



**RSPCA standards justification**

# **Hatcheries**

**Chicks, poults and ducklings**

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## Introduction

This document provides the rationale underpinning the setting of certain, key standards within the 2026 RSPCA Welfare Standards for Hatcheries. As such, this document provides the justification behind the setting of such standards.

Not all standards are covered within this document, as either further explanation is not required, e.g. the justification is clear within the standard itself, or the standard is based on a legal requirement. However, those standards that go above legal minimum requirements and could be set at a range of levels are generally included.

Justifications are not exhaustive, but are typically representative of the evidence base (where this exists) for that issue.

In some cases, a summary of the full standard wording has been provided. Therefore, please refer to the RSPCA Welfare Standards for Hatcheries for the full standard wording.

References to legal requirements relate to domestic legislation.

# Management

## Bird Welfare Officer

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### Standards:

A BWO must be appointed and is responsible for the welfare of all birds during the processes of handling, sorting and culling/killing (M 1.12). The BWO must:

- carry out daily checks on personnel who come into contact with birds during incubation, handling, sorting and culling/killing (M 1.13)
- inspect and assess all equipment in operation to ensure it is working effectively and identify any potential welfare risks to birds during the handling, sorting (HND 1.2) and culling/killing of birds (CK 1.6)
- keep a record of the outcome and any action taken during inspection of equipment (CK 1.6).

**BT 1.2** The BWO (see standard M 1.12) or other named supervisor must:

- a) ensure and record that the infrared equipment is set up appropriately
- b) record the names of all operators of the infrared equipment
- c) ensure and record appropriate training of all operators
- d) ensure all operators are competent.

### Year published:

**M 1.12:** original: 2005; revised: 2008, 2026

**M 1.13:** original: 2005; revised 2008, 2026

**HND 1.2:** original: 2005; revised: 2008

**BT 1.2:** original: 2011

**CK 1.6:** original: 2005; revised; 2026

### Justification:

The RSPCA specifies that hatcheries must appoint a Bird Welfare Officer (BWO) to oversee and safeguard bird welfare. While welfare is the responsibility of all hatchery staff, designating a named individual ensures that welfare oversight is consistent and that issues can be identified and addressed promptly. The BWO will have the relevant skills, knowledge, and authority to take appropriate action when required.

# Hatching

## Food and water from hatch

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### **Ibox:**

The RSPCA strongly recommends that birds should be provided with both food and water (e.g. as a gel block) as soon as possible after hatching. The RSPCA is currently reviewing the practicalities associated with providing food and water in a hatchery setting, with a view to making their provision a requirement in the future.

### **Year published:**

Original: 2026

### **Justification:**

Research has shown that withholding feed and water for extended periods post-hatch, particularly beyond 24 hours, can adversely affect bird growth, organ development<sup>(4, 5)</sup>, viability, metabolic rate<sup>(6)</sup> and immune function<sup>(6, 7, 8, 9)</sup>. To mitigate the welfare risks associated with delayed access to feed or water, research suggests providing an energy source in hatching baskets and/or during transportation<sup>(6)</sup>.

The Defra Laying Hen Codes of Practice acknowledge that 'chicks start to peck and learn about appropriate food during the first 24 hours of life<sup>(14)</sup>, at present however, it is still common for feed to be withheld until birds arrive at the rearing site.

Birds given feed and water at the hatchery showed more feeding behaviour on day 1<sup>(15)</sup>. Providing chicks with early access to feed and water benefits chicks who hatched early in the hatching window, who otherwise face prolonged fasting<sup>(10)</sup>, and late hatchers<sup>(11)</sup>, as they may be more vulnerable to growth and immune suppression<sup>(6, 12)</sup>.

With-holding feed and water may cause unfulfilled behavioural and physiological needs for food intake post-hatch, leading to frustration<sup>(13)</sup>. Chicks transported for extended durations (10 hours) exhibited long-term behavioral impacts, consuming significantly more feed at 21 and 28 days old compared to those transported for shorter periods<sup>(17)</sup>.

# Handling

## Standard:

**HND 1.9** The design and speed of the automatic conveyor belt system must:

- a) not cause injuries to the birds
- b) avoid unnecessary sudden changes in speed or direction so the birds can:
  - i. maintain an upright posture
  - ii. regain an upright posture without delay, where a sudden change in speed or direction is unavoidable (see information box below).

## Year published:

**HND 1.9:** original: 1999; revised: 2026

## Justification:

Research indicates that chick welfare may be compromised if automatic conveyor belts are designed such that there are velocity changes exceeding 0.4 m/sec (e.g., falling on another belt with different speed), drop heights over 280 mm into crates or between belts, and belt speeds of 27 m/min or higher <sup>(1)(2)</sup>. These processing conditions can cause disorientation, discomfort and increase the risk of chicks falling onto the floor. For newly-hatched chicks, being upright is likely to support comfort and coping ability; sudden changes in speed or direction that force loss of upright posture may therefore cause immobility, distress and increase risk of injury.

## Beak trimming of laying hen chicks and turkey poults

### **Ibox:**

Beak trimming is against the principles of the RSPCA welfare standards. However, it is acknowledged that, at the current time, prohibiting Infrared Beak Trimming (IRBT) could result in a negative impact on welfare in some laying hen and turkey flocks.

The RSPCA plans to phase out IRBT of laying hens within the next five years. The RSPCA will be reviewing practical experience with intact beak birds and welfare outcome assessment data, including feather cover scores, to help inform the inclusion of an appropriate date from which IRBT will be prohibited.

In the meantime, where it is deemed necessary to minimise the risk of injurious pecking and cannibalism, IRBT is the only permitted method. IRBT is the only legally permitted method for day-old laying hen chicks, except in emergency situations for older birds (Mutilations (Permitted Procedures) (England) Regulations 2010).

Infrared technology has been shown to offer higher standards of welfare compared with conventional methods by improving the accuracy and reducing the risk of pain associated with the process.

Further information can be found in the following RSPCA welfare standards: laying hens; pullets; and, turkeys.

### **Year published:**

Original: 2011; Revised: 2026

### **Justification:**

Infrared technology has been shown to offer higher standards of welfare compared with conventional methods (e.g. heated blade treatment) by improving the accuracy and reducing the risk of pain associated with the process. However, IRBT is still associated with evidence of acute pain and behavioural changes (such as reduced feeding) following the procedure <sup>(18)</sup>. The RSPCA believes that on farm management practices, including housing and enrichment which give birds opportunities to forage and peck, should be such that beak trimming is not a required preventative measure for injurious feather pecking. Beak trimming has been banned in other European countries with success <sup>(19)</sup>, and learnings from these countries should be used to inform the management of in-tact flocks in the UK.

# Vaccination

## In-ovo vaccination

### **Standards:**

**V 1.2** There must be an adequate supply of vaccines for the number of eggs and/or birds being hatched each day.

**V 1.7** All vaccination procedures must be carried out with care and, where injection is required, care must be taken not to cause any unnecessary damage to the eggs and/or birds.

### **Year published:**

**V 1.2:** originally: 1999; revised: 2026

**V 1.7:** originally: 1999; revised: 2026

### **Justification:**

In-ovo vaccinations are typically delivered into the egg between embryonic developmental days 17 to 19 when the eggs are moved from the incubator to the hatcher. Delivering the vaccinations at this time aligns with advanced embryo development, including sufficient immune system development to respond to the vaccine, and minimal hatchability impact. Research suggests in-ovo vaccination may be advantageous to chick welfare over post-hatch vaccinations by reducing the stress of chick handling and the time between hatching and placement on the farm <sup>(20)</sup>.

# Culling and killing

## Surplus birds

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### Standards:

**CK 1.1.1** No bird must be left for longer than 15 minutes before being culled/killed, from the time of removal from the hatcher.

**CK 1.1.2** Where surplus birds are produced, the hatchery must have a written plan in place to demonstrate the steps taken to minimise, and ultimately prevent, the killing of healthy, viable birds.

### Year published:

**CK 1.1.1:** original: 1999; revised: 2011

**CK 1.1.2:** original: 2026

### Justification:

Retaining viable birds for longer than 15 minutes before further processing or culling raises welfare concerns. After chicks are removed from the hatcher, which is a warm, humid and dark environment, they are processed in areas that are in comparison brighter and noisier <sup>(21)</sup>. The European Food Safety Authority (EFSA) notes that hatchery procedures can be stressful for chicks <sup>(22)</sup>, as after hatching, birds, particularly poults, require significant periods of darkness and rest, which processing may disrupt <sup>(21)</sup>. The primary concern arises when birds are left waiting for prolonged periods, and by limiting the time between removal from the hatcher and culling, this standard seeks to minimise exposure to these stressors.

Hatching surplus birds can be the result of poor planning and communication between the hatchery, rearers and retailers; with appropriate planning it can be minimised.

Male laying hen chicks are not considered surplus in relation to CK 1.1.2, due to them having no commercial function in the egg industry. Hatcheries must still comply with CK 1.1.1 when killing male chicks. The RSPCA does not agree with the routine culling of male chicks, however, it is currently permitted under the RSPCA hatchery welfare standards, until viable and welfare-positive alternatives are commercially available.

## Gas killing

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### Standard:

**CK 1.3** The use of 100% carbon dioxide gas is not permitted as a method of disposing of birds.

### Year published:

Original: 2005

Revised: 2008

### Justification:

Research indicates carbon dioxide is aversive to poultry as it is pungent to inhale at high concentrations and a potent respiratory stimulant, which can cause birds to experience unpleasant sensations<sup>(23, 24)</sup> and pain due to the activation of mucosal nociceptors (whereby carbon dioxide (CO<sub>2</sub>) reacts with water to create carbonic acid, which has an irritant effect on these receptors)<sup>(21)</sup>.

The degree of aversion to carbon dioxide increases as the concentration rises <sup>(25)</sup>, with research suggesting that birds start to detect its presence at around 7% <sup>(26)</sup> and aversion being seen in some individuals at 25%<sup>(25)</sup>. Concentrations of carbon dioxide above 40% are considered to be particularly aversive <sup>(9, 23, 24)</sup>.

Chicks show behavioural signs of distress with both gradual exposure to carbon dioxide and immersion in it at an initially high concentration<sup>(27)</sup> indicated by head shaking and gasping<sup>(3)</sup>. Whilst there is limited formal peer-reviewed research on the welfare consequences of killing methods for chicks, the research from the commercial slaughterhouse sector where birds demonstrate a clear aversion to carbon dioxide, is used by the RSPCA to make the informed decision to not permit the use of carbon dioxide in concentrations above 25% for the killing of chicks.

## **Maceration operation**

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### **Standards:**

**CK 1.5** The culling/killing of birds must only be carried out by a person that is trained and competent.

Mechanical culling/killing equipment must be set up and operated in line with the manufacturer's guidelines and must be maintained and used in a way that ensures all birds are killed instantaneously. This must be demonstrated through appropriate maintenance and record-keeping (CK 3.2.1), including twice-daily inspections (one of which must take place before use), cleaning after each use, and a weekly maintenance check (CK 3.2).

To operate effectively, all procedures must ensure that birds are introduced into the equipment:

- at a rate that matches the equipment's capacity (CK 3.2.2)
- without being deflected upwards by the blades or projections
- so that they fall straight into the blades or projections
- with the drop into the mechanical device being kept to a minimum (CK 3.1)

### **Year published:**

**CK 1.5-** original: 1999; revised: 2005

**CK 3.1-** original: 1999; revised: 2026

**CK 3.2 to CK 3.2.2-** original: 2026

### **Justification:**

Instantaneous mechanical destruction (IMD) (e.g. maceration) when operated correctly leads to the immediate loss of consciousness and death, and thus causes minimal welfare harm<sup>(21)</sup>. The incorrect use of maceration has been identified by the EFSA<sup>(28)</sup> as having the potential to cause pain, fear and distress if equipment or staff errors occur during the process. Based on these identified risks, the standards require correct operation of the equipment so that chick death is instantaneous.

# Transport

## Rail, air or sea transport

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### Standard:

**T 1.1** Where birds are to be transported by rail, air or sea:

- a) permission must be sought annually from the RSPCA Farm Animals Department prior to transport
- b) the RSPCA Farm Animals Department's written response must be made available on request.

### Ibox:

When requesting permission to transport birds by rail, air or sea, the following details are to be included:

- location of the hatchery
- location of the rearing unit(s)
- proposed route, including expected journey time
- how the health and welfare of the birds will be ensured.

### Year published:

Original: 2026

### Justification:

Transport by rail, air and sea can involve longer journeys, unfamiliar handling, and environmental stresses that may compromise the health and welfare of birds. Requiring prior permission from the RSPCA Farm Animals Department ensures that planned journeys are reviewed and welfare measures are considered.

## Transport time

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### Standard:

**T 1.8** Birds must be delivered to the rearing unit within 24 hours of the time of removal from the hatchers.

### Year published:

Original: 1999

### Justification:

The transportation of young birds can pose a risk to their welfare. Research has demonstrated that chick weight loss is positively correlated with journey duration <sup>(29)(16)(30)(31)</sup>. The Defra code of practice for the welfare of laying hens states that 'chicks should not be expected to rely on the egg yolk sac remnants as the sole source of nutrition' <sup>(14)</sup>. Research has shown that chick yolk sacs are increasingly depleted the longer chicks they are transported <sup>(16)</sup>, and whilst reserves deplete slowly during shorter transport distances (up to 800km), longer distances (1000km) result in much faster depletion of yolk reserves <sup>(30)</sup>. This indicates increased energy demands likely due to the stress of extended transportation, with other indicators of stress (increased corticosterone concentrations) observed during transportation <sup>(32)</sup>. Owing to the heterogeneous conditions experienced in transport vehicles <sup>(29)</sup>, the EFSA identifies sensory overstimulation, motion stress and thermal stress as potential welfare risks during transport <sup>(22)</sup>.

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