

## Managing Egg Size

How to balance bird welfare with the public's taste for large eggs?



*Advancing Poultry Performance*

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# 1. Introduction

## Size Matters: Balancing bird welfare with the public's taste for large eggs

The UK egg market is seeing a surge in demand for large eggs (63-73g) and a widening gap in prices paid to producers for large and medium sized eggs.

Whilst this provides an incentive for poultry farmers to increase the proportion of large eggs laid by their flocks, the question remains as to how far this can go before welfare issues become a factor.

In this eBook we take look at the variables that influence egg size and the steps that farmers can take to meet the public's love affair with large eggs, whilst ensuring that bird welfare remains paramount.

“We tried increasing the level of some nutrients in the feed and six weeks later the flock was meeting its breed targets for large eggs.”

— Sharon Barnard,  
The Old Dairy Farm.



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## 2. Variables Influencing Egg Size

### Physiological and environmental factors

Birds naturally lay eggs of different sizes throughout their life, in proportions known to be influenced by a number of physiological and environmental factors.

Some of these factors can be influenced so that a flock produces a greater proportion of larger eggs, within the constraints of the supplier's breed targets.

These variables will be explored in turn.



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# 2.1 Genetics & Age

## Genetics

Possibly the largest factor determining the average egg size is genetic. For consistently larger eggs, farmers must choose certain breeds, which are able to produce larger eggs, with their pullet supplier.

## Age

As a hen's reproductive system naturally changes as the birds age, one impact of which is that the eggs it lays become larger.

For instance, young birds of say 30 weeks of age lay smaller eggs than when they are 50 weeks. Maximum egg size can be expected when birds are around one year old.



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## 2.2 Lighting

### If the onset of lay is delayed a bird will produce larger eggs throughout its life

If the onset of lay is delayed, the bird's reproductive organs will be more developed when laying does commence, and the bird will produce larger eggs throughout its life.

A major factor in putting off maturity is the number of hours in the day that young birds are exposed to light.

Chicks in rearing sheds are initially given 20 hours of light a day, and this is reduced to 10 hours over a period of time.

If the reduction in light hours is slow, which is then followed by a slow increase once delivered to the laying farm, egg size will increase over a flock's lifetime.

If a bird lays larger eggs, it lays fewer of them; the egg mass is generally constant.



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## 2.3 Pullet Quality

### A quality pullet means a productive laying flock

The way pullets are managed during their brooding and growing phase influences their performance in the laying period.

Housing a well reared, robust pullet is the foundation of a successful laying cycle.

Immunologically and physically robust pullets are essential if egg size and production targets are to be met and are the result of 16 weeks of care and attention during which time every factor that influences the quality of each pullet needs to be optimised.



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## 2.4 Feed

### The ingredients and composition of poultry feed is key to optimising a birds' performance

Judging the optimum feed nutrient levels is a combination of science and experience. A series of small nutritional changes can push the average egg size from being mostly medium sized eggs to becoming mostly large.

These changes require the careful judgement and the experience of a poultry specialist, always mindful that any change is `one way', and must be carefully judged as the impact is seen weeks later.

Digestive infections and overall gut health can also impact how much birds eat and can affect the size of egg being laid.



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## 2.5 Temperature & Time of Year

### Managing energy requirements and nutrient levels

In colder times of year the birds require more energy for warmth and body maintenance and will eat more feed to satisfy their increasing energy requirements.

However, if the type of feed is not adjusted too many other nutrients will be consumed over influencing egg size.

Conversely during hot spells birds eat less, so they need higher levels of nutrients in their feed to compensate and maintain egg size.

It is therefore important to keep a shed as cool as possible during the summer.



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## 3. A Farmer's Experience

### Sharon Barnard – The Old Dairy Farm, East Sussex

Sharon Barnard has been supplying eggs to the retail and catering sectors from her East Sussex farm for 15 years.

In 2018 Sharon's flock was producing too many medium eggs, relative to her breed's targets. Egg weight had stalled just beneath that all important 63g average egg weight. She is supported by Wynnstay Humphrey Feeds & Pullets Poultry Specialist, Steve Clout.

"We really appreciate Steve's wider experience," said Sharon. "We tried increasing the level of some nutrients in the feed and six weeks later the flock was meeting its breed targets for large eggs."



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## 4. Poultry Specialist Expertise

**Our team of experienced poultry specialists will work with you to optimise the performance of your flock**

At Wynnstay Humphrey Feeds & Pullets, we know that no flock are the same, which is why our experienced poultry specialists can work with you every step of the way to make sure that your birds have the right feed, ventilation, water and environmental conditions to meet your laying objectives.

Whether developing a diet to meet your egg market requirements, finding the right grit, or advising you on bird husbandry and welfare, we want you to profit from our knowledge, and 85 years of dedicated poultry expertise to ensure the management and performance of your flock is optimised.



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## 4. In summary

The public loves large eggs (63-73 grams) and as a result they demand a premium price, which incentivises farmers to increase the proportion of large eggs laid by their flocks.

Physiological factors such as bird genetics, age, feed and pullet quality, as well as environmental factors such as lighting and temperature, all impact egg size and can be adjusted to deliver the desired result.

Using our expert knowledge, gained from over 85 years of manufacturing layers feed and rearing pullets, our team of poultry specialists can advise and support farmers to produce eggs that meet their laying objectives, whilst ensuring bird welfare.

If you would like to find out more about how we can supply a nutritionally balanced feed for your flock, keep your birds healthy and optimise egg size, please call us on 01962 764 510 or 01691 828512 or email us at [enquiries@feedsandpullets.co.uk](mailto:enquiries@feedsandpullets.co.uk).



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