The health and overall quality of your birds can improve due to a consistent flow of healthy, clean air. Each unit recovers up to 80% of heat. Warm exhaust air from inside passes the fresh cool air from outside by going through up to 1,325 m² of contact surfaces inside the heart of the ECO Unit.

An additional benefit is that your FCR and litter quality will improve, and your ammonia emissions will even decrease by 35%. The ECO Unit can circulate up to 30,000 m³ of air an hour and has higher performance ratios vs. smaller heat exchangers. Moreover, gas prices are surging and unpredictable. This makes it difficult for broiler farmers to forecast long term costs and predict bottomline business expenditure. By investing in the Vencomatic ECO Unit can significantly reduce your gas costs and help reduce uncertainty around energy expenses, so you can focus on raising the healthiest possible birds.



1-on-1 calculation with our climate expert

and find out how much
money you can save
on your gas bill!

As specialists in the poultry sector, Vencomatic can help you optimise your broiler house climate, save money and get the best results with ECO Unit - climate control. In a one-on-one calculation you will discover how the ECO Unit can help you reduce gas costs significantly.

Get in touch to discover which solutions will help maximise your poultry quality for the best possible price.

[Get your free savings calculation here](#)

4 Steps to broiler breeding success



Producing high quality poultry efficiently is an important task. One of the world's biggest challenges is how to feed the growing population whilst lessening the burden on the earth's ecosystems and decreasing the use of natural resources.

This is a challenge that broiler farmers around the world will tackle, each facing vastly different conditions and each striving to be as cost efficient and sustainable as possible. There are many considerations each breeder will be faced with in order to successfully balance the operation of a successful business with the lowest possible environmental impact, all while trying to achieve the highest animal welfare levels.

As outlined in this white paper, ensuring poultry quality must be a priority from the very beginning for farmers who want to get the best end product. It all starts with a healthy and happy flock, housed in ideal conditions for the duration of the lifecycle from egg to maturity. Creating and maintaining these conditions is critical for the long term success of raising poultry quality.

To achieve this, the breeder's ability to adjust and control the climate to ensure the comfort, health and wellbeing of each bird is vital. The combination of the temperature,

the environment and the climate in which the flock is kept together have the most impact overall on the bird's wellbeing, and in turn, the quality of the poultry that is produced.

The benefits of Vencomatic's groundbreaking ECO climate solutions for broiler houses are clear. With easy operations and maintenance, it offers broiler farmers full climate control and enable them to:

- Control airflow with minimal ventilation
- Control temperature inside the broiler house at every stage of the birds' development
- Run day to day business efficiently with minimal resource wastage and environmental impact
- Reduce risks of bacterial growth and infectious diseases due to unhygienic conditions
- Attain peace of mind that their flock is in an ideal that will foster their development and wellbeing

Vencomatic climate control solutions give farmers confidence that the three most important variables to ensure high quality poultry are taken care of.

Vencomatic Group

Since our inception in 1983, Vencomatic Group has been a pioneer in the poultry sector. The Mission of the family-business is to build a versatile and sustainable poultry industry for our future generations.

The story began in the Netherlands with a breakthrough innovation for breeder housing: the first automatic breeder nest. At that time a revolutionary idea as this was the first automatic nest box in the market. Since then, Vencomatic has developed products for many other types of poultry including: turkeys, layers, ducks and broilers. All products are developed based on a thorough understanding of the behaviour of birds and the course of business at a poultry farm. This ensures our products suit the needs of birds and poultry managers. To further complement the range of products, Prinzen (egg handling), Agro Supply (climate solutions) and Van Gent (laying nests) were added to the portfolio. Together these brands offer a full range of products for modern poultry farms all over the world.

With over 500 committed employees, Vencomatic Group serves thousands of customers. Together with our local branches and dealers we can optimally fulfil the requirements of our customers in all parts of the world. Our local partners ensure knowledge of specific local requirements and offer top of the line advice, installation and service.