Optimising chick holding: shedding light on the blues

Over the years, chick-holding practices have evolved, guided by an enhanced understanding of chick requirements.

One crucial aspect is creating an environment that promotes restful sleep for the chicks.

The hatching process is exhausting for the birds, so a resting period is not merely preferred but essential. When chicks go to sleep in the boxes, they preserve energy. Also, as they are sitting low, airflow is encouraged through the boxes, aiding oxygen supply and cooling.

As we delve further into optimising chick-holding practices, it's essential to appreciate the visible light spectrum's significant role in creating an environment conducive to chick comfort. Human eyes have three types of cone-shaped receptor cells: blue, green and red; these allow us to see in the range of 380–700 nanometers (nm).

A chicken, however, has four types of cone receptor cells: ultraviolet, blue, green and red, giving it a far greater range of 315-750 nm. One of the trends in recent years has been to install blue lights in chick-holding rooms, as this can reduce the light in the room enough for the chicks to sleep while allowing team members to safely navigate through the room. However, some lights on the market, advertised as blue lights, emit below 400nm, which is entering the ultraviolet range.

People with prolonged exposure to UV light have been shown to have an increase in damage to their eyes and skin, so these lights can be potentially damaging to anyone who works in the room routinely. Also, as the birds can see in the ultraviolet range, they will become more active rather than going to sleep.

When chicks become active, they burn more energy, creating greater thermal output while simultaneously interrupting the airflow through the boxes, increasing the risk of discomfort or overheating. This has gone unnoticed simply because we cannot see in this range, but it is something we must tackle.

While this may sound very confusing at first, it can be very quick and simple to identify whether your blue lights are safe. The simplest way is to use any of the surfaces that fluoresce UV light (any glow-in-the-dark product, most organic matter). However, it is better to isolate the precise range using a UV test card.

These cards change colour on their test areas, highlighting the range of UV emitted. Conclusion: When purchasing blue lighting, it is critical to determine the spectrum in which the lights are emitting.

Even after the purchase, regularly assessing their safety ensures the well-being of both chicks and team members, fostering an environment that prioritises their comfort and health.

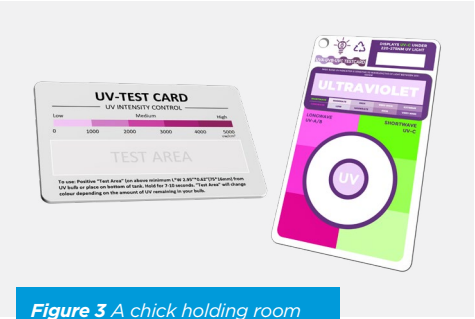

Figure 3 *A chick holding room with good layout and ventilation.*