MAY2011

RSPCA welfare standards for

HATCHERIES

chicks, poults and ducklings

Contents

Introduction

The '*RSPCA welfare standards for hatcheries*' are used to provide the only RSPCA-approved scheme for the hatching, handling, transport and culling/killing of chicks, poults and ducklings. They take account of legislation, government welfare codes, scientific research, veterinary advice, recommendations of the Farm Animal Welfare Council (FAWC) and the practical experience of the farming industry.

The standards are based upon the 'Five Freedoms' as defined by FAWC (hence the name 'Freedom Food' - see page iii). Although these 'freedoms' define ideal states, they provide a comprehensive framework for the assessment of animal welfare on farm, in transit and at the place of slaughter, as well as representing an important element of farm assurance requirements.

- Freedom from hunger and thirst
  by ready access to fresh water and a diet to maintain full health and vigour.
- Freedom from discomfort
  by providing an appropriate environment including shelter and a comfortable resting area.
- Freedom from pain, injury or disease
  by prevention or rapid diagnosis and treatment.
- Freedom to express normal behaviour
  by providing sufficient space, proper facilities and company of the animal's own kind.
- Freedom from fear and distress
  by ensuring conditions and care which avoid mental suffering.

These freedoms will be better provided for if those who have care of livestock practise/provide:

- caring and responsible planning and management
- skilled, knowledgeable and conscientious stockmanship
- appropriate environmental design
- considerate handling and transport
- humane slaughter.

Guide to the use of the RSPCA welfare standards

(i) The numbered requirements are the standards, all of which must be complied with.

(ii) Boxed sections (indicated by ⓘ) give additional information, including: providing the reasoning behind a standard, expand on a standard, state how a standard can/will be assessed and/or highlight areas where the standards will be reviewed in the future.

(iii) It is expected that all relevant legislation regarding farm animal husbandry and welfare will be fully implemented in addition to the RSPCA welfare standards.

Freedom Food Ltd

Freedom Food is the RSPCA's farm assurance and food labelling scheme. Freedom Food assesses and approves farms, hauliers and abattoirs that meet all of the applicable RSPCA welfare standards. Processors and packers must also apply for scheme membership for traceability and licence fee purposes.

Only approved suppliers and outlets using approved suppliers may use the Freedom Food certification mark subject to traceability and licence fee. Membership is subject to an annual membership fee and successful assessment as well as risk based monitoring visits by Farm Livestock Officers employed by the RSPCA's Farm Animals Department.

Freedom Food is a charity in its own right and not for profit. Any surplus goes back into improving farm animal welfare.

Management

M 1.0 All records and other documentation that the '*RSPCA welfare standards for hatcheries'* require the producer to keep and maintain, must be made available to the Freedom Food Assessor and RSPCA Farm Livestock Officer on request.

M 1.1 All hatchery staff must:

a) have access to a copy of the current version of the 'RSPCA welfare standards for hatcheries'

b) be familiar with its content

* c) understand and apply its content in the area relevant to their duties.

M 1.2 At least every 6 months, managers must review procedures relating to the following:

a) biosecurity

b) hatchery hygiene management

c) bird welfare

d) personnel training.

M 1.2.1 All hatcheries must receive annual input from the attending veterinary surgeon, or other suitably qualified person, to review the procedures listed in M 1.2.

M 1.3 Managers must develop and implement a biosecurity plan to minimise the risk of disease introduction and spread of disease.

M 1.4 Managers must be able to demonstrate effective biosecurity measures for all personnel entering the premises.

M 1.5 A visitor's book must be kept up to date, including records of the previous premises visited where poultry were present.

M 1.6 Managers must develop and implement plans to prevent and deal with emergencies such as fire, freeze, flood, storm damage, breakdown of environmental control systems or interruption of essential supplies, e.g. electricity.

M 1.7 Managers must provide an emergency action board, sited in a prominent position, which must include:

a) the procedures to be followed by those discovering an emergency

b) the location of water sources for use by the fire brigade

c) a map grid reference and postcode for the location of the unit.

M 1.8 All surfaces and equipment within the hatchery must be:

a) maintained in good condition

b) cleaned regularly.

M 1.9 Managers must:

a) identify training requirements of staff

b) ensure the competence of staff in carrying out their duties

c) record any training undertaken by staff

d) continually monitor the competence of the staff employed to handle the eggs and birds.

M 1.10 Relevant staff must receive appropriate training to enable them to maintain all hatchery equipment in full working order.

M 1.11 Managers must appoint a named Bird Welfare Officer (BWO) who is responsible for the welfare of all birds during handling and sorting.

M 1.12 The BWO (see M 1.11) must carry out daily checks on all personnel who come into contact with the birds during the incubation and sorting process, and during the disposal of cull and unwanted birds.

M 1.13 Managers must maintain records of production data, which must include documentation on:

a) place of origin of eggs entering the hatchery
b) health of breeding flock
c) movement of birds leaving hatchery
d) vaccinations given to birds
e) number of birds hatched each week
f) overall hatchability
g) the daily mortality (where the cause of death can be identified, this must be stated)
h) the number of birds culled per day (including reason for culling).

M 1.14 Managers must develop and implement a transport plan which:

a) minimises the time birds spend in transit from the hatchery to the rearing unit
b) ensures that birds are transferred safely and with care.

M 1.15 When developing and implementing farm pest and predator control plans, physical exclusion methods, and the removal of items that might encourage the presence of pests and predators (see information box below), must be included.

Methods of physical exclusion and discouragement of pests and predators include:

- **Construction/maintenance of fencing appropriate for excluding the pests/predators in question**
- **Removal of shelter/cover (e.g. weeds) in the area surrounding the buildings**
- **Maintenance/proofing of buildings against pests and predators.**

M 1.16 Managers must:

a) have access to a copy of the 'Code of practice for the prevention and control of salmonella in breeding flocks and hatcheries' (Defra, PB 1564, 1993)
b) be familiar with its content
c) implement the recommendations as appropriate.

Handling and storage of eggs

HSE 1.1 Measures must be taken to:

a) minimise the risk of disease entry into the hatchery

b) avoid cross-contamination.

HSE 1.2 Eggs that have arrived from laying units must never come into contact with newly-hatched birds or hatch debris.

> ⓘ **Separate areas for the handling of each of these are essential to avoid disease transfer.**

HSE 1.3 Eggs must be thoroughly sanitised, using processes such as fumigation, before being placed in the setter.

HSE 1.4 Dirty eggs must not be incubated.

HSE 1.5 There must be communication and a planning procedure between the breeding flock manager and hatchery to ensure that there is an adequate supply of eggs, to reduce the need for eggs to be stored for prolonged periods.

HSE 1.6 Eggs must not be stored for longer than 14 days.

> ⓘ **Under normal circumstances, the RSPCA recommends that eggs should not be stored for longer than 7 days.**

HSE 1.7 Measures must be taken to reduce the possibility of microbial contamination of eggs and trolleys/trays.

HSE 1.8 Trolleys and trays must be cleaned and disinfected regularly using products approved by Defra.

HSE 1.9 Manual handling of eggs must be kept to a minimum.

Hatching

Hch 1.1 The temperature and humidity within the setters must be accurately monitored.

Hch 1.1.1 The temperature and humidity within the hatchers must be accurately monitored.

Hch 1.2 The ventilation system must be checked and monitored to ensure that a fresh supply of oxygen is available.

Hch 1.3 Records must be kept of checks made to ensure that the eggs placed in setters are being turned frequently to allow bird embryos to develop properly.

Hch 1.4 * Operators must check the eggs in accordance with Hch 1.3 at least 3 times each day.

Hch 1.5 Alarm systems must be fitted to monitor any fluctuations in temperature and humidity during the incubation period that could reduce the hatchability of fully developed birds.

Hch 1.6 There must be:

a) an effective means of communication to alert relevant personnel in the event of equipment failure

b) an appropriate contingency plan to minimise any disturbance during the incubation period.

Hch 1.7 When eggs are transferred from the setters to the hatchers, care must be taken to avoid any unnecessary movement and disturbance.

Hch 1.8 Sanitation must be conducted in accordance with the:

a) hatching equipment manufacturer's guidelines (in particular to calculate bird exposure time with regards to the volume and ventilation rate of the equipment)

b) sanitiser manufacturer's guidelines (in particular to calculate sanitiser concentration).

Hch 1.9 When using a noxious substance, such as Formalin, sanitation must be:

a) performed only once in the hatcher

b) conducted when the majority of the birds are 'pipping' and not at peak emergence.

> **Formalin is a noxious substance and can cause irritation to the bird's eyes and nasal passages, especially if used incorrectly. Consideration should be given to the use of alternative sanitisers, which are as effective but less noxious.**

Hch 1.10 Birds must not be removed from the hatcher before they are sufficiently dry to enable them to maintain body temperature.

Hch 1.11 All trays containing newly hatched birds must be examined immediately when removed from the hatchers and birds must be separated from the remains of the egg shells.

Hch 1.12 Hatcheries seeking to gain Freedom Food approval must contact the RSPCA Farm Animals Department to:

a) discuss the design of automatic separating equipment in detail

b) obtain written permission about the use of the equipment for birds reared under the Freedom Food scheme.

Hch 1.13 Where automatic sorters are used, the following conditions must be satisfied:

a) the tipping of birds from the hatcher trays must be gradual and ensure that birds are delivered directly onto the sorting equipment

b) birds must be protected from falling from the sides of the sorter or falling into the debris

c) empty hatcher trays must be examined thoroughly for any remaining birds or unhatched eggs prior to washing.

Hch 1.14 Any birds that are deformed, sick or injured, or which have not hatched successfully, must be removed without delay and humanely culled (see Culling and killing section).

Handling

Hnd 1.1 Hatcheries considering new automatic handling equipment to facilitate the sorting process of birds at different stages, such as feather sexing, must contact the RSPCA Farm Animals Department to obtain written permission for the use of the equipment for birds reared under the Freedom Food scheme.

Hnd 1.2 The BWO (see M 1.11) must carry out an assessment of all equipment in operation to identify any potential welfare risks to birds during the handling process.

Hnd 1.3 Birds must be handled carefully and in a compassionate manner when being transferred from trays for examination and sorting.

Hnd 1.4 Care must be taken to ensure that birds are not injured during the handling process.

> **The handling process starts when chicks leave the hatcher and ends when the chicks have been loaded for transport. It involves both mechanical and manual handling, including the sorting and sexing of the chicks.**

Hnd 1.5 Manual handling of birds must be kept to a minimum at all times.

Hnd 1.6 Where birds are manually transferred from one area to another in trays, care must be taken when lifting and placing the trays to avoid causing unnecessary movement of, and disturbance to, the birds.

Hnd 1.7 Where automatic conveyor belt systems are used these must:

a) be designed to ensure that birds cannot become trapped

b) provide adequate side protection to contain the birds.

Hnd 1.8 Where necessary, additional side protection must be fitted to the conveyor belt system to ensure the wellbeing of the birds.

Hnd 1.9 The design and speed of the automatic conveyor belt must not cause injuries to the birds.

Hnd 1.10 Where birds are transferred between different levels, the angle of the conveyor belt must not cause the birds to lose balance.

> **The RSPCA commissioned research to investigate potential welfare issues that may arise during the handling process at hatcheries. Bird behaviour can be used to indicate whether the design of equipment and systems is appropriate - for example, loss of posture and disorientation. Signs of injury, bleeding or bruising of birds, and also 7-day mortality following placement at the farm, are all useful welfare measures, which can all be influenced by factors such as the number and height of drops between adjacent conveyors and the speed of the conveyor belts. Given the velocities and accelerations within handling systems, there is scope for considerable damage to the birds, and for poor welfare, if systems are not properly set up and maintained.**

Hnd 1.11* The positioning of the conveyors must ensure all drops between adjoining conveyors are as short as possible.

* Beak trimming of laying hen chicks

* **The RSPCA is working towards phasing out beak trimming for laying hens by 2016 at the latest, or sooner if this becomes possible. The 2016 date has also been proposed by Defra for a legal ban of the procedure[1]. The Society will continue to work closely with the industry to help meet this goal, to include consideration of all relevant research and practical aspects of laying hen and pullet rearing, nutrition and breeding.**

In the meantime, where it is deemed necessary to minimise the risk of injurious pecking and cannibalism, infrared trimming of chicks is the only legally permitted method (except in emergency situations for older birds). 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 RSPCA welfare standards for laying hens and pullets.

[1]HC Deb 8 Nov 2010 : Col. 3WS

BT 1.1 * Beak trimming must only be carried out:

a) on laying hen chicks

b) before 24 hours post-hatching

c) using infrared trimming equipment.

BT 1.2 * The BWO (see M 1.11) 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.

BT 1.3 * Birds must be handled in a careful and compassionate manner at all times to ensure they are not injured and to minimise the risk of discomfort and distress.

BT 1.4 * Unfit birds must not be placed on the carousel, but humanely culled/killed (see Culling and killing section) within a maximum of 15 minutes (see also CK 1.4).

BT 1.5 * The appropriate size mask must be used to trim only the minimum amount of beak, and never more than one third.

BT 1.6 * Birds must not be suspended on the carousel for more than 20 seconds.

BT 1.7 * The release of birds from the carousel must:

a) not cause injury

b) allow the birds to achieve a normal upright position immediately.

* **The tray or conveyor belt should be positioned as close as possible to the site of release to minimise the drop height, and where a chute is used this should be designed to prevent birds from falling out and should not be too steep.**

BT 1.8 * Following release from the carousel, in the event that any birds are found to be injured or not recovering and righting themselves during inspection:

a) they must be examined, and if necessary, humanely culled immediately

b) no more birds must be placed on to the carousel until the problem is rectified

c) details of the problem along with the remedial action taken must be recorded.

BT 1.9 * If the equipment is stopped for any reason during operation:

a) all birds must be removed from the carousel without delay

b) birds that have been suspended for the longest time must be removed first.

BT 1.10 * The effectiveness of the infrared trimming, in terms of ensuring bird welfare and checking that the correct amount of beak is being treated, must be monitored every hour and recorded.

Vaccination

V 1.1 All vaccines must be stored in an appropriate container.

V 1.2 Records must be kept to ensure that there is an adequate supply of vaccines for the number of birds being hatched each day.

V 1.3 Vaccines must be used according to the manufacturer's recommendations and/or as directed by the veterinary surgeon.

V 1.4 Vaccines that have reached their expiry date must not be used.

V 1.5 Where live vaccines are used, these must only be prepared immediately before use, to minimise the risk of reduced effectiveness.

V 1.6 Records of vaccination batch numbers must be kept.

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 birds.

V 1.8 Records must be kept and updated on a daily basis of those responsible for administering vaccination procedures.

V 1.9 There must be a named person, responsible for the maintenance of all automatic injection equipment.

V 1.10 All personnel responsible for administering vaccinations by injection must have received appropriate guidance on suitable handling techniques of the birds by an appointed, named supervisor.

V 1.11 Equipment used in the administration of vaccines must be maintained and managed in a hygienic manner, in line with the manufacturer's recommendations and/or as directed by the veterinary surgeon.

Culling and killing

CK 1.1 Birds awaiting culling/killing must be treated humanely.

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 1.2 Permitted methods of culling/killing are:

a) instantaneous mechanical destruction (maceration)

b) exposure to a maximum of 2% oxygen by volume and 90% argon (or other inert gas) by volume in atmospheric air

c) exposure to a maximum of 30% carbon dioxide by volume and a minimum of 60% argon (or other inert gas) by volume in atmospheric air, with no more than 2% residual oxygen.

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

CK 1.4 Where a bird should be culled immediately, e.g. where suffering would be prolonged if left until disposed of by the normal method, it must be:

a) killed by dislocation of the neck using a procedure that ensures severance of all the major blood vessels and spinal cord and then

b) placed in a macerator immediately.

CK 1.5 The culling/killing of birds must only be carried out by a person that is:

a) trained

b) competent.

CK 1.6 All equipment used in the culling/killing of birds must be inspected daily by trained operators to ensure that it is working effectively, and a record kept of the outcome.

CK 1.7 Where gas mixtures are used, the gas concentration must be controlled and monitored accurately, using correctly calibrated and appropriate gas analysis equipment.

CK 1.8 Where gas is used, birds must be placed into the gas container only once the correct gas mix/concentration has been achieved.

* **There should be a visual or auditory alarm system to alert the operative if the residual volume of oxygen exceeds 2% and/or the concentration of carbon dioxide exceeds 30%. The gas monitoring and alarm system should be easily observable by the operative at all times.**

CK 1.9 Particular care must be taken to ensure that there are no air pockets that could reduce the effectiveness of the gas.

CK 1.10 There must be a constant supply of gas mixture readily available at all times while disposing of birds.

CK 1.11 * There must be a system or procedure in place to determine when the gas supply is coming to an end.

CK 1.12 Birds must be thoroughly checked to ensure that all are dead before disposing of the carcases.

CK 1.13 Records must be kept and updated on a daily basis of those responsible for the disposal of birds.

CK 1.14 Where maceration is employed as a method of disposal, the specifications for the equipment must ensure the following:

a) the birds must not be deflected upwards by the blades or projections of the mechanical device

b) the birds must go straight into the blades or projections

c) handling large numbers of birds must not reduce the effectiveness of the machine.

CK 1.15 Where maceration is used:

a) the operator must ensure that death is caused instantaneously

b) whatever the design of macerator employed, the number of birds, speed of operation and effectiveness of the macerator must be monitored to protect the welfare of the birds at all times.

One way to ensure death is being achieved instantaneously is to examine the post-macerated waste, which should have the consistency of a lumpy porridge and contain no identifiable, whole body parts (with exception of the limbs).

The RSPCA will review the types of macerator available, as the suitability of these may vary according to their design and the number of birds that are handled at a time.

CK 1.16 All hatchery waste must be treated by rapid maceration so as to instantaneously kill any living embryos.

The Humane Slaughter Association (HSA) has issued its 'Code of Practice for the Disposal of Chicks in Hatcheries' (ISBN 1 871561 17 5). Managers requiring further information about methods of killing should obtain a copy of this publication.

Transport

This section deals with the transport of birds by road. The RSPCA Farm Animals Department must be contacted if birds are to be transported by rail, air or sea.

T 1.1 Care must be taken when transferring birds to transport containers prior to transportation.

T 1.2 Where birds are transferred into transport containers direct from an automatic conveyor belt, measures must be taken to minimise any risk of injury caused to the birds.

T 1.2.1 * Packing materials used inside transport containers must be dry and free from moulds.

T 1.3 The design of containers must ensure that there is adequate ventilation and air circulation to maintain an optimal temperature within the container during transportation.

T 1.4 The transport containers must be designed to optimise airflow when they are stacked.

T 1.5 Holding facilities must:

a) maintain thermal comfort

b) ensure that birds are protected from any draughts.

T 1.6 The level of lighting in the hatching facility must be reduced to keep the birds calm.

T 1.7 Birds must be delivered to the rearing unit within 24 hours of the time of removal from the hatchers.

> **Research has shown that the incidence of ascites in meat chickens was significantly greater when chicks were either transported 51 to 100 or 101 to 150 miles compared with less than 50 miles. A possible stress effect is therefore present when chicks are transported 51 to 150 miles.**

T 1.8 Transport containers and vehicles must be thoroughly cleaned and disinfected after carrying each consignment of birds.

T 1.9 The cleanliness of the transporter must be checked, and records signed accordingly, by an appointed supervisor before any new birds are loaded onto the vehicle.

T 1.10 The number of birds placed in each container must ensure that birds have sufficient room to:

a) avoid overcrowding

b) maintain a thermally comfortable environment.

T 1.11 Each transport container must provide 21 to 25cm^2 of floor space per bird.

> **The space allowance in T 1.11 is a legal requirement. The variation in space allowance is to allow for adjustment according to not only the weight and size of the birds, but also their physical condition, the meteorological conditions and the likely journey time.**

> **Research has shown that the incidence of ascites in meat chickens was significantly greater when chicks were either transported at 80 or 150 per container compared with 100 per container. The data suggested that 100 chicks per container is optimal and at other densities a possible stress effect is present.**

T 1.12 * The height of the transport containers must:

a) enable the birds to maintain a normal posture when standing

b) prevent birds from escaping.

T 1.13 When placed in the transporter, transport containers must be properly secured to prevent movement and disturbance to the birds during transportation.

T 1.14 The transporter must be fitted with appropriate equipment that:

a) ensures a controlled environment

b) maintains a constant internal temperature of the vehicle during transportation.

T 1.15 The internal temperature of the vehicle must be maintained at 24°C and the temperature variation must not be in excess of 3°C above or below this temperature.

T 1.16 T 1.15 must be satisfied prior to loading the birds.

T 1.17 A suitable monitoring device must be fitted to alert the driver of any changes to this range of temperatures to enable the driver to respond accordingly.

T 1.18 Contingency plans must be in place in case of the event of a failure in the temperature control system, which include appropriate contact numbers of relevant personnel.

T 1.19 All transporters must have a 'livestock capacity document' on board at all times.

> **The livestock capacity document gives data on the size of the transporter and the calculated carrying capacity for birds.**

T 1.20 The timing of transport must be planned to minimise waiting time for birds on arrival at the destination.

T 1.21 Every effort must be made to ensure journeys are completed without unnecessary delays.

T 1.22 Contingency plans must be in place in case there are delays.

T 1.23 All drivers must have a means of communication and an emergency procedure manual that contains all necessary emergency contact numbers.

T 1.24 Drivers must be familiar with appropriate procedures that need to be taken in the event of an emergency.

T 1.25 Any deaths and injuries that have occurred during transportation must be:

a) recorded

b) reported to the hatchery.

Cleaning and disinfection of equipment

CDE 1.1 There must be a specific programme for emptying and cleaning multi-stage setters.

CDE 1.2 All single-stage setters, hatchers and equipment must be thoroughly cleaned and disinfected using disinfectants (approved by Defra, and using the correct dilution factor) before placing a new batch of eggs.

CDE 1.3 Regular testing for contamination e.g. salmonella, must be carried out and records of results kept.

CDE 1.4 All equipment must be:

a) properly installed

b) maintained in good working order.

CDE 1.5 Records of checks carried out must be dated with a time and signed.

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