



# SIZE MATTERS: BALANCING BIRD WELFARE WITH THE PUBLIC'S TASTE FOR LARGE EGGS

**Explaining how egg size is influenced by numerous factors, and how one leading feed and pullet supplier is managing its customers demand for larger eggs through its team of on farm specialists.**

There is a growing debate in the media over whether the public's love affair with large hens' eggs will squeeze farmer profits and potentially harm their layers.

The topic is bound to raise emotions as market demands, farmers' livelihoods and animal welfare seem to be in conflict.

## **The egg market**

The public loves large eggs; this may be down to effective marketing - recipes often specify large eggs - or they are perceived to offer better value for money than mediums.

Whatever the reasons, large eggs (63-73 grams) demand a premium price, which

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incentivises farmers to increase the proportion of large eggs laid by their flocks.

On the other hand, catering businesses and food outlets want to buy cheaper, medium eggs and farmers have to provide for their needs too.

Fortunately for them, agricultural science has progressed to the point that the levers influencing egg size are better understood. Some can now be adjusted so that a flock produces a greater proportion of larger eggs, within the restraints of the supplier's breed targets.

The question remains how much the birds can be encouraged to lay more, larger eggs before welfare issues, such as prolapses, quality and duration of lay, become a factor.

### **Variables influencing egg size**


An individual bird will naturally lay eggs of different sizes throughout its life, in proportions known to be influenced by a number of physiological and environmental factors. Some of these factors can be varied by the farmer to ensure that the flock, as a whole, performs in accordance with breed statistics.

### **Genetics**

Possibly the largest factor determining the average egg size is genetic. Farmers must choose the right bird for their needs.

### **Age**

As a hen's reproductive system develops with age, so the eggs it lays become larger. Birds at 20 to 26 weeks lay smaller eggs than when at 40 to 60 weeks. Maximum egg size can be expected when birds are around one year old.



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### **Lighting**

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 exposed to around 20 hours of light a day, reduced to 10 hours over a period of time. If the reduction in

light is slow, and then followed by a slow increase once delivered to the farm, egg size increases over the flock's life time.

### **Feed**

The last factor that can influence egg size is the nutrition the birds receive.

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

### **Time of year**

The colder the weather the more energy the birds require for warmth and body maintenance. If the type of feed is not altered to react to the cooling weather, then the birds will eat more feed to satisfy their increasing energy requirements, but there is a potential downside; too many other nutrients will be consumed over influencing egg size.

During hot spells birds eat less, so they need higher levels of nutrient in their feed to compensate. It is important to keep a shed as cool as possible during the summer.

### **A farmer's experience**

Sharon Barnard has been supplying eggs to the retail and catering sectors from her East Sussex farm for 15 years. 70% of her customers are retailers and want to sell large eggs, and she supplies mediums to catering firms and restaurants.

It is crucial for Sharon to consistently maintain her egg weight targets so she sends regular statistics to Steve Clout, the local representative from her feed supplier Humphrey Feeds and Pullets.

The company has been manufacturing layers feed and rearing pullets for more than 85 years and Steve is part of their network of poultry specialists who advise and support customers. "We really appreciate Steve's wider experience," said Sharon. "If we have a problem, Steve may have seen the same thing

on another farm and can suggest a solution he's trialed that we won't know about."

During the recent hot summer, 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.

Steve said: "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 was quick to emphasise that bird welfare remained paramount: "We stayed within the breed targets throughout, and as soon as we'd nudged them to where they should have been, we put the feed back to what it was originally."

### **Reconciling the bottom line**

The market may one day start promoting medium eggs or selling packs of mixed sized eggs.

In the meantime, Sharon takes care of her flocks, rehoming every bird at the end of their commercial life to enjoy a well-earned retirement.

Farmers like Sharon continue working to reconcile changing retail trends with bird welfare, relying on the support, advice and experience offered by poultry specialists like Steve.