RSPCA

JULY 2025

RSPCA welfare standards

Laying hens

Contents

Introduction

The *RSPCA welfare standards for laying hens* are used to provide the only RSPCA-approved scheme for the rearing, handling, transport and slaughter/killing of laying hens. The *RSPCA welfare standards for laying hens* take account of UK legislation, government welfare codes, scientific research, veterinary advice, recommendations of the Animal Welfare Committee (AWC) and the practical experience of the farming industry.

The standards are based upon the 'Five Freedoms' as defined by FAWC (now known as AWC). 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

- The numbered requirements are the standards, all of which must be complied with.
- 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.
- It is expected that all relevant UK legislation regarding farm animal husbandry and welfare on-farm, during transport, and at the slaughter facility, will be fully implemented in addition to the RSPCA welfare standards.
- Some standards have been labelled as shown below, which have the following meaning:

  LEGAL refers to a standard that is based on an England legal requirement.

  REVISED refers to a standard or information box that was in the previous edition of these standards but has been amended.

  NEW refers to a completely new standard or information box, which must now be adhered to.
- **Farmers are required by law to have a thorough knowledge of the Defra *Code of Recommendations for the Welfare of Livestock: Laying hens.***

RSPCA Farm Animals Department

The RSPCA's Farm Animals Department develops the RSPCA welfare standards for farm animals. These detailed documents are intended to represent 'best practice' in the care and welfare of farm animals.

The RSPCA works to continually develop and improve the welfare standards using a range of information, including the latest scientific research and practical farming experience. We regularly consult with other animal welfare and agricultural scientists, veterinary surgeons, and farming industry representatives. This helps to ensure that the RSPCA welfare standards continue to be at the forefront of farm animal care and welfare, and are also achievable on commercial farms.

We always value constructive feedback and ideas for improvement from those who are implementing the RSPCA welfare standards. Comments/feedback can be discussed with RSPCA Farm Animals Department scientific staff, by contacting them on the below details:

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The RSPCA does not approve equipment, but sets standards to ensure any equipment permitted for use is managed appropriately to safeguard the welfare of animals.

Food and water

Livestock need to have ready access to fresh water and a diet to maintain full health and promote a positive state of well-being.

Food

FW 1.1 LEGAL Hens must be fed a wholesome diet which:

a) is appropriate to their stage of production

b) is fed to them in sufficient quantity to maintain them in good health

c) satisfies their nutritional needs

d) is provided at all times each day, except when required by the attending veterinary surgeon

e) includes provision of insoluble grit designed for use by poultry (e.g. flint) of appropriate size and quantity, no less than once weekly.

The provision of insoluble grit for laying hens is considered to be very important to aid digestion.

Grit that is too small or too smooth will not be retained in the gizzard; providing hen grit to around 30 weeks and larger turkey grit from around 30 weeks onwards may help to retain more grit in the gizzard, enabling better digestive efficiency.

The recommended amount per hen is 7g per bird per week, with food (not in track feeders) or placed in a separate feeder.

In the event of feather loss, the availability and energy content of the feed may need to be increased to help hens compensate for greater heat loss and comply with FW 1.1.

Various aspects of diet have been shown to help minimise the risk of injurious feather pecking in laying hens and should be considered, such as:

- **increasing opportunity for foraging behaviours by providing mashed feed and scattering pellets/whole grain/grit evenly on the litter**
- **providing extra fibre in consultation with a feed supplier and/or nutritionist**
- **ensuring sodium content of feed is appropriate**
- **ensuring the supply of an appropriate balance of essential amino acids**
- **minimising, or making any changes to the diet gradual, including content, taste, texture, energy level and stepping down protein levels**
- **contacting the feed supplier and/or consulting a nutritionist for further advice.**

Low levels of protein, particularly in nutrient poor rations provided at end of lay, may contribute towards emaciation in laying hens and is associated with injurious pecking during the laying period.

FW 1.2 Particular attention must be given to the provision of food and water in areas frequented by subordinate hens.

FW 1.3 LEGAL No feedstuffs containing mammalian or avian derived protein are permitted.

FW 1.4 The use of in-feed growth promoters is prohibited.

FW 1.5 In-feed antibiotics may only be given for therapeutic reasons under the direction of the attending veterinary surgeon.

FW 1.6 LEGAL All foodstuffs fed must be safely and hygienically stored, transported and delivered to stock to prevent infestation or contamination or wetting.

FW 1.7 Food must not be allowed to remain in a contaminated or stale condition.

FW 1.8 5cm of (actual) linear track (10cm single side) or 4cm of circular feeding space must be provided and be accessible for each bird.

As a guide, in order to ensure that the feed track is accessible to birds where feed tracks run parallel to one another, there should be a clear space of at least 60cm on either side of the feeder. Where feed tracks run close to other facilities or walls and there is no back to back feeding, this space should be about 40cm.

FW 1.9 Hand replenished feed systems with no integral store of food are prohibited.

FW 1.10 Wire over feeders and drinkers must:

a) not be electrified

b) be demonstrated not to be ever connected to an electricity source.

Where there is a risk of contamination of food and water, producers should use alternative devices, such as roller bars, to discourage the birds from perching over feeding and drinking facilities.

FW 1.11 Feed distribution must ensure uniform feed availability throughout the entire feeder system.

FW 1.12 Producers must have a written record of the nutrient content of the feed as declared by the feed compounder.

Water

FW 2.1 LEGAL Hens must be provided with water:

a) that is clean and fresh

b) at all times, except when required by the attending veterinary surgeon.

FW 2.2 Provision must be made for supplying water in freezing conditions.

FW 2.3 The minimum number of drinkers which must be provided is as follows:

a)

nipples	1 per 10 hens
cups	1 per 10 hens
circular trough space (including bells)	1.0cm per hen
linear trough space	2.5cm per hen

b) never less than 2.

It is strongly recommended that important provisions, including feeders and drinkers used in lay, are the same as – or at least similar to – those provided during rear, as this can help reduce the stress associated with the transition between these environments.

FW 2.4 All drinkers must be in working order.

FW 2.5 Header tanks must be covered at all times.

FW 2.6 Drinkers must be:

a) placed at optimum height for the size and age of the birds

b) of an appropriate design.

FW 2.7 The drinking quality of non-mains water must be:

a) independently tested

b) tested every 6 months

c) tested using water samples collected from the source of the supply.

Water, including borehole water, should be tested regularly, and at least annually, at the point where the birds are able to drink it. Results should be recorded, and including in relation to FW 2.7, should be:

Coliforms:	**< 100 colony forming units (cfus) per ml**
Total viable counts:	**< 1,000 cfus per ml**

FW 2.7.1 The water quality test records relating to FW 2.7 must:

a) clearly indicate whether the water is considered an acceptable source of drinking water for livestock

b) be kept for at least 2 years.

It is important to stress that water quality may change over time. Therefore, in between routine tests, one should remain vigilant for signs that indicate deterioration in water quality such as changes in water smell, clarity or taste, or changes in animals' eating and drinking habits, loss of performance, or health problems, which should immediately trigger the need for re-testing.

Environment

The environment in which livestock are kept needs to take into account their welfare needs and be designed to protect them from physical and thermal discomfort, fear and distress, and allow them to perform their natural behaviour.

E 1.1 Where management systems, designs or layout of facilities not covered in the RSPCA welfare standards are being employed or considered, these must be referred to, and discussed with, the RSPCA Farm Animals Department before they can be considered for certification.

E 1.2 Buildings must be designed, constructed, maintained and sited to:

a) protect hens from thermal discomfort

b) be suitable for local weather conditions and withstand expected seasonal extremes of weather.

E 1.3 Where changes are being made to existing buildings or new equipment installed that has not previously been assessed by the certification scheme responsible for assessing against these standards, managers must inform the scheme at the time the change is being made.

It is strongly recommended to discuss any proposed changes, referred to in E 1.3, in relation to the RSPCA welfare standards with the RSPCA Farm Animals Department.

The most common cause of injurious feather pecking is change, so any changes in housing and facilities should therefore be made gradually and birds closely monitored.

Producers should also pay particular attention to the birds after any sudden external environmental changes, such as in the weather, noise or light intensity or duration.

Buildings

E 2.1 LEGAL For all accommodation, a notice containing a checklist of the key points relating to welfare (see E 2.2) must be prominently displayed at, or near, the entrance to each building and be amended accordingly.

E 2.2 The checklist to satisfy E 2.1 must include:

a) total usable area available to the birds

b) total number of birds and stocking density

c) total number of drinkers and feeders

d) target air quality parameters

e) lighting levels and regimes

f) emergency procedures, i.e. actions in the case of fire, failure of automatic equipment, when temperatures move outside acceptable limits and extremes of weather such as flooding and storm damage

g) nest box area available for each bird.

E 2.3 LEGAL There must be nothing in the hens' environment that is likely to cause injury or distress to the birds that can be avoided.

E 2.4 LEGAL Except where preservatives with an insecticidal role are used, hens must not come into contact with toxic fumes, for example from paints, wood preservatives or disinfectants.

E 2.5 All electrical installations at mains voltage must be maintained in order to be:

a) inaccessible to the hens

b) well insulated

c) safeguarded from rodents

d) properly earthed

e) tested at least annually by a qualified or competent person

f) in good working order (for example, any faults identified during testing to be rectified).

By law, electrical installations have to be tested every 3 years as part of the Periodic Inspection Report. However, at least once a year, the 'trip switch' should be tested to ensure it is in correct working order.

E 2.6 Housing and equipment must be designed so that hens can be clearly seen during inspection.

E 2.7 Provision must be made to ensure claw wear; if the substrate beneath the litter does not do this adequately, abrasive strips must be made available.

E 2.8 REVISED Birds must not have access to:

a) the droppings pit and

b) any manure belts present.

Hens that gain access to the droppings pit can easily become stuck and suffer significantly, or die, from lack of food, water and other facilities that are required by law and/or within the RSPCA welfare standards.

E 2.8.1 The structure and inside of the droppings pit (where present) must be checked:

a) at least once daily,

b) and a record made of this check,

c) and a record made of any birds found, removed and action taken to prevent further access to this area.

E 2.9 The service area must be kept clean and tidy.

E 2.10 Where the main slatted area over a droppings pit is at a height of 1m or more above the litter area, ramps or alighting rails must be in place in order to assist birds moving between the two levels.

E 2.11 Ramps or alighting rails relating to E 2.10 must be:

a) either provided at a minimum of 2m for every 600 birds, or along the entire length of the slats

b) evenly distributed along the line of access from the slatted area to the litter if provided in sections.

Where ramps have shallow angles (e.g. below 20°) extra management and attention may be required to ensure that bird droppings do not build-up beneath the ramp to levels where bird welfare may become affected.

The RSPCA is considering setting a maximum angle for ramps so as to minimise potential for injury and ease movement of birds through the unit. Houses should aim to keep angles below 60°.

E 2.12 The use of electric matting, or wire that prevents access to areas of useable area (e.g. crisscrossing over an area), is not permitted.

The use of single line electric wire around the edges of the house is permitted only where there are advantages to the hens' welfare in using it e.g. to prevent smothering in corners and at the edges of the building/colony divisions.

To help minimise the risk of smothering and help birds move to safety in such an incident, the design of corners/edges and use of physical barriers rather than electric wire should be carefully considered.

E 2.13 The apron immediately surrounding the outside of the house must:

a) be kept clean and tidy

b) not offer shelter to wild birds or rodents

c) be well managed with vegetation, if present, kept short.

Floor and litter

E 3.1 Hen house flooring must allow effective cleansing and disinfection, preventing significant build up of parasites and other pathogens.

Where possible, the house floor should be concrete that is well maintained.

E 3.2 Housing for hens must provide access at all times to:

a) well-maintained litter (except if keeping birds on slats for up to 24 hours after the hens arrive at the unit, see E 3.2.1)

b) a well-drained area for resting.

E 3.2.1 Birds must not be held on the slats for more than 24 hours after placement. It must be demonstrated that access to litter is not restricted after this period.

Where appropriate, roller handles can be taken off or plastic ties used to hold up curtains to demonstrate that birds are not restricted from accessing the litter.

It is strongly recommended that hens are given access to litter immediately after arriving at the hen house. Restricting birds to the slatted area, if deemed necessary to help them settle and find food and water, should be for as short a time as possible. This applies to all systems, including multi-tier.

Access to litter when hens first arrive at the laying unit allows them to perform natural behaviours on a substrate they are already familiar with and space to spread out in the house. This in turn can help minimise stress and has been shown to be a factor in minimising the risk of injurious feather pecking.

Restricting birds from the litter should be minimised as far as possible. Where restriction cannot be avoided within the first 24 hours of placement, it is recommended that birds should only be restricted for the morning period.

Following lights out, any birds remaining on the litter should be lifted onto the slatted area. This will train birds to roost on the slatted/perch area, helping to maintain better litter quality.

E 3.3 The litter must:

a) be of a suitable material and particle size

b) be managed to maintain it in a dry, friable condition (and replaced where necessary)

c) be of a sufficient depth for dilution of faeces

d) allow birds to dust bathe

e) be topped up daily, if necessary, with fresh litter

f) be managed hygienically

g) be stored in dry, hygienic, rodent-proof premises.

It is a legal requirement to keep the litter in a well-maintained state.

Well-maintained litter promotes birds' physical and behavioural wellbeing and has been shown to help minimise the risk of injurious feather pecking. Consideration of factors to help manage litter condition include drinker design and management, stocking density, nutrition, flock health, air change rate and house environment, litter material and depth.

Super absorbent litter, like pelleted bedding material, can be very effective and is strongly recommended for use in areas of the house that are particularly difficult to manage.

Litter substrates formed of small particles, such as peat and sand, are best able to satisfy a hen's need to dust bathe. Large-particle materials, such as long straw and large-sized woodchip, are not able to satisfy this need until they are broken down and friable. Before such a point is reached, birds are to be provided with additional or alternative friable, small particle materials in order to satisfy E 3.3 a), which could be in the form of separate dustbathing boxes.

E 3.3.1 Slatted areas or mesh floors must provide:

a) adequate support for inspections to be carried out

b) sufficient depth for the build up of droppings underneath.

E 3.4 Usable area in all hen houses must comprise of a minimum of one-third litter.

E 3.5 Litter must:

a) cover the floor within 24 hours of birds being placed in the shed

b) be maintained at a minimum of 5cm from 24 hours of placement up to the first 2 months of placement

c) be maintained at a minimum of 10cm, by the latest, after the first 2 months of use.

E 3.6 REVISED Where birds have access to litter through internal popholes, including to a veranda, the popholes must be provided according to the minimum specification required for birds having access to the range (see R 3.2, R 3.3 and R 3.4).

A pophole is defined as an opening of less than 2m in height that restricts the width of the building and is intended for the use of hens to access the range or litter.

The RSPCA is considering an appropriate maximum distance hens should have to travel to reach the litter from the slatted area. Litter is very important for hen behaviours such as scratching and dustbathing, in both barn and free-range systems. Houses should allow the birds to easily move around and use all areas fully. As a guide, to minimise the distance to litter by preventing the house from being too long and narrow, a line of access from the slats to the litter should provide at least 2m per 600 hens.

Verandas

NEW **Verandas provide many benefits for bird welfare by encouraging ranging (in free-range systems), improving litter quality in the main house, providing more space, providing natural light, and providing free-range birds with a more biosecure semi-outdoor area during periods of mandatory confined housing (e.g. during Avian Influenza housing orders). These factors can have indirect positive welfare impacts on flocks, such as reducing injurious pecking.**

Exposure to direct natural levels of UVB wavelengths can ensure the production of vitamin D3. This promotes absorption of calcium, which may help improve bone strength.

E 4.1 NEW Verandas must be installed on all barn buildings by no later than 1st May 2030.

NEW **Due to the welfare benefits verandas provide to birds, the RSPCA strongly encourages verandas to be installed on barn buildings as soon as is practically possible.**

NEW The RSPCA strongly encourages verandas to be installed on all free-range buildings. The RSPCA Farm Animals Department is currently undertaking an in-depth review of this. Depending on the conclusion of this review, a phase in date for the installation of verandas on all buildings may be set.

E 4.2 NEW Verandas must:

a) have a total floor area of at least 20% of the usable area of the main house

b) be a minimum of two metres in width and height

c) not be used in the calculated floor area for stocking density

d) provide natural air circulation and natural light to achieve an outdoor climate through openings that represent 70% of the external side wall

e) protect birds from adverse weather conditions (see information box below)

f) have a solid concrete floor, in the case of static buildings (see information box below)

g) have fully littered flooring (see E 3.3 and E 3.5)

h) be available to hens by no later than one week after placement

i) have popholes to enable full separation from the main building for climate control (see E 3.6)

j) be available to the hens according to the standards R 3.1 and R 3.1.1

k) have pop-holes that meet standard R 3.7 and R 3.8

l) have adequate provisions to prevent the area surrounding the veranda from flooding during wet weather

m) have an insulated roof (see information box below)

n) have an entirely waterproof roof

o) be designed to prevent access by other animals (excluding the popholes).

NEW In relation to E 4.2 e), adverse weather includes rain, snow, high wind speeds, and high temperatures.

For buildings in particularly exposed positions, the use of solid material on the sides of the veranda up to the top of the popholes can be an effective way of protecting the birds from adverse weather.

In relation to E 4.2 f), including a solid concrete floor in a veranda will help to ensure litter quality can be well maintained. In the case of mobile units where a concrete floor cannot be included, further litter management or other interventions are likely to be required to ensure litter quality is maintained.

In relation to E 4.2 m), insulated roofs help provide a more preferable thermal environment for the birds and minimise condensation build-up, which will also help with litter maintenance.

NEW In order to comply with E 4.2 k), a veranda may be required on each side of the building to ensure the hens do not have to travel more than 20m to reach a pophole. Where verandas are required on each side of a building the total floor area of the verandas can be combined to meet E 4.2 a).

The RSPCA strongly encourages verandas to be provided on both sides of a building.

Lighting

Lighting requirements apply to all indoor usable areas, which may include verandas.

E 5.1 The lighting system in the hen house must provide in each period of 24 hours:

a) a minimum period of 8 hours continuous light, by the provision of either artificial light or access to daylight

b) a minimum period of 6 hours continuous darkness in every 24 hour cycle, except when the natural darkness period is shorter.

Where there are signs of stress in birds, producers should consider avoiding exposure to prolonged periods of light (i.e. in excess of 15 hours), to reduce the risk of health and behavioural problems developing.

E 5.2 Lighting patterns in all houses must be recorded.

E 5.3 **LEGAL** Daytime lighting levels must allow birds to be easily inspected without needing to increase the light levels.

Increasing the light level in order to carry out flock inspection is associated with higher levels of injurious pecking.

Lighting levels which permit dimming in the event of injurious pecking, whilst still allowing inspection during the period of dimming, can therefore form part of a more comprehensive strategy to prevent injurious pecking becoming a problem.

E 5.4 The lighting system in hen houses must:

a) be designed and maintained in order to give a minimum illumination of 20 lux in the open areas of the house (e.g. over litter and feed tracks)

b) only be reduced temporarily, as a last resort, where:

   i. there are signs of an outbreak of injurious pecking or cannibalism

   ii. other solutions to prevent injurious pecking have been employed

Where injurious feather pecking or cannibalism is a problem, or to minimise the risk of a problem, ongoing management techniques (such as increasing environmental enrichment) should be put in place. Lighting levels should be maintained to allow and encourage birds to explore their environment. However, as a last resort in an emergency situation, and with the ongoing use of other possible solutions, lighting levels can be reduced or coloured/ painted light bulbs can be used (green has been shown to help). This should only be for a short period of time, to help the birds settle. Lighting should then be increased gradually over a few days and returned to normal levels as soon as possible.

Advice should be sought from the attending veterinary surgeon in relation to these issues.

Research demonstrates that increased lighting levels within the house can encourage birds to range by reducing the contrast between the indoor and outdoor areas. Improved ranging is associated with lower levels of plumage damage from injurious pecking.

Increased light levels are also associated with improved activity, reduced eye abnormalities and reduced fear and stress.

E 5.5 Patches of high intensity light (artificial or natural) must be avoided within a house.

Varied lighting within the environment can help to encourage certain desired behaviours to take place, for example by increasing the levels of light over the litter area birds can be encouraged to dustbathe. Also, reducing the lighting levels over the perching area can enable birds to rest.

E 5.6 Artificial light must be switched off in a stepped or gradual manner to allow the hens to prepare for darkness.

E 5.7 In all hen housing, adequate lighting, whether fixed or portable, must be available to enable them to be thoroughly inspected at any time.

Natural daylight

NEW Natural light encourages a range of activities, such as foraging and dustbathing. Providing an environment with more natural light also enables birds to utilise their full visual light spectrum.

In free-range systems, the addition of more natural light inside the house reduces the variation in light intensity between the inside and the outside, which encourages range use.

Practical experience suggests that it is still important to be able to manage all lighting within the house. Housing birds at greater light intensities allows more flexibility when a reduction in light levels is required as a management tool to reduce injurious pecking (see E 5.4 b)).

Due to the welfare benefits natural daylight provides to birds, the RSPCA strongly encourages natural daylight to be provided in all buildings as soon as is practically possible

E 6.1 NEW Where required (see E 6.2, E 6.3 and E 6.4), natural daylight must be provided:

a) to give a minimum of 8 hours continuous daylight per day, except where the natural daylight period is shorter

b) by 21 weeks of age at the latest

c) through all the required openings.

NEW In relation to standard E 6.2 and E 6.3 (below), the total floor area of the house is the entire footprint of the internal floor (i.e. it excludes any veranda present) area across the whole of the house where the birds are kept.

For clarification, in multi-tier systems this is the litter area on the floor of the system (this includes the area taken up by ramps), as this represents the footprint of the bird area within the building.

For flat deck systems this is a combination of the litter area and the slatted area. This will give the total area of the poultry house where the birds are kept (this includes the area that nest boxes take up).

Essentially, if you were to clear the whole house of all furniture, then it's the total internal floor area of the building.

E 6.2 NEW For barn houses, natural daylight openings must:

a) correspond to at least 3.0% of the total floor area of the house

b) be installed by no later than 1st May 2032 for existing buildings

c) be installed in all new houses built from 1st October 2025.

E 6.3 NEW For free-range houses, natural daylight openings must:

a) correspond to at least 3% of the total floor area of the house

b) be installed at the time of an internal refurbishment

c) be installed by no later than 1st January 2035

d) be provided via the installation of windows for buildings that undergo a structural refurbishment or are built from 1st October 2025 (see information box below).

NEW **For clarification, in relation to standard E 6.3, popholes may be used to meet the 3% requirement, except where a building undergoes a structural refurbishment or when a new house is built from 1st October 2025. Where a building undergoes a structural refurbishment or a new house is built from 1st October 2025 then the 3% level is required to be met with the installation of windows, i.e. popholes cannot be used to count towards achieving the 3% requirement.**

An internal refurbishment is defined as:

- **a full system or near full system change, such as the replacement of an existing multi-tier system with a new multi-tier system or any change that results in a system being removed and then returned e.g. the replacement of nest boxes.**
- **any change to the system that results in an increase in bird numbers (e.g. the replacement of an existing flat deck system with a multi-tier system).**
- **the extension of an existing building to incorporate an additional flock.**

An internal refurbishment does not include the replacement of accessories such as drinkers, feeders, perches, or ventilation and lighting systems.

A structural refurbishment is defined as any refurbishment that involves a change to the structure of the building such as the removal of wall(s) or a change in wall or roof height. It includes any situation where planning permission is required to repair any damage to a building, e.g. when caused by fire, flood or storm damage.

If managers and/or stock-keepers are in any doubt as to whether a refurbishment meets the meaning or intention of E 6.3 b) and d) they are strongly advised to contact the RSPCA Farm Animals Department for advice at the earliest opportunity to ensure compliance with this standard.

E 6.4 NEW For flocks placed from 1st October 2025, natural daylight must be provided via all popholes within the building when birds need to be housed during the natural daylight period.

NEW **With reference to standard E 6.4, natural daylight will need to enter the house through the popholes during periods where the pophole doors may need to be closed during the day, e.g. in the event of a compulsory housing order, inclement weather or on veterinary advice (as relevant and where permitted by national legislation).**

The RSPCA strongly encourages a transparent/translucent material (e.g. toughened glass or acrylic) to be permanently installed in the pophole door to form a window, and therefore allow daylight into the shed at all times. Alternatively, the pophole opening could be temporarily covered with a suitable material, such as a transparent/translucent material or avian influenza compliant mesh. However, in this case, the pophole doors will need to be opened to ensure natural daylight can enter the house via the pophole opening. The material will also need to be removed immediately once the birds no longer need to be housed during the day. If producers experience any issues implementing this standard, the assurance scheme responsible for assessing against these standards should be contacted. Alternative solutions can then be considered to ensure the birds have sufficient natural light, for example by the addition of windows at different heights or locations in the building and/or the installation of light wells.

E 6.5 NEW To ensure that streams of daylight do not cause areas of bright light on the floor of the house, light openings must:

a) be of a sufficient size

b) be well distributed (see information box below).

> NEW **Natural daylight will help promote more bird activity. Therefore, ideally, the natural daylight openings should be positioned over the litter areas to encourage these positive active behaviours in these appropriate areas.**
>
> **It is recognised that it may not be possible to include all light openings over the litter areas. In such cases, the positioning of the light opening should be carefully considered to ensure that the natural daylight openings are not positioned directly over areas where the birds have a preference to rest, such as where perches are provided.**
>
> **If you are unsure where best to position windows, please contact the RSPCA Farm Animals Department for further advice and guidance.**

> NEW **Patches of bright light on the floor of the house, for example, when windows are not evenly distributed around the house, when windows are not of a similar size or when windows are too small, can attract birds to these areas. An unequal distribution of birds around the house, with increased activity in localised areas, could adversely affect litter quality and bird welfare. To ensure compliance with E 6.4, observations should take place on bright days, at different times during the day.**

E 6.6 NEW Where there are areas of different light intensity across the floor of the house there must be a gradual change in light intensity between each area.

> NEW **Research has shown that chickens prefer different light intensities for the performance of different activities. Dimly lit areas provide the opportunity to rest, whilst brighter lit areas provide the opportunity to perform more active behaviours. Perches should be positioned in the dimly lit areas and it is recommended that windows providing natural daylight are positioned close to the litter areas.**

E 6.7 NEW It must be possible to readily control the amount of daylight entering the building to the extent that darkness can be achieved.

> NEW **Installing shutters, for example, can control the amount of light entering through the light opening. Shutters can be especially important to control the ingress of direct sunlight, which could increase the risk of heat stress. The shutters can be used to block light entering the house, which is useful during catching and also at night where events outside the house could cause birds to panic. To have the greatest amount of control over the light entering the house it should be possible to open/close the shutters by varying degrees, which could be achieved manually or mechanically.**

NEW The provision of daylight – particularly via windows - can increase environmental temperature within the house. Therefore it is important to consider the capacity of the ventilation system and the positioning of the ventilation inlets so that good ventilation and correct house temperature can be achieved. In the event of excessive heat, shutters can be used to block out direct sunlight. The shutters, especially if insulated, can also help keep the building warm during cold weather.

E 6.8 NEW Where glass windows are used, these must be constructed of safety/toughened glass.

NEW Windows constructed from two sheets of 2-ply polycarbonate (the same material and specification as that used for home conservatory construction) have been shown to work well in practice. Polycarbonate windows also appear to be better at diffusing direct sunlight within the house, helping to avoid patches/streams of sunlight.

E 6.9 NEW Windows must be properly installed (e.g. sealed), so the correct environmental conditions (e.g. airflow) within the house can be maintained and draughts avoided.

NEW Natural light can be provided in various ways, including the use of skylights, windows and/or light wells. For advice on the different ways natural light can be provided please contact the RSPCA Farm Animals Department.

Space requirements and flock size

E 7.1 LEGAL All hens must have sufficient freedom of movement to be able, without difficulty, to stand normally, turn around and stretch their wings.

E 7.2 All hens must have sufficient space to be able to perch or sit quietly without repeated disturbance.

E 7.3 LEGAL The stocking density must not exceed 9 laying hens per m^2 of usable area.

Usable area is legally defined as an area at least 30cm wide with a floor slope not exceeding 14% (8°), with headroom of at least 45cm.

NEW Providing birds with access to verandas (see E 4.1) will reduce the stocking density in the main house and provide more space and additional enrichment.

The RSPCA is currently reviewing the stocking density requirement for laying hens. Higher stocking rates can contribute to welfare issues, such as injurious feather pecking and aggression. Housing birds at a lower stocking density is used as a successful management strategy for keeping intact beak flocks and we strongly encourage producers to stock birds at lower rates to provide better welfare outcomes for the birds.

E 7.4 Nest areas (including nest tops) must not be included as part of the calculated usable area.

E 7.5 Egg belt covers in front of nest boxes and at floor level may be included as usable area.

E 7.6 For flocks with more than 6,000 birds the following maximum flock and colony (subdivision of a flock) sizes must be adopted:

Barn	max flock size	32,000 birds
	max colony size	4,000 birds
Free-range	max flock size	16,000 birds
	max colony size	4,000 birds

The division of large flocks into smaller, separate colonies is important to help keep the birds in manageable groups and well spaced throughout the house, with adequate access to facilities such as water, feed and nest boxes. It can also help to minimise problems of injurious feather pecking and stress and decreases the number of birds which could potentially be affected by an incident such as smothering. As such, internal divisions need to be constructed in a way to prevent any movement of hens between colonies.

In the case of free-range flocks, and particularly smaller flocks with colonies kept in separate houses, there may be some migration of birds to different colonies when the birds come inside from the range. This has not been reported to be a significant problem, but it should be considered and monitored to help ensure that the maximum stocking density inside is not exceeded. Further divisions on the range may help if this is found to be an issue (see information box below R 1.7).

E 7.7 Each flock must have separate feeding, watering, lighting and ventilation (where artificial) facilities and, in the case of free-range flocks, range areas.

Air quality and thermal environment

E 8.1 Producers must assess air quality at bird height on a daily basis.

E 8.2 LEGAL Ventilation systems, natural or forced, must be designed and managed to maintain air quality, to ensure that aerial contaminants do not reach a level, at bird height, at which they are noticeably unpleasant to a human observer.

Air quality parameters should be maintained under all foreseeable climatic conditions, below the following levels at bird head height:

Ammonia	**20ppm**
Carbon dioxide	**3,000ppm**
Carbon monoxide	**50ppm (averaged over an 8 hour period)**
Inhalable dust	**10mg/m^3 (averaged over an 8 hour period)**

The measurement for relative humidity should be between 50 and 70%.

Where practically feasible, air quality parameters, i.e. ammonia, carbon dioxide, carbon monoxide, etc. should be measured and recorded on a weekly basis. Where a level higher than that specified within the standards is recorded, daily recordings should be made until an acceptable level is achieved and maintained.

Where possible, these levels should be automatically recorded.

E 8.3 Provision must be made to ensure that hens have access to a thermally comfortable environment at all times, so that heat/cold stress does not occur.

E 8.4 Stock-keepers must:

a) have access to a copy of the Defra booklet, *Heat Stress in Poultry: Solving the Problem* (PB 10543, 2005)

b) be familiar with its content

c) adopt its recommendations, where appropriate.

Nest boxes

E 9.1 Nest boxes must be:

a) provided at not less than 1 per 5 hens if individual boxes, or 1m^2 of nesting substrate per 120 hens for group nesting

b) enclosed and draught-free.

E 9.2 Nest boxes must be provided with a suitable floor substrate that:

a) encourages nesting behaviour

b) minimises the risk of build-up of parasites and disease

c) is managed hygienically

d) does not consist of wire or plastic-coated wire that can come into contact with the birds.

Hens should be given sufficient time to become accustomed to the nest boxes prior to coming into lay. Any floor eggs should be picked up promptly and the provision of loose material can help encourage hens to use the nest boxes at the start of lay. Attention should be paid to any nest boxes being over-populated.

Suitable floor substrates for nest boxes include clean straw, Astro Turf or dimpled rubber mats.

Where nest boxes are situated in the middle of a system and access to facilities, such as the litter or range, is only available on one side of the house, there should be adequate crossovers for birds to easily access such facilities. It is recommended that crossovers should be incorporated at the same number and size as popholes (see R 3.2, R 3.3 and R 3.4) and calculated in terms of usable area and expected number of birds using the area behind the nest boxes.

E 9.3 Nest box lighting must only be used:

a) in the morning and

b) during initial nest box training, or

c) temporarily to help keep nest box usage even.

None or limited use of nest box lighting has been shown to help minimise the risk of injurious feather pecking.

Perches

These standards apply to all perching provided in a system, including the alighting rail immediately in front of the nest boxes.

All housing for laying hens should provide at least 15cm of perch space per hen, according to Council Directive 1999/74/EC laying down minimum standards for the protection of laying hens.

Interpretation of this legislation differs in the different devolved areas of the UK. In England and Wales, legislation permits perches that are integrated within slatted flooring to contribute towards this provision. In Scotland and Northern Ireland, however, all perches must be raised.

For the purpose of these standards:

- ***'perch(es)'* refers to all types of perch, both raised and integrated into the slat*;***
- ***'raised perch(es)'* refers to perches set above the floor, slat, or tier surface at a height that allows hens to rest without disturbance from hens below.**

E 10.1 For all flocks, perches must be provided at not less than 15cm per hen, of which:

a) in multi-tier systems, at least 15cm per hen must be raised

b) in flat deck systems at least 8cm must be raised per bird and preferably 15cm.

E 10.1.1 In accordance with E 10.1 b), where slatted flooring is included as perching to meet the 15cm per hen requirement:

a) perches must be incorporated within the floor structure or attached on top of the floor surface, and

b) there must be a gap of no less than 1.5cm on either side of the slat (perch) to allow hens to grip the slat (perch) without trapping their claws

c) this must be provided at no less than 460cm^2 per bird.

Perches are used both during the day for resting and refuge and at night for roosting.

Provision of perches for daytime use allows resting birds and subordinate birds to separate themselves from active or aggressive birds, respectively. Provision of perches for daytime use can therefore help to reduce feather loss from injurious pecking. During the day, only a proportion of birds will utilise the perches. The minimum 8cm requirement in existing flat deck systems (see E 10.1) aims to provide sufficient perching space for the number of birds choosing to perch at any one time during the day.

At night, hens are motivated to seek high roosting spots and will do so when given the opportunity. To allow all birds to roost at night, a minimum of 15cm raised perch provision per bird is necessary. Birds provided with this level of provision have been shown to have reduced stress, reduced fearfulness and improved body condition. Therefore, to ensure maximum welfare benefit to the birds, the RSPCA strongly recommends that a minimum of 15cm is provided wherever possible. However, it is recognised that it may be challenging to retro-fit 15cm of well-positioned raised perch space per bird in some existing systems.

See Appendix 3 for a case study demonstrating the benefits of providing 15cm of raised perch per hen in commercial systems.

Aerial perch height should be such that hens are prevented from pecking each other in the vent area. As a guide, perches should be available at about 50cm vertical distance above the slats/other perches.

E 10.2 LEGAL Perches must not be mounted above the litter.

E 10.3 All raised perches must:

a) be sited at least 20cm from a wall

b) have a horizontal distance of at least 30cm between them.

E 10.3.1 Raised perches installed in flat deck systems must:

a) be at least 30cm apart from each other in all directions

b) have no more than 80cm distance between the perch and the next available landing surface/approach aid

c) have a vertical distance of at least 45cm and not more than 60cm from the slats to the first perch

d) be positioned no more than 45 degrees to adjacent perches (measured at the horizontal plane)

e) have at least 45cm clear space above the perch to allow birds to stand in a normal upright position

f) not be sited directly above one another, i.e. in a vertical plane (ladder formation), unless intermediate perches are provided to allow birds free access

g) be fixed and not free swinging.

In relation to E 10.3.1 g) (above), free or swinging perches, including drinker lines, may be tethered, for example using bungee cords, to limit any movement when birds take off and land. It is not necessary for perches to be rigidly fixed.

The design and placement of perches is very important in helping to reduce the risk of keel bone damage. Standards E 10.3 and E 10.3.1 (a-g) incorporate research findings to help ensure the risk of keel bone damage is minimised. The research informing some of these standards is as follows:

E 10.3.1 a) and b): distance between perches/the landing surface/approach aid of between 30-80cm: the ability of hens to navigate perches is negatively affected by increasing the distance between them[1, 2, 3]; distances greater than 80cm are associated with increased clumsy landings, misses and refusals to jump[3]. Clumsy landings are thought to increase risk of keel bone damage. Legislation requires that perches are at least 30cm apart[4].

E 10.3.1 c): minimum distance of 45cm from the first slat: this standard represents a balance between meeting the birds' preference for high resting places[5, 6, 7], the need to separate resting birds from the rest of the flock (to prevent pecking)[8], and the birds' ability to access/dismount perches with ease[9]. Poor landings are shown to increase when the vertical distance a hen has to travel between perches is greater than 50cm[1] and both the incidence and severity of keel fractures can increase with increased perch height[10]. EFSA's Panel on Animal Health and Welfare recommends a minimum perch height of 60cm[9], although they suggest that 'small sized steps' of around 40cm will help to make the perches more accessible. SRUC[8] recommends the vertical height of the first perch is 45-60cm from the surface to which it is secured with perches spaced adequately apart. Perches should be designed to allow birds to perch high enough that birds below cannot peck at them[8].

E 10.3.1 d): angles between perches of less than 45º: this helps prevent poor landings and is particularly important for downward jumps[3, 8]. Several studies and reports[5, 8, 9, 11] recommend angles of less than 45º between perches, with the proportion of successful jumps increasing as the angle is reduced[1, 11].

References

[1]Scholz, B., Kjaer, J.B. and Schrader, L. (2014) Analysis of landing behaviour of three layer lines on different perch designs. British Poultry Science, 55:4, 419-426.

[2]Scott, G.B. and Parker, C. A. L. (1994) The ability of laying hens to negotiate between horizontal perches, Applied Animal Behaviour Science, 42: 121-127.

[3]Moinard, C., Statham, P., Haskell, M. J., McCorquodale, C., Jones, R. B. And Green, P. R. (2004) Accuracy of laying hens in jumping upwards and downwards between perches in different light environments, Applied Animal Behaviour Science, 85: 77-92.

[4]COUNCIL DIRECTIVE 1999/74/EC

[5]Struelens, E., and Tuyttens, F. A. M. (2009) Effects of perch design on behaviour and health of laying hens, Animal Welfare, 18: 533 – 538.

[6]Brendler, C., and Schrader, L. (2016) Perch use by laying hens in aviary systems, Applied Animal Behaviour Science, 182: 9-14.

[7]Shrader, L. and Müller, B. (2009) Night-time roosting in the domestic fowl: the height matters, Applied Animal Behaviour Science, 121: 179-183.

[8]SRUC (2007) Technical Note: Perch Designs for Extensive Systems. Available from: https://www.sruc.ac.uk/media/nyulciuv/tn598perchdesigns.pdf.

[9]European Food Safety Authority (2015) Scientific Opinion on welfare aspects of the use of perches for laying hens. EFSA. Italy.

[10]Wilkins, L. J., McKinstry J. L., Avery, N. C., Knowles, T. G., Brown, S. N., Tarlton, J. And Nicol, C. J. (2011) Influence of housing system and design on bone strength and keel bone fractures in laying hens, Veterinary Record, 169:414.

[11]Scott, G. B., Lambe, N. R. And Hitchcock, D. (1997) Ability of laying hens to negotiate horizontal perches at different heights, separated by different angles, British Poultry Science, 38: 48-54.

Perches can be provided in flat deck systems in a number of ways, which will be dependent upon the shed design and producer preferences. Producers have suggested the following as feasible options in various systems:

Over feed tracks: perches should be positioned at a height that prevents birds from perching on the edge of the feed track, which may be detrimental to foot health and could result in soiling of feed; many producers raise the feed track to maintain good movement throughout the house underneath the track.

A-frame perches: many system manufacturers have A-frame perches specifically designed for flat deck systems. However, the RSPCA Farm Animals Department has also seen very effective 'home-made' A frames. Rather than adding A-frames to the full length of the house, shorter lengths of A-frame perches may allow easier stock-keeper movement. Shorter sections of A-frame perches can be lightweight and easy to move, any lost length can be made up in walk-overs.

Nest box alighting rails: these can be counted towards perch space requirements.

Edge of slats: provided they are sufficiently high above the scratch area (>45cm), slat edges that the birds can wrap their toes around may count towards perch provision. Care should be taken to ensure bird access to the slatted area is not hindered in any way by birds perching on the slat edges. This may be achieved with suitable gaps in the slatted edge perch provision.

Perches over drinker lines may be permitted.

The RSPCA Farm Animals Department can provide further guidance regarding perch position.

A-frame perches with integrated feed tracks which require birds to perch in order to feed are not recommended. Laying hens prefer to feed at ground level, using perches for resting and preening. Active (feeding) and resting (perching) behaviours should be provided for in separate areas wherever possible. The RSPCA is considering standards in relation to "perch feeding" for possible inclusion in future standards revisions.

E 10.4 For a graspable edge to count towards the raised perch requirements of E 10.1 then hens must be able to:

a) wrap their toes around it, and

b) adopt a comfortable perching position.

In relation to E 10.4, as a guide, perches should have a diameter of between 3-5cm. Further, a rounded profile with a flattened top appears to be most suitable in terms of perch shape.

E 10.5 Perches must:

a) have an appropriate top surface width that supports the birds' feet

b) have no sharp edges

c) be designed and constructed to avoid damage to the feet.

Whilst some evidence from scientific research indicates that in terms of the perch shape hens have no preference, other studies have demonstrated that rectangular perches are used more than circular perches, on which birds are unsteady. Foot damage has also been shown to be less in birds provided with rectangular perches than with circular perches.

In terms of material, birds have been shown to perch most on slightly rough surfaces (e.g. softwood or vinyl-padded), which give more grip for their feet, and the least on smoother, plastic perches. Whilst hygiene is often better on plastic perches, they have been shown to result in increased incidences of bumblefoot compared to welded wire and wooden perches.

E 10.6 Perches must be positioned to minimise fouling of any hens below.

Producers should note that on interpretation of Council Directive 1999/74/EC laying down minimum standards for the protection of laying hens, slatted floors are not considered as perches in Scotland or Northern Ireland, where producers have reported positive welfare and production results from using aerial perching. Aerial perching for all hens may be required in the UK in the future.

Raised perches in multi-tier systems

The design and placement of perches in multi-tier systems is important to help birds navigate the system and access resources without injury. Perch position can also affect how well individual perches are used[1,2] and a lack of 'preferred' perch sites may lead to frustration[1].

The principles underlying standard E 10.3.1 (a-g), see Information Box on page 24, are relevant to both flat deck and multi-tier systems.

However, there are additional factors in multi-tier systems that will affect perch use and must therefore be considered.

The RSPCA recommends the following criteria are implemented in multi-tier systems in order to try and maximise the welfare benefits of providing perches within these systems:

Perches in multi-tier systems should:

a) be at least 30cm apart from each other in all directions;

b) have no more than 80cm distance between the perch and the next available landing surface/ approach aid;

c) allow birds to stand in a normal upright position;

d) be positioned no more than 45° to adjacent perches (measured at the horizontal plane);

e) have a vertical distance of at least 45cm and not more than 60cm from the slat to the first perch, *or* be positioned towards the edge of the slats so that perching birds have an unobstructed view of the floor which is at least 45cm distance from the perch, *or* be sited on the top tier(s).

Note: with regard to c), above: for perches sited directly below a solid structure (e.g. manure belt) there should be a minimum of 45cm clear space between the perch and the structure; and, for perches sited directly below another perch the minimum distance specified in a) may be sufficient to enable birds to stand in an upright position, but would need to be demonstrated on farm.

Recommendation e), above, incorporates research findings to help prevent overcrowding of favoured perches, which risks displacement and injury, and maximise the availability of 'preferred' perch space.

Research shows that perches within lower tiers are underutilised at night when birds appear to seek the highest available resting space, whilst those on the upper tiers are well used and may be overcrowded (>100% occupancy based on 15cm per bird)[1, 2]. Campbell et al (2016) suggested, *'it may be beneficial to consider whether system designs can be developed which provide more perches higher in the system'*.

Perches towards tier edges may also be preferred. Campbell et al (2016) demonstrated that perch use generally decreased with distance from the open side of the tier[1]. It is suggested that hens perching at or towards the edge of tiers may have a sense of elevation[2, 3], even when perches are relatively low to the tier floor.

The RSPCA is working with system manufacturers to develop perch standards that can be applied in multi-tier systems and deliver maximum welfare impact, with the aim of incorporating the above as standards in the next revision of this publication.

References

[1]Campbell, D. L. M., Makagon, M. M., Swanson, J. C. and Siegford, J. M. (2016) Perch use by hens in a commercial aviary, Poultry Science, 00:1-7

[2]Brendler, C. and Schrader, L. (2015) Perch use by laying hens in aviary systems, Applied Animal Behaviour Science, 182:9-14

[3]European Food Safety Authority (2015) Scientific Opinion on welfare aspects of the use of perches for laying hens. EFSA. Italy.

In multi-tier systems, perches are often positioned above feed tracks but may not meet the above recommendations (particularly c & e). Perches above feed tracks that do not meet the above recommendations should not be removed, but should remain as additional perch space. Feedback from system manufacturers suggests removal of such perches could be detrimental to welfare, resulting in birds perching on the edge of feed troughs, leading to foot damage and soiling of feed.

Perches and Keel Bone Damage

Laying hens are highly motivated to perch. In order to meet this behavioural need, raised perches must be provided within laying hen housing. The RSPCA is aware of scientific studies which show that the risk of keel bone damage (KBD) can be increased with the inclusion of raised perches. However, the risk of KBD is not removed in the absence of raised perches and the incidence can still be high in housing where raised perches are not provided (i.e. slats only). There is evidence that, where perches are provided, the risks of KBD can be mitigated with careful consideration of perch placement and perch design. In addition, nutrition, management, rearing conditions and genetics can all have an impact on levels of KBD.

A controlled study[1] of 5 commercial flocks, each house divided in two – half with raised perches, half without – found no overall difference in the risk of KBD between perch and non-perch housing, with perches increasing the probability of the highest KBD scores in one farm, but not the others. In two farms perches reduced the probability of severe damage. The authors concluded: ***the use of aerial perches in commercial free-range laying hen systems does not uniformly contribute to increased keel bone injuries...where they occur, they are likely to be related to poor house and perch design.***

Reducing perch height and angles and distances between them can help to facilitate navigation between perches which can help to reduce the incidence of poor/misjudged landings associated with KBD. The requirements of standard E 10.3.1 are based on current knowledge of how best to position perches in order to reduce the risk of KBD. The minimum requirement of only 8cm of raised perch per bird (standard E 10.1), rather than 15cm, allows greater flexibility in terms of perch position and enables perches to remain relatively low to the slat, thereby reducing KBD risk.

The Farm Animal Welfare Committee (2010)[2] in its report on bone fractures in laying hens concluded: ***Provision of raised perches in non-cage systems sometimes increases the prevalence of fractures, particularly of the keel bone, but there are other benefits for welfare.*** It is because of these other benefits to welfare that the RSPCA believes it is necessary to provide laying hens with raised perches. Providing raised perches satisfies hens' strong behavioural motivation to perch and can result in reduced aggression, reduced fearfulness and improved body condition[3] and reduced injurious pecking[4].

References

[1]Donaldson, C. J., Ball, M. E. E. and O'Connell, N. E. (2012) Aerial perches and free-range laying hens: The effect of access to aerial perches and of individual bird parameters, improved strength parameters on keel bone injuries in commercial free-range hens, Poultry Science, 91: 305-315

[2]FAWC (2010) FAWC opinion on osteoporosis and bone fractures in laying hens, Farm Animal Welfare Council, UK.

[3]Donaldson, C. J. and O'Connell, N. E. (2012) The influence of access to aerial perches on fearfulness, social behaviour and production parameters in free-range laying hens, Applied Animal Behaviour Science, 142: 51-60.

[4]Lambton, S. L., Knowles, T. G., Yorke, C. and Nicol, C. J. (2010) The risk factors affecting the development of gentle and severe feather pecking in loose housed laying hens, Applied Animal Behaviour Science, 123: 32-42.

Multi-tier

These standards are specific to any system incorporating raised tiers. Producers requiring further advice should liaise with the RSPCA Farm Animals Department.

A well managed and well designed multi-tier system can provide an effective and welfare-friendly housing system for laying hens. Providing tiers above the floor level provides an element of environmental complexity, allowing birds greater opportunity to exercise, explore and access high areas, whether for roosting, resting or refuge. Experience suggests that multi-tier housing can help to reduce the risk of injurious pecking by providing plenty of perching space away from active hens and providing opportunity for escape. Manure belts below each tier remove faeces on a regular basis helping to aid good air quality management. Despite suggestions that fewer hens utilise the range in free-range multi-tier systems, we are not aware of any evidence which substantiates this concern.

E 11.1 The following multi-tier standards must be read in conjunction with the rest of this document.

A tier is defined as a raised slatted area that may provide perches, food and/or water for the birds and provides access for birds underneath.

Tiers, in addition to floor area, can be counted as usable area.

Slats are defined as a slatted or mesh area where there is a droppings pit underneath. Such slats are not regarded as tiers and count as floor area (in addition to the litter) as in non-tiered units.

E 11.2 The overall design of multi-tier systems must:

a) allow for proper inspection of all birds at all levels

b) enable immediate access to any sick, injured or dead birds which require removal

c) allow and encourage free movement within and around the system, meaning no system preventing full access along the length of the tier will be permitted.

With reference to E 11.2 c), knowledge and experience of multi-tier systems which are, for example, similar to enriched cages but without doors (i.e. with a nest, water and food available in separate sections along the length of the tier and access down to litter, and range where available), strongly suggests that the birds are not as active as can be seen in other designs of multi-tier. This leads to further concerns that where range is available birds in such systems will not use it fully.

Further advice should be sought from the RSPCA Farm Animals Department.

E 11.3 Consideration must be given to the placement and removal of flocks when implementing multi-tier systems in new or existing buildings, ensuring ready access for careful handling of birds at all levels, without causing injury.

E 11.4 Where birds are on tiers above head height, there must be facilities provided to ensure that those involved with catching or inspection procedures do not have to climb on the side of the tiered structure.

E 11.5 The maximum stocking density must:

a) not exceed 9 birds/m^2 of usable area

b) when calculated at floor level, not exceed 15 birds/m².

E 11.6 Each tier must:

a) facilitate the movement of birds between the different tiers, and between tiers and slats

b) ensure that birds can gain access to the floor area

c) ensure that birds can gain access to the range area in the case of free-range systems.

E 11.7 All tiers must have a manure belt removal system, which must be run at frequent intervals (and in any case at least once a week).

E 11.8 The maximum height of the highest tier (measured from the litter floor area to the underside of the manure belt of the highest tier) from which birds directly descend to the floor must not exceed 2m.

E 11.8.1 Any tier higher than 2m (see standard E 11.8) must:

a) incorporate a walkway enabling a stock person to walk unhindered along the full length of the tier to inspect the birds (see Appendix 4 for explanatory diagram);

b) provide access to intermediate tiers to allow hens access to the floor in accordance with standard E 11.8.

E 11.9 The vertical distance between the different tiers (including the floor to first tier) must be at least 0.5m high and no more than 1m (measured from the slatted or floor level to the underside of the manure belt).

E 11.10 Where birds move diagonally across tiers at different heights, or from tiers to slats and vice versa, the angle of descent must be no more than 45°.

E 11.11 For all new multi-tier systems built after 10th August 2018, the horizontal distance between different tiers or between slats and tiers must be:

a) no more than 80cm to allow birds to move between the tiers/slats, or

b) greater than 2m to prevent bird movement between the tiers.

In existing multi-tier systems where distances do not conform to standard E 11.11, it is recommended that steps are taken to enable easier bird movement, for example, by the addition of alighting rails, ramps, platforms and effective lighting of tiers.

Distances greater than 80cm have been shown to be associated with an increase in misjudged or clumsy landings which in turn increase the risk of keel bone damage.

E 11.12 Where ramps are used, care must be taken to minimise the risk of droppings falling on birds below.

The use of ramps may be incorporated within the design to facilitate the movement of birds from the floor to the first raised tier.

E 11.13 The maximum number of raised tiers directly above each other must not exceed 2 (see Appendix 4 for explanatory diagram).

It is recommended that ramps and platforms are provided to assist bird movement.

Research by Stratmann et al (2015) demonstrated that hens provided with ramps had a 23% lower fracture incidence, 45% fewer falls, 59% fewer collisions and 44% more controlled movements. Platforms were also shown to improve controlled movements around the house.

Research by Nasr et al (2012) and Nasr et al (2013) has shown that hens with keel bone fractures have reduced egg production and lower egg quality scores than hens without keel bone fractures.

References:

Stratmann, A., Fröhlich, E. K. F., Gebhardt-Henrich, S. G., Harlander-Matauschek, A., Würbel, H., and Toscano, M. J. (2015) Modification of aviary design reduces incidence of falls, collisions and keel bone damage in laying hens, *Applied Animal Behaviour Science,* 165: 11-123

Nasr, M. A.F., Murrell, J., Wilkins, L. J., and Nicol, C. J. (2012) The effect of keel fractures on egg production parameters, mobility and behaviour in individual laying hens, *Animal Welfare,* 21: 127-135

Nasr, M.A.F, Murrell, J., and Nicol, C. J. (2013) The effect of keel fractures on egg production, feed and water consumption in individual egg laying hens, *British Poultry Science,* 54: 165-170

E 11.14 Where slats are present, a maximum of only 1 raised tier may be installed above this area.

E 11.15 Where birds are given access to the range the maximum distance they have to travel to the nearest pophole measured on floor area must be no more than 20m.

Where possible, birds should be given access to the range area from both sides of the building in order to encourage ranging behaviour.

E 11.16 Hens must not have to travel more than 8m in the house to reach food and water.

E 11.17 NEW Barriers that prevent birds gaining access to underneath the system must not be used, except:

a) up to the first seven days after placement (to assist with training the pullets to roost), and

b) at the time of depopulation.

NEW **In the first days following placement of birds into the house, any birds remaining on the litter after the lights have been switched off should be lifted onto the system. This will train birds to roost on the system. Practical experience suggests birds can be trained to roost on the system within three days of placement.**

Environmental enrichment

E 12.1 For every 1,000 birds there must be at least 2 items of environmental enrichment inside the house, which must:

a) be permanently available to the birds

b) include some destructible forms of enrichment.

The inclusion of environmental enrichment has been shown to improve hen health and welfare by encouraging activity and decreasing the risk of injurious feather pecking. A variety of sufficient items, which are safe for bird use, should be appropriately placed throughout the unit to promote activity and interest and provide all birds with an opportunity to explore them.

Examples of environmental enrichment include hanging knotted rope/string, pecking blocks, vegetables and plastic bottles with coloured water, and providing dustbathing boxes, straw bales and plastic-wrapped bales of shavings.

Supplying a variety of such items and regularly changing them is strongly recommended to help maintain interest.

The provision of pecking blocks placed on the slatted area and knotted rope/string has been shown to be particularly beneficial in helping minimise injurious feather pecking. Breeze blocks are not advisable for pecking due to the nature of the ingredients, but blocks made with feed may be used. Rope/string can be suspended or attached to posts at hen head height and it is recommended to knot it near each end to prevent the entire rope from fraying.

Providing safe refuges, resting areas and visual barriers can help further. This can be in the form of perches, straw bales and areas of varied heights.

The University of Bristol's FeatherWel document *Improving Feather Cover – a guide to reducing the risk of injurious pecking occurring in non-cage laying hens* and website www.featherwel.org/featherwel/ should be consulted for further advice about enrichment.

Acceptable forms of destructible pecking enrichment include: whole small straw bales added to the litter area; suspended hay nets filled with: straw, hay, alfalfa blocks, egg trays or other suitable material; pecking blocks; brassicas; knotted rope/string.

Adding straw bales to the littered area can provide several benefits in addition to providing foraging opportunities such as helping to improve litter quality, providing refuge areas, and aiding access to popholes.

It is strongly recommended that hens in all systems are provided with access to a veranda or wintergarden.

Verandas, or wintergardens, provide fresh air and natural light whilst reducing exposure to sun, wind and precipitation. By reducing the stocking density in the house, verandas can help to manage and maintain litter condition and encourage greater activity. They provide an excellent location for additional foraging materials and dust-baths without leading to crowding of the house. Experience suggests that verandas should be at least 2m wide.

In free-range units, verandas may also encourage ranging and can help protect the litter within the main house.

During a disease outbreak, a housing order may be put in place. For free-range birds, a wintergarden or veranda can offer the additional space, litter and natural light the birds are used to, whilst preventing contact with wild bird populations.

Climate change and animal welfare

The issues relating to climate change have the potential to significantly affect the welfare of farm animals. The RSPCA believes that it is now appropriate to react to, think ahead, and consider what can reasonably be done to mitigate any negative effects that adverse weather conditions may have/be having on the welfare of farm animals now, and in the future.

Examples of important considerations include:

- **the need to ensure that the farm buildings can withstand more severe weather conditions will become more necessary**
- **ensuring that ventilation systems are working efficiently will be even more important, particularly as poultry are vulnerable to adverse temperature changes**
- **there may be reduced water availability for drinking, so ensuring that drinking water systems are working efficiently will be even more important.**

The range

The RSPCA welfare standards for laying hens can be applied to barn or free-range systems. The following standards relate to range, where provided.

Management

R 1.1 A Range Management Plan, incorporating the standards in the range section, must be developed, implemented and annually updated.

The Range Management Plan (R 1.1) is intended to help establish a focus on range quality and management as well as helping to show how the range standards are being met. As a guide, the following should be included:

- **general details about the range – total available area, number of birds, stocking density**
- **map – total range area, location of shade/shelters, natural cover, enrichment, rotated areas**
- **protective overhead shade/shelter – type (natural/artificial), amount**
- **natural cover – type, amount (expected area if not fully grown)**
- **enrichment areas for dustbathing/perching/foraging – type, number, management**
- **range use – e.g. shelters/enrichment rotation**
- **strategy for heavily worn and poached areas**
- **strategy to minimise build up of parasites/disease**
- **details of any planned rotation of range areas**
- **details of management of the area directly outside the popholes**
- **procedure before new flock is placed – plan for heavily contaminated areas**
- **general comments – observations of range use and any future plans.**

R 1.2 LEGAL Laying hens kept in free-range systems must have continuous daytime access to the range.

R 1.3 Where birds are intended to be kept for free-range purposes, they must be given access to the range:

a) within 3 weeks of entering the house at the latest (also see R 3.1)

b) in any case from 21 weeks of age at the latest.

Evidence strongly suggests that early access to the range can increase ranging behaviours and decrease the risk of injurious feather pecking. It is therefore strongly recommended to introduce birds to the range area as soon as possible after arrival at the laying hen unit.

A possible way of achieving this, while allowing the hens to get used to using the nest boxes inside in the morning, is to allow access outside in the afternoon to begin with. Also, a gradual approach to help the birds acclimatise before access to the range is given could involve allowing access to a veranda (where present) first, or using a temporary mesh over the popholes in the first few days to allow daylight and natural ventilation in to the house.

R 1.4 Where buildings are converted from barn to free-range when birds are older than 21 weeks, access to the range must be delayed until a new flock is placed (see R 1.3).

R 1.5 The range area must be actively managed in order to:

a) encourage birds outside, away from the popholes and to use the area fully

b) prevent and/or manage heavily poached/muddy/worn areas

c) minimise any build up of parasites or disease.

The aims of active management of the range are to encourage bird use as they can be fearful of exposed areas, help to maintain vegetation quality (including the area under shelters/ cover/enrichment) and offer protection and shelter. Ways of satisfying R 1.5 may include:

- **provision of natural cover such as trees, bushes and hedgerows**
- **provision of a variety of types of both natural and artificial shade/shelters**
- **appropriate distribution of shade/shelter and natural cover depending on the behaviour of the individual flock and distance hens are comfortable travelling between sources of overhead cover**
- **provision of a 'corridor' of shade/shelter and natural cover to encourage birds onto the range**
- **provision of artificial shade/shelters within the first 20m from the house and gradual moving of some further into the range**
- **provision of well-managed areas of enrichment and variation, which may include suitable feed crops, herbs, trees and fruit bushes**
- **provision of well-managed designated areas with additional facilities for dustbathing, perching and foraging, such as brashings from trees and covered sand areas**
- **provision of good vegetation cover as close to the house as possible**
- **practice of paddock rotation to promote range quality**
- **restricted access to muddy/poached/worn areas to allow re-growth of vegetation**
- **drainage improvements to prevent poached areas developing**
- **particular attention being paid to the area immediately outside the popholes and up to about 30m from the popholes**
- **surface tilling of the land to help remove worm eggs**
- **introduction of other species such as llamas and alpacas where appropriate, which can help to encourage birds outside and protect against predators**
- **situating popholes on more than one side of the house, which can be of particular importance in units with central nest boxes**
- **provision of wind breaks, which may combine with provision of natural cover and shade/shelter**
- **regular inspections of the range, which are necessary for effective management and can also be a good opportunity to help lead the birds out to different areas.**

European egg marketing regulations (EC 589/2008) require the range to be mainly covered with vegetation, but do not permit range areas to be used for other purposes, except for orchards, woodlands and livestock grazing. As such, arable cropping should not be regarded as acceptable vegetation on the range and shall be excluded from calculations for stocking density, except where plots of such crops are planted specifically to provide effective and appropriate shade/ shelter and/or enrichment for birds on the range.

R 1.6 The area directly outside the popholes must:

a) not be allowed to remain in a muddy condition or with standing water

b) be maintained with short vegetation and/or,

c) be covered with a draining material.

Management of draining material and/or short vegetation outside popholes, an area which can be heavily used, is particularly important in helping to control worms, by exposure of droppings to ultraviolet sunlight and preventing puddles from which the birds can drink contaminated water.

Examples of draining material, which can also help to clean birds' feet, include stones, bark, and slats/mesh, which do not have the potential to damage or trap the birds' feet. The relevant distance from the popholes in which to maintain this area will depend on the individual unit, but as a guide should be at least 3m.

Evidence also suggests that good vegetation cover outside the popholes can help to encourage hens out on to the range. This should be taken into careful consideration when managing the pophole area and natural vegetation cover should be in place as close as possible to the house.

Appropriate drainage from the roof and amount of overhang should also be considered, as well as the use of verandas/wintergardens. In addition, shade/shelter, natural cover and range enrichment should be distributed throughout the range in a way to help attract birds away from the popholes and to use the whole of the outside area.

R 1.7 LEGAL The perimeter of the range must be within 350m from the house.

To help to maintain the correct number of birds housed inside in each colony, the range area should be divided between different colonies of birds to at least a 50m distance from the house.

Due consideration should be given to how the shape of the range could affect how evenly the hens use the total range area. For example, access to a wide, rather than narrow, range area may help to manage range quality directly outside the popholes. As a guide, housing should not be any closer than 50m to the range boundaries on more than two sides of the house.

R 1.8 Where there is a risk of build-up of parasites or disease on free-range land, rotational grazing or other disease control measures must be applied.

R 1.9 Action must be taken as necessary to address areas with heavily contaminated soil before new birds arrive.

R 1.10 A plan for regular worming must be drawn up within the Veterinary Health and Welfare Plan (VHWP) (see H 1.1) and carried out on the basis of previous experience, results of regular monitoring and discussion with the attending veterinarian.

Birds can become infected by picking up worm eggs, which thrive in warm, moist conditions and can be a particular problem in spring and summer, from grass, soil or faeces. Worming should be carried out as regularly as necessary to avoid subsequent build-up and to help break the cycle of infection. Worm burdens should be regularly monitored by examination of faeces, culled birds, or worm egg counts on bulk faeces.

R 1.11 NEW Except where at least one of the conditions specified in the information box below apply, all buildings that are newly approved under the farm assurance scheme applying these standards must:

a) allow birds to exit the popholes directly onto the main range area

b) have at least one third of the popholes with a minimum distance of 20m directly opposite to the perimeter of the range

c) meet b) with respect to all sides of the shed where popholes are provided.

NEW **Although the RSPCA strongly recommends that all free-range buildings should meet standard R 1.11, this standard does not currently apply to newly approved buildings where at least one of the following conditions applied prior to 11th July 2025 and can be clearly evidenced:**

- **a written contract with an egg packer was in place to produce eggs to the previous version (August 2017) of these standards from the building(s) affected, or**
- **planning permission was submitted to erect the building(s) affected and they were specifically designed and being built to meet the previous version (August 2017) of these standards, or**
- **significant capital was invested into the affected building(s) or its infrastructure specifically in order to produce eggs to the previous version (August 2017) of these standards.**

For further advice and guidance please contact the assurance scheme responsible for assessing these standards.

NEW **Standard R 1.11 helps ensure that hens can exit the house directly onto an open range area, rather than having to walk along narrow corridors, such as between buildings, to access the range. Providing hens with direct access to the main range is a key factor in encouraging ranging.**

The RSPCA will review bird range use on those units with existing buildings prior to 11th July 2025, operating to the previous version of this standard (August 2017), and consider the impact that full compliance with standard R 1.11 will have. This review will inform the next standards review.

R 1.12 NEW Any fencing or restrictions outside the unit must not inhibit the hens' ability to access the range area.

Shade/shelter

R 2.1 REVISED LEGAL Shade/shelter must:

a) be provided at an area of at least 8m^2 per 1,000 birds

b) be available at all times from when the hens first have access to the range

c) offer adequate protection from inclement weather and overhead predators

d) be available from a distance of no more than 20m from the popholes

e) be distributed at a minimum distribution of four shelters per hectare

f) be of sound construction, secure and not pose any welfare risks, including injury, to the birds.

Calculation of overhead shade/shelter area referred to in R 2.1 is based on the actual amount of cover provided underneath. For example, hedgerows may be included if they can provide shade at all times of day and there is enough room underneath for hen access. Where trees are deciduous or immature, supplementary shelters will need to be provided during the period in which they cannot provide sufficient cover. Trailers and simple constructions of four downward posts with a solid roof can provide acceptable forms of artificial shelter providing they can satisfy all the requirements of R 2.1.

Popholes

R 3.1 Popholes must be opened, unless bad weather or veterinary advice dictates otherwise:

a) no later than 12pm for birds aged under 21 weeks

b) no later than 9am for birds aged 21 weeks and older.

R 3.1.1 Popholes must be closed:

a) no earlier than at the time at which artificial lights are being turned off inside the house for birds aged under 21 weeks

b) at dusk for birds aged 21 weeks and older.

If it is necessary to restrict access to the range while the birds are learning to use the nest boxes inside, R 3.1 a) applies and producers should aim to make the opening time gradually earlier as the birds approach 21 weeks, when R 3.1 b) applies.

Allowing hens access to the range before the onset of lay rather than once they are in lay has been shown to increase ranging behaviour.

R 3.2 For flocks of over 1,200 birds each pophole must be at least 45cm high and 2m wide to allow the passage of more than one hen at a time.

R 3.3 For flocks/colonies of birds with 1,200 birds or fewer, the following applies (for flocks of 1,201 birds and above, see R 3.2):

a) there must be a minimum of 2 popholes

b) popholes must be at least 50cm wide and 45cm high

c)

Number of birds	**Minimum total pophole length (metres)**
Up to 300 birds	1.0
301 to 600 birds	1.5
601 to 900 birds	2.0
901 to 1,200 birds	2.5

R 3.4 There must be at least 1 pophole per 600 birds, except where popholes are wider than 2m in which case the total length of available popholes may be used in calculations of pophole requirements for a house.

R 3.5 NEW For buildings:

a) currently approved by the farm assurance scheme applying these standards, where the base of the pophole is more than 45cm from the house floor (excluding the litter covering) and/or the range ground level (excluding grass height), ramps and/or platforms must be provided along the full length of the pophole for the birds to easily access the pophole.

b) that are newly approved under the farm assurance scheme applying these standards, the base of the pophole must not be more than 25cm above the house floor (excluding the litter covering) or the range ground level (excluding grass height), except where at least one of the conditions specified in the information box below apply.

NEW Although the RSPCA strongly recommends that all free-range buildings should meet standard R 3.5 b), this standard does not currently apply to newly approved buildings where at least one of the following conditions applied prior to 11th July 2025 and can be clearly evidenced:

- **a written contract with an egg packer was in place to produce eggs to the previous version (August 2017) of these standards from the building(s) affected, or**
- **planning permission was submitted to erect the building(s) affected and they were specifically designed and being built to meet the previous version (August 2017) of these standards, or**
- **significant capital was invested into the affected building(s) or its infrastructure specifically in order to produce eggs to the previous version (August 2017) of these standards.**

For further advice and guidance please contact the assurance scheme responsible for assessing these standards.

NEW The RSPCA strongly recommends that all free-range systems meet standard R 3.5 b). A maximum height of 25cm to the base of the pophole enables birds to have a clear view of the range and aids movements between the inside of the house and the range area. This will encourage more birds outside onto the range area where they will be able to perform important natural behaviours.

R 3.6 NEW LEGAL In relation to standard R 3.5 a) where:

a) platforms are to be included within the calculated usable area, they must be at least 30cm wide

b) ramps are present, if the area underneath the ramps is to be included within the calculated usable area, they must have a headroom of at least 45cm.

R 3.7 The arrangement of popholes must be such that they are evenly distributed along the line of access to ensure that all hens have ready access to the range.

R 3.8 Where verandas are attached to the side of the house, the popholes on both the house and the veranda must be of the size and ratio stated in R 3.2, R 3.3 and R 3.4.

The distribution of popholes may be staggered to maintain the thermal environment inside the house.

R 3.9 REVISED The maximum distance travelled by a hen to reach the nearest pophole in the main building, in order to access the range or a veranda (where present) must not exceed 20m.

R 3.10 No wire, electric or otherwise, is permitted under the popholes.

Stocking density

R 4.1 LEGAL For birds aged 21 weeks and older, stocking density must not exceed:

a) 2,000 hens per hectare over the life of the flock

b) 2,500 hens per hectare at any one time.

The maximum stocking density over the life of the flock (R 4.1 a)) should relate to the total amount of range available to the birds. Access to some of this area can be temporarily restricted in order to rest the land to help maintain the quality of the range, as long as R 4.1 b) is never exceeded. Some producers may require a larger overall range area (and hence a lower stocking density over the life of the flock) in order to manage and rotate range areas effectively. This should be carefully considered including factors such as local weather and land conditions.

R 4.2 For birds aged under 21 weeks the range area must provide at least 1m^2 per bird at all times.

LEGAL **Producers should note that European egg marketing regulations (EC 589/2008) apply once eggs are being marketed as free-range.**

Natural cover and enrichment

R 5.1 REVISED Natural cover must be provided:

a) in the form of existing or newly planted trees/shrubs/other canopy forming plants,

b) at an area equal to at least 5% of the total range area (this may include natural cover meeting the requirements of R 2.1),

c) at an area equal to at least 20% of the total range area by 1st May 2027.

Trees and/or shrubs in pots have been shown to be effective in encouraging range use and foraging behaviours in free-range laying hens. When placed to form shelterbelts from the popholes and onto the range, these have been shown to encourage birds to utilise areas further away from the house.

This strategy may be particularly effective on rented land or where mobile housing is utilised.

Research and experience shows that natural cover, particularly trees, can help encourage birds to use the range, which in turn can help in range quality management. Natural cover may include trees, shrubs and semi-permanent vegetation that can easily be established and removed, such as artichoke and kale. A well-managed range should include a variety of different types of natural cover and areas of interest for hens. Wide open spaces should be avoided, and moveable artificial shelters, enriched areas (see R 5.2) and newly planted areas should be positioned to help achieve an appropriate distribution of elements to encourage birds out to all areas of the range.

For any newly planted natural cover, the area that the vegetation is expected to cover when mature will be taken into account for calculating compliance. For example, when mature, trees may cover an average area of 3m x 3m.

Advice on providing effective natural range cover – including advice on meeting R 5.1 – is available on the resources pages of the AssureWel website:

www.assurewel.org/layinghens/advisorysupport.html

R 5.2 Additional facilities, or designated existing natural elements, must be provided for dustbathing/perching/foraging or a combination of these behaviours:

a) in at least 1 area per 2,000 birds

b) in a minimum of 2 areas.

Well managed and positioned brashings from trees, perches and designated covered sand areas are examples of facilities which can help to provide extra opportunity for hens to carry out dustbathing, perching and foraging (see R 5.2) and can help to encourage the whole range area to be used.

Biosecurity

R 6.1 NEW A written Housing Confinement Contingency Plan must be:

a) developed:

   i. with advice from your vet

   ii. to safeguard the welfare and behavioural needs of the birds during periods of confinement

b) included in the VHWP.

R 6.2 NEW The Housing Confinement Contingency Plan must be implemented for free-range birds during periods of confinement, for example when there is a high risk of spread of a contagious disease and the government requires birds to be housed.

R 6.3 NEW The Housing Confinement Contingency Plan must detail:

a) the additional biosecurity measures that will be implemented to protect the birds, where there's a high risk of spread of a contagious disease

b) the additional/novel enrichment items that will be provided to promote activity and interest, including, the:

   i. type of items

   ii. number of items

   iii. management of the items

c) how the litter will be managed to prevent heavily worn or poached areas forming

d) dustbathing provisions, including, the:

   i. type of provision

   ii. material/s used

   iii. management of the provisions

e) the actions to be taken if high levels of aggression and feather pecking occur (see section 4 of Appendix 5).

Consideration should be given to the potential disease risk posed by wild birds, for example, when choosing where to site a new unit.

Wintergardens/verandas which allow access to natural light and fresh air, can be beneficial particularly in the eventuality that access to the range is restricted on veterinary or legal advice.

Management

A high degree of caring and responsible management and stockmanship is vital to ensure good animal welfare. Managers and stock-keepers need to be thoroughly trained, skilled and competent in animal husbandry and welfare, and have a good working knowledge of their system and the livestock under their care.

M 1.1 All records and other documentation that the *RSPCA welfare standards for laying hens* require the producer to keep and maintain must be made available on request.

Managers

M 2.1 Managers must ensure that all stock-keepers:

a) have access to a copy of the current version of the *RSPCA welfare standards for laying hens*

b) are familiar with its content

c) understand and apply its content in their specific areas of responsibility.

M 2.2 Managers must ensure that pullets are raised and transported to the standards as set out in the *RSPCA welfare standards for pullets (laying hens)*.

M 2.2.1 Managers must ensure that all hens are killed in accordance with the slaughter/killing standards set out in the *RSPCA welfare standards for laying hens* (see Slaughter/killing section).

M 2.3 Managers must ensure that:

a) the names of all staff employed who are responsible for the welfare of the birds are identified

b) all stock-keepers have completed relevant and adequate training (including any in-house training) prior to being given responsibility for the welfare of birds and can satisfy the certification scheme assessor of their competence in practical circumstances.

M 2.4 Records relating to M 2.3 must be kept.

Where possible, stock-keeper training should be validated.

M 2.5 REVISED Managers must:

a) develop and implement contingency plans and preventative measures for the following emergency situations, to help ensure the welfare of the animals can be safeguarded:

   i. fire

   ii. flood

   iii. interruption of supplies to the farm, e.g. feed

   iv. notifiable disease outbreaks

   v. mass on-farm culling, e.g. due to an outbreak of avian influenza where all birds in a house/on the farm need to be culled (see information box below)

   vi. periods where the animals are required to remain on the farm for longer than planned, e.g. where there is a significant delay in animals being taken to the slaughter facility.

b) provide an emergency action board sited in a prominent position that is visible to all farm staff and emergency services, which must include:

   i. the procedures to be followed by those discovering an emergency

   ii. the location of water sources for use by the fire services

   iii. the what3words address and postcode for location of the unit.

NEW **A contingency plan is a course of action designed to help a business respond effectively to a significant future possible event/situation.**

For each event/situation, the plan includes the potential impacts on the animals and the actions that can be taken to address the issues identified. For example, in the event of a slaughter facility breakdown that results in the animals having to remain on farm for longer than planned, contingency plans will detail:

- **the potential issues caused by this event and the implications to the welfare of the animals**
- **the actions that can be taken to safeguard the animals' welfare.**

NEW **With regards to M 2.5 a) v), avian influenza has become more prevalent in recent years, resulting in an increased incidence of mass on-farm culling of poultry. Contingency plans are required to ensure that mass culling can be carried out without delay, effectively and humanely. Contingency plans should include:**

- **details of the on-farm mass culling method/s that can be used**
- **access routes for specialist vehicles and equipment to the poultry buildings**
- **any additional biosecurity measures required**
- **actions to be taken to ensure bird welfare is protected up to the point of death (e.g. feed and water provision, lighting schedule and ventilation and climate checks)**
- **the building preparations required for instances where whole house gas killing may be required**

The RSPCA strongly recommends that all poultry buildings are designed to deliver effective and humane whole house gas killing as a last resort, to prevent the need to use less humane culling methods.

The RSPCA will be developing future standards in this area to ensure on-farm mass culling is effective and humane.

M 2.6 Managers must develop and implement a biosecurity plan to minimise the risk of introducing disease onto a site.

M 2.7 **LEGAL** Managers must maintain records of production data, which include documentation on:

a) incoming and outgoing stock, including number of birds placed in each house

b) the number of ill, injured or dead birds identified after each inspection (causes of illness and injury and, where identified, the cause of death, must be stated)

c) the number culled (including reason for culling)

d) feed consumption

e) water consumption

f) maximum and minimum temperatures

g) ventilation (including settings and any necessary changes).

If possible, water meters should be fitted in each hen house.

M 2.8 Records relating to inspection (M 2.7 b) and c)) must be dated and signed, with the time of inspection noted.

Stock-keepers

M 3.1 Stock-keepers must:

a) be able to recognise signs of good health and welfare, including normal behaviour

b) be able to recognise a potential welfare problem in its earliest stages

c) be able to recognise the early stages of common diseases

d) know the appropriate actions for treatment of common diseases/ill health

e) be able to cull hens when necessary.

M 3.2 When an outbreak of abnormal behaviour occurs, it must be tackled immediately by appropriate changes in the system of management.

M 3.3 Stock-keepers must:

a) be aware of the welfare problems associated with poor litter management

b) understand the factors which affect litter condition, i.e. moisture, nitrogen content and greasy capped litter.

M 3.4 **LEGAL** Stock-keepers must:

a) carry out daily inspections of the litter

b) take remedial action on any individual capped areas greater than $1m^2$.

It is a legal requirement to maintain litter in a dry and friable state. Areas of capping can be managed with frequent raking or forking of the litter, replenishing litter and, in problem areas, using highly absorbent litter such as pelleted bedding material. Placement of enrichment items in problem areas may encourage birds to 'work' the litter. Straw bales may be particularly effective.

Good quality friable litter of the right type is thought to be the most important factor in preventing injurious pecking behaviour.

Inspection

M 4.1 All hens must be inspected at least 3 times a day in order to identify any birds which are sick, injured or behaving abnormally.

> **Inspections should be appropriately spaced throughout the day, i.e. morning, midday and afternoon/evening.**

M 4.1.1 Nest boxes must be inspected at least once daily.

M 4.2 The records of inspection (see M 4.1) must be dated, signed and the time of inspection noted.

M 4.3 Any welfare problems seen during an inspection by the producer must be dealt with appropriately and without delay.

> **Welfare problems of sufficient severity that they should have been noticed on previous inspections and dealt with, shall be taken by the certification scheme assessor as evidence of negligence of duties by the stock-keeper.**

M 4.4 Work routines and practices must be designed to ensure that hens do not become fearful and are not frightened in avoidable ways.

> **Frequent flock inspections and varying the routine, people, numbers of people and clothing, as well as increased inspections immediately after housing, has been shown to help to reduce fearfulness in hens, which in turn can help to minimise the risk of injurious feather pecking.**

M 4.5 All movement throughout the unit must be slow and deliberate, both to alleviate fear and reduce possible injury to birds.

M 4.6 Hens must at all times be handled in a careful, positive and compassionate manner.

Equipment

M 5.1 LEGAL Stock-keepers must inspect the equipment, including the automatic equipment, upon which laying hens depend at least once daily to check that there are no defects.

M 5.2 LEGAL Where a defect relating to M 5.1 is found (whether on inspection or at any other time):

a) the defect must be rectified immediately

b) if this is impracticable, such measures as are required to safeguard the hens from suffering unnecessary pain or distress as a result of the defect, must immediately be taken and maintained until the defect is rectified.

M 5.3 LEGAL Where the automatic equipment includes a ventilation system, the system must contain:

a) an alarm which will give adequate warning of the failure of that system to function properly (the alarm must operate even if the principal electricity supply to it has failed)

b) additional equipment or means of ventilation (whether automatic or not) which, in the event of such a failure of the ventilation system, will provide adequate ventilation so as to prevent the birds from suffering unnecessary distress as a result of the failure.

M 5.4 For existing or new equipment which is used in management, e.g. heaters, lighting, ventilation (flaps/fans), stock-keepers must be able to:

a) demonstrate an ability to operate the equipment competently

b) demonstrate the ability to carry out routine maintenance

c) recognise common signs of malfunction

d) demonstrate knowledge of action to be carried out in event of malfunction.

Protection from other animals

M 6.1 NEW A written Wild Animal Control Plan (WACP) must be:

a) in place, and

b) implemented on farm.

M 6.2 NEW Levels of potentially harmful wild animals (e.g. rodents and birds) must be managed humanely to avoid:

a) the risk of disease spread to livestock

b) damage to livestock buildings and the services on which livestock depend

c) contamination and spoilage of feed.

NEW In England and Wales, the following legislation applies to the management of wildlife:

- **Wildlife and Countryside Act 1981**
- **Animal Welfare Act 2006**
- **The Conservation of Habitats and Species Regulations 2010**
- **Protection of Badgers Act 1992**
- **Pests Act 1954**
- **The Spring Traps Approval (England) Order 2012**
- **The Spring Traps Approval (Wales) Order 2012**
- **The Small Ground Vermin Traps Order 1958**
- **Food and Environment Protection Act 1985**
- **The Control of Pesticides Regulations 1986**
- **Animals (Cruel Poisons) Act 1962**

Equivalent legislation applies in Scotland and Northern Ireland.

M 6.3 NEW The primary means of protecting livestock from wild animals, as documented in the WACP, must be by:

a) physical exclusion methods

b) the removal of elements in the vicinity that might encourage the presence of wild animals

c) maintaining units in a clean and tidy condition to minimise the risk of wild animals gaining access to the unit.

NEW **Physical exclusion measures are the most humane and effective methods of providing protection from wild animals.**

Measures should only be applied after the area has been checked and cleared of elements that could encourage the presence of wild animals, as applying some measures can interfere with rodent behaviour and encourage them to spread to other areas. Humane methods of protecting livestock from other animals include:

- **construction/maintenance of fencing appropriate for excluding the wild animals in question**
- **removal of shelter/cover (e.g. weeds, heaps of rubble, broken equipment etc.) in the area surrounding livestock buildings**
- **removal/protection of obvious food sources**
- **maintenance of drains**
- **maintenance/proofing of buildings against wild animals**
- **storing away from livestock.**

In free-range systems it is appreciated that elements, such as natural cover, are provided in order to encourage birds on to the range. Some of the methods listed above are intended to remove unnecessary and unintended harbourage sites, as opposed to elements specifically provided for other purposes.

NEW **Rodents are less likely to inhabit an area if there is no cover or food supply. Reduced food availability will also increase the likelihood of rodents consuming bait, where applied. When stores or livestock buildings are empty, the opportunity should be taken to clean spaces and introduce any necessary controls before restocking.**

M 6.4 NEW Where any method of lethal control is being considered, a site survey of the unit must be carried out before applying the control, i.e. bait or traps, identifying:

a) the type, level and extent of the problem species

b) any non-target animals likely to be present (including pets and children)

c) any maintenance and proofing issues.

M 6.5 NEW Where any lethal method of control is used, its use must have taken into account the results of the site survey (see M 6.4).

M 6.6 NEW The WACP must include provisions that specifically exclude the following methods of control:

a) snaring

b) gassing

c) vertebrate glue traps.

M 6.7 NEW Long-term baiting must not be used as a routine rodent control measure.

NEW In relation to M 6.7, site plans should therefore highlight potential high risk areas for wild animal activity (rather than permanent baiting locations).

NEW The RSPCA is opposed to the use of poisons that cause animal suffering and it is important not to rely solely on the use of rodenticide. The RSPCA is concerned about the welfare of all animals that have the capacity to suffer, and therefore all alternative forms of deterrent and humane control should be exhausted before resorting to the use of poisons for rodents.

NEW Any baiting programme should be considered carefully and justified in risk assessments for each location where used. Consideration should be given to using non-toxic baits in order to ascertain the presence of rodents, which may necessitate the use of rodenticide.

M 6.8 NEW When bait and/or traps are used, records of their use must be kept and:

a) state the location of the bait/traps

b) state what bait/traps were used

c) state the volume/number of bait/traps placed

d) state the name of the person who placed the bait/trap

e) be retained for at least two years.

M 6.9 NEW Bait and traps must:

a) be placed in suitable positions, and

b) be sufficiently protected to avoid harming non-target animals.

M 6.10 NEW Bait must be used according to the manufacturer's instruction for:

a) storage

b) usage, including areas of use and replenishment

c) disposal.

M 6.11 NEW Traps must be:

a) used according to the manufacturer's guidelines

b) maintained in good order

c) disposed of appropriately if no longer fit for purpose, e.g. have broken

d) stored safely and securely.

M 6.12 NEW Bait points must:

a) be monitored regularly, and

b) records or monitoring must be kept, including:

i. levels of any activity at each bait point

ii. any missing or disturbed bait

iii. the name of the person responsible for monitoring the bait points.

M 6.13 NEW Trap points must:

a) be monitored at least twice a day, ideally at dawn and dusk, and

b) records of monitoring must be kept, including:

i. levels of activity at each trap

ii. any missing or disturbed traps

iii. the name of the person responsible for monitoring traps.

M 6.14 NEW Any injured, sick or dying wild animals found – that have been targeted for control – must be humanely dispatched immediately to prevent further suffering.

Regular replenishment of bait will help to prevent sub-lethal doses, which can result in a build-up of resistance to the active ingredient.

M 6.15 NEW Where bait is used, dead animals must be disposed of safely, in line with the manufacturer's product label.

Safe disposal of wild animals that have died as a result of poisoning reduces the risk of secondary poisoning in non-target species, such as domestic and other wild animals (including birds), that may consume the carcasses.

M 6.16 NEW Once treatment is complete, all traps and traces of bait must be:

a) removed

b) disposed of/stored according to the manufacturer's instructions.

M 6.17 NEW Wild animal control methods must be covered by the farm COSHH assessment, where required.

M 6.18 NEW Managers must ensure that all stock-keepers:

a) have access to a copy of the Campaign for Responsible Rodenticide Use *UK Code of Best Practice: Best Practice and Guidance for Rodent Control and the Safe Use of Rodenticides*

b) are familiar with its content

c) understand and apply its content.

NEW **Managers are encouraged to complete a training course that is approved by the Campaign for Responsible Rodenticide Use. Such courses are available at: www.thinkwildlife.org/training-certification/#int_lnk**

Further information is available on the AHDB website ahdb.org.uk/knowledge-library/rodent-control-on-farms

M 6.19 **NEW** Domestic animals must not have access to the inside of the poultry building.

M 6.20 **NEW** Farm dogs and cats must not be permitted in the laying hen house.

M 6.21 **NEW** Farm dogs and cats that have access to the laying hen site must be:

a) in a healthy condition

b) regularly wormed (record to be kept in the medicine book or VHWP).

Pullets

PLEASE ALSO REFER TO THE *RSPCA WELFARE STANDARDS FOR PULLETS (LAYING HENS).*

It is strongly advised to liaise closely with the rearer and visit the pullets.

Producers are advised to look for single-breed, established flocks of calm, robust pullets and to ensure that the environment and types of facilities in the rearing and laying unit are as closely matched as possible. This can include floor, perch and litter type, lighting and feeding times, temperature at the time of placement and access outside if possible for free-range. Pullets should also be in good health, at target bodyweight and uniform in size.

All of these elements can help the birds adjust on arrival at the laying hen house and to minimise stress. This has been shown to help reduce the risk of injurious feather pecking occurring later in the birds' life.

M 7.1 **REVISED** All pullets must be:

a) reared according to the *RSPCA welfare standards for pullets (laying hens)*

b) sourced from a rearing unit that has been approved by the certification scheme assessing against these standards as being compliant with the *RSPCA welfare standards for pullets (laying hens)*.

M 7.2 **REVISED** All pullets destined for a multi-tier laying unit must be:

a) reared according to the multi-tier standards within the *RSPCA welfare standards for pullets (laying hens)*

b) sourced from a multi-tiered rearing unit that has been approved by the certification scheme assessing against these standards as being compliant with the *RSPCA welfare standards for pullets (laying hens)*.

It is strongly recommended that all pullets required for single tier laying houses are sourced from rearing houses that provide some slatted areas and facilities on different levels. Evidence and experience suggests that this can result in birds that more quickly settle in to their laying environment, more easily use and access facilities on a raised slatted area and roost on the slatted/perching areas at night. This in turn can help to minimise any stress.

M 7.3 All pullets sourced from a free-range rearing unit must be transferred to a free-range laying unit.

Broody hens

M 8.1 Broody hens, which are temporarily separated from the rest of the flock in a pen, may be kept on the slats but must be:

a) kept in conditions that comply with the rest of the RSPCA welfare standards

b) included in records stating date separated from flock and planned date for return.

Artificial intelligence

NEW The RSPCA is reviewing the role of artificial intelligence and the wide-ranging benefits it can bring to farm animal welfare, particularly in the areas of monitoring growth parameters, behaviour change and welfare assessment. It is strongly recommended that producers investigate the feasibility of such technology to further safeguard animal welfare. Where such technology is being considered, please contact the RSPCA Farm Animals Department.

Health

The environment in which livestock are housed needs to be conducive to good health.

Health and welfare monitoring

H 1.1 Managers must develop a written Veterinary Health and Welfare Plan (VHWP), which must:

a) be implemented, reviewed and updated in conjunction with the attending veterinary surgeon
   i. at least annually for multi flock sites
   ii. at least once per flock for single flock sites

b) be signed and dated by the attending veterinary surgeon

c) set targets for health aspects

d) record whether targets have been met each year and at each assessment made by the veterinary surgeon

e) include tolerance limits for flock performance

f) contain a salmonella control programme

g) include the feather loss monitoring record sheet from Appendix 5 (see H 1.11 and H 1.12).

H 1.2 Records relating to H 1.1 must be kept.

The VHWP (see H 1.1) should be aimed at reducing the risk of disease challenges and maximising the health and welfare of each flock. Accurate and up to date records, agreed tolerance levels for areas of health and production, and appropriate action plans included in the VHWP should enable any potential problems to be detected and managed at the earliest opportunity.

Reviewing records, at the end of each flock at least, allows the effectiveness of any actions taken to be assessed and the VHWP to be updated where relevant to help safeguard the health and welfare of the next flock.

RSPCA guidance notes which can be used as a basis for a Veterinary Health and Welfare Plan for laying hens and pullets, are available at www.rspca.org.uk/welfarestandards or from the RSPCA Farm Animals Department.

H 1.3 If any flock performance parameters fall below the tolerance limits identified in the VHWP (see H 1.1):

a) the veterinary surgeon must be informed

b) the VHWP must be revised to include a programme of action which will remedy the problem.

H 1.4 Managers must:

a) have access to copies of:

i. *A Guide to the National Control Programme for Salmonella in laying flocks* (Defra, 2009, PB 13204)

ii. *Code of Practice for the Control of Salmonella during the Production, Storage and Transport of Compound Feeds, Premixtures, Feed Materials and Feed Additive* (Defra, 2009, PB 13303)

b) be familiar with their content

c) implement the recommendations as appropriate.

H 1.5 There must be no recurring injuries of a similar nature seen on a number of birds attributable to physical features of their environment or handling procedures.

H 1.6 If recurring injuries are found, a programme of preventative action must be specified in the VHWP (see H 1.1).

Recurring injuries are those seen on a number of birds, with sufficient similarity to suggest they have a common cause. Injury is described as damage severe enough for the formation of granular scar tissue or defective bones or joints, and to an extent significantly greater than would be caused by accidental bumps or scratches.

H 1.7 Egg peritonitis, cannibalism and red mite must all be identified within the VHWP, including plans to avoid, control and minimise any problems.

H 1.8 Ailing hens, and any hen suffering from injury such as open wounds or fractures, or from prolapse of the vent must be:

a) segregated

b) treated without delay

c) if necessary, be humanely killed.

H 1.9 **LEGAL** Facilities must be available to temporarily segregate sick or injured birds and must:

a) be within the main house

b) provide birds with easily accessible food and water

c) allow birds to rest quietly without disturbance

d) provide dry, friable material easily accessible to all birds

e) be inspected at least 3 times daily and records made.

H 1.10 Hens must not be induced to moult.

H 1.11 The level of feather loss within the flock must be recorded:

a) on at least a monthly basis

b) using the method outlined in the information box below, and

c) on the feather loss monitoring record sheet provided (Appendix 5).

To assess feather loss:

Visually assess (without handling) and score 5 birds in 10 different areas of the house/range (a total of 50 birds).

Score separately for the:

- **back/vent (generally associated with injurious feather pecking)**
- **head/neck (can be aggression or equipment damage)**

Score 0 = no/minimal feather loss
No bare skin visible, no or slight wear, only single feathers missing

Score 1 = slight feather loss
Moderate wear, damaged feathers or 2 or more adjacent feathers missing, bare skin visible up to 5cm in dimension

Score 2 = moderate/severe feather loss
Bare skin visible at more than 5cm maximum dimension

See www.assurewel.org/layinghens.html for more information and for score sheets available to download.

H 1.12 REVISED In relation to H 1.11 (monthly feather loss monitoring requirement), where there is early indication of feather pecking and/or feather loss and by no later than when the total percentage feather loss exceeds the threshold values given in Section 2 of Appendix 5 :

a) the Feather Cover Action Plan must be implemented (see H 1.15, H 1.15.1)

b) action(s) must be taken immediately to:

   i. rectify the issue(s) (see information box below, and Section 4 of Appendix 5 for further information), and,

   ii. prevent the issue(s) recurring

c) details of the action(s) must be recorded on the feather loss monitoring record sheet (see Appendix 5).

Measures that should be considered if feather loss occurs:

- **investigate potential causes and risk factors**
- **implement appropriate changes in management and/or environment depending on the suspected cause, e.g. feather loss due to injurious feather pecking is believed to be redirected foraging behaviour, which can be triggered by stress, so increase foraging opportunities immediately (see standard E 12.1 for more information)**
- **refer to the *Feather Cover Advice Guide* leaflet, available from the RSPCA**
- **be familiar with the contents of FeatherWel's *Improving Feather Cover – a guide to reducing the risk of injurious pecking occurring in non-cage laying hens* and implement recommendations as appropriate**
- **visit www.featherwel.org and www.assurewel.org/layinghens.html for further advice**
- **talk to your vet.**

Such action may help prevent the problem from getting worse and hopefully lead to improved feather cover.

Regular weighing throughout the hens' lives helps in overall flock health and welfare assessment. It is highly recommended to weigh a number of hens at least weekly until 30 weeks of age and then at least every 4 weeks to assess progress and evenness. As a guide, 25 birds from different areas should be weighed in each colony of 4,000 hens.

H 1.12.1 REVISED With respect to H 1.12 b), where action(s) implemented in the previous month has not alleviated the feather loss problem, alternative and/or additional action(s) must be taken.

H 1.13 Levels of mortality above 0.2% within the first two weeks at the laying unit must be:

a) the subject of investigation, and

b) the results of which must be recorded.

H 1.14 In relation to H 1.13, where records have identified higher levels of mortality, prompt action must be taken to prevent further deaths, injury or suffering occurring.

The RSPCA is very concerned about the incidence of bone fractures in laying hens, which research has shown can be high in all systems. Such damage can be the result of elements including osteoporosis, design and management of the housing system and handling of the birds, including during depopulation. Keel bones are particularly susceptible to damage.

The Farm Animal Welfare Committee's (FAWC) *Opinion on Osteoporosis and Bone Fractures in Laying Hens* (2010) identified that improvements to bone strength should be made through nutrition, breeding and enabling birds to exercise safely. FAWC also stressed the need for careful handling at depopulation and consideration of alternative methods of on-farm killing.

All producers should be aware of these concerns and consider how to reduce the risk of bone damage and any associated suffering. The RSPCA will respond further to this issue within the standards as soon as new advice and evidence is available.

H 1.15 NEW A written Feather Cover Action Plan must be:

a) developed for each flock:

   i. before placement

   ii. with advice from your vet, and

b) included within the VHWP (see Standard H 1.1).

H 1.15.1 NEW The Feather Cover Action Plan must detail:

a) the additional actions that could be implemented if early signs of feather pecking and/or feather loss are identified (see Appendix 5, Section 4 for help with this)

b) the additional/novel enrichment items that will be provided to promote activity and interest, including the:

   i. type of items,

   ii. number of items

   iii. management of the items

c) how the litter will be managed to prevent heavily worn or poached areas forming

d) how the birds can be further encouraged onto the range

e) how to further promote full range use

f) a review of the potential causes or stressors that may have resulted in feather pecking and/or feather loss

g) a review of the previous flock's feather cover to end of lay

h) successful management strategies from previous flocks that can be applied to the current flock.

NEW The Feather Cover Action Plan (see H 1.15 and H 1.15.1) is required to detail management strategies that can be applied to each flock if early signs of feather pecking and/or feather loss are identified. Implementing the plan at an early stage will help to address the behaviour before severe feather pecking/feather loss is seen.

H 1.16 NEW A written protocol that minimises the welfare issues associated with young laying hens laying large eggs must be:

a) developed before the placement of each flock

b) developed with advice from your vet

c) included within the VHWP for each flock (see standard H 1.1)

d) implemented at the time of placement of the pullets.

Producing larger eggs has the potential to cause stress and pain to hens. It can lead to feather loss, prolapse of the vent or oviduct and cannibalism.

Producers should refer to standard breed performance targets and expert breed, nutrition and veterinary advice. In general, lighting patterns and energy content of the feed can affect egg size. It is advisable to achieve an even body weight of birds across the flock to help ensure the energy content is appropriate for all individual birds.

H 1.17 NEW With reference to H 1.16, the protocol must include:

a) the monitoring of bird weight to ensure birds are at the appropriate weight when they come into lay

b) the monitoring of flock evenness to ensure all birds are at a similar weight when they come into lay

c) a lighting plan to ensure the appropriate timing of sexual maturity

d) the steps taken to ensure a smooth transition from the lighting regime in rear to the lighting regime provided in the laying shed

e) a record of the lighting regime at rear.

Beak trimming

H 2.1 Where chicks are beak trimmed, this procedure must only be carried out on chicks no older than 24 hours using infrared equipment (see *RSPCA welfare standards for hatcheries*), unless in accordance with H 2.4.

NEW **The RSPCA is developing these standards in several areas, with the aim of prohibiting the beak trimming of birds. For example, new standards will require birds to be provided with natural light, as well as more space (via the installation of verandas).**

The RSPCA plans to phase out beak trimming 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 beak trimming will be prohibited.

Producers that are managing good feather cover in consecutive flocks are strongly encouraged to trial intact beak birds.

The RSPCA strongly encourages producers to focus resources into achieving good feather cover to facilitate a smooth transition to the requirement to have fully intact beak flocks as soon as possible.

H 2.2 Any concerns about the trimmed beaks of hens (for example, the amount of beak trimmed) where it has been carried out at the hatchery, must be discussed with the relevant hatchery and evidence of this recorded.

H 2.3 Managers must:

a) have access to a copy of:
   i. *A guide to the practical management of feather pecking and cannibalism in free-range laying hens* (Defra, PB 10596, 2005)
   ii. *Improving Feather Cover: A guide to reducing the risk of injurious pecking occurring in non-cage laying hens* (FeatherWel, University of Bristol, 2014)

b) be familiar with their content

c) implement the recommendations as appropriate.

H 2.4 If, in emergency circumstances as permitted by law, and as a last resort (having tried alternative approaches such as changes in management, environment etc.) and only on veterinary advice, beak trimming of birds older than 24 hours is deemed necessary for welfare reasons, then the producer must:

a) obtain a signed letter from the vet stating the reasons for advising that beak trimming be undertaken, and details of other approaches tried prior to beak trimming

b) inform the RSPCA Farm Animals Department in writing with a copy of the letter referred to in a).

H 2.5 The beak trimming procedure, in relation to H 2.4, must include the following:

a) appropriate equipment installed in accordance with the manufacturer's instructions

b) trained and competent operators

c) removal of only the minimum amount of beak and never more than one third

d) initial checks of the accuracy and uniformity of beak trimming based on observations of at least 100 birds per operator

e) on-going hourly checks of bird welfare and beak condition throughout the procedure

f) careful examination and, if necessary, humane culling of any bird found to have been beak trimmed incorrectly

g) cauterisation of the beak to minimise the risk of haemorrhage when using hot-blade equipment

h) records of the names of all personnel carrying out beak trimming

i) signature of the nominated person in charge of the procedure.

H 2.6 Producers and those responsible for carrying out the beak trimming procedure in relation to H 2.4 must:

a) have access to a copy of the current *Defra code of practice for the welfare of laying hens and pullets*

b) be familiar with its content on beak trimming

c) implement the recommendations as appropriate.

H 2.7 For at least one month following beak trimming, in relation to H 2.4, the farm manager must carry out and record specific inspections to check the welfare of the birds and beak condition.

H 2.8 Artificial devices (e.g. blinkers attached to the beak or nostrils, and contact lenses) must not be used.

Medication

H 3.1 Written procedures must be in place, and must be followed at all times, for the safe disposal of pharmaceutical waste, needles and other sharps.

H 3.2 **LEGAL** Procedures relating to H 3.1 must be in strict accordance with the relevant waste disposal regulations.

H 3.3 Medicines must be:

a) used only under the direction of a veterinary surgeon

b) clearly labelled and stored in accordance with the label instructions

c) kept in a secure, lockable store which is:

   i. safe from animals, children and birds

   ii. separate from food producing areas or food source areas

d) legal for use in the UK

e) administered in accordance with UK legislation.

H 3.4 A nominated person must:

a) be responsible for the management of the medicine store

b) keep appropriate records for stock control purposes.

It is recommended that producers obtain, read and where appropriate, apply the advice contained within the latest version of:

a) ***Guidelines on Responsible Use of Antimicrobials in Poultry Production*****, issued by the Responsible Use of Medicines in Agriculture (RUMA) Alliance (RUMA, Acorn House, 25 Mardley Hill, Welwyn, Hertfordshire, AL6 0TT; www.ruma.org.uk)**

b) ***Code of practice on the responsible use of animal medicines on the farm*****, issued by the Veterinary Medicine Directorate**

c) ***Veterinary Medicines: safe use by farmers and other handlers*****, issued by the Health and Safety Executive.**

H 3.5 All personnel involved in the administration of animal medicines must be competent to do so.

H 3.6 Records must be kept of all administered medications.

H 3.7 NEW Antibiotics must only be used when necessary, and always used responsibly.

NEW **Prevention is better than cure, and it is the implementation of prevention strategies alongside the adoption of farming practices that prioritise and promote animal health and welfare that are key in reducing antibiotic use.**

For more information on this issue, please see our information sheet, *Antimicrobial resistance and farm animal welfare*, available on our website (www.rspca.org.uk).

H 3.8 NEW The prophylactic use of antibiotics is not permitted.

NEW **Prophylactic treatment is intended to prevent sickness or disease developing in a group of healthy animals where a veterinary surgeon has identified that there could be a high risk of bacterial infection. We believe that, in poultry, there should be no need for the prophylactic use of antibiotics when following these standards. However, we acknowledge there may be very exceptional circumstances, e.g. in the case of an emergency, such as a transport accident, where a veterinary surgeon may feel it is in the best interests of the affected animal's welfare for antibiotics to be given preventatively. We would expect these occasions to be extremely rare and limited to only one flock.**

Metaphylactic treatment is intended to control disease spreading in groups of animals where some are already showing clinical signs of disease and is not covered by standard H 3.8.

H 3.9 NEW The use of antibiotics on-farm must be reviewed annually and this review must form part of the VHWP (see H 1.1).

H 3.9.1 NEW In light of the findings of the antibiotic use review (see standard H 3.9) an action plan must be drawn up aimed at reducing the use of antibiotics on the farm through improvements in animal husbandry.

H 3.9.2 NEW When reviewing the use of antibiotics on-farm, the following must be included in the action plan (see Standard H 3.9.1):

a) the different classes of antibiotic drug used

b) which group(s)* of animals were treated, and for which condition(s)

c) the number of animals treated per occasion

d) the total amount of each individual drug within a class that was used in % bird days (actual bird days treated/bird days at risk) X 100

e) a specific section covering all the above for 'Critically Important Antibiotics' (CIAs).

*A group of animals refers to animals of a similar age and/or stage of production.

NEW The review is intended to highlight which groups of animals are suffering from particular diseases and therefore aid the development and implementation of targeted prevention strategies.

Biosecurity

An effective biosecurity policy should aim to prevent the introduction of disease and parasites on to the farm and subsequently to prevent the spread within the farm. Disease agents can be introduced by birds, people, equipment and vehicles.

Disease and other health challenges can cause significant stress to birds, which in turn can also lead to an increased risk of injurious feather pecking. To help address this, best practice in biosecurity procedures is essential.

H 4.1 A record of all visitors to the farm must be maintained.

H 4.2 The record (see H 4.1) must include the following details of the visitor:

a) name

b) organisation

c) date and time of arrival

d) recent visits to poultry sites and farms

e) certification that they are not suffering with any enteric illness.

H 4.3 Protective clothing and footwear/overshoes must be:

a) worn by all visitors

b) either washed, house/site dedicated or used once if disposable.

H 4.4 On each occasion on entering/leaving a poultry house, all farm personnel and visitors must dip footwear.

H 4.5 Foot dip must:

a) consist of Defra approved disinfectants

b) use disinfectants in accordance with the manufacturer's instructions

c) be replaced with fresh solution regularly.

Producers should contact Defra for information on Defra approved disinfectants. Contact details can be found on the Defra website: www.gov.uk/government/organisations/department-for-environment-food-rural-affairs

H 4.6 The house must operate a period free of all livestock between flock cycles.

Casualty killing/slaughter

H 5.1 LEGAL Each farm must have provisions for the humane killing/slaughter – without delay – of casualty hens.

H 5.1.1 LEGAL Casualty killing/slaughter must be carried out by either:

a) a named, trained, competent member of staff, or

b) a licensed slaughterman, or

c) a veterinary surgeon.

It is not illegal to slaughter/kill a bird to prevent further severe suffering if a method of humane slaughter/killing is available on the premises and there is someone competent to undertake the procedure.

The Humane Slaughter Association (HSA) has produced a booklet entitled *Practical Slaughter of Poultry: A Guide for the Small Producer*. Producers should obtain a copy of this booklet, from HSA, The Old School, Brewhouse Hill, Wheathampstead, Herts AL4 8AN.

H 5.2 Only those methods of on-farm slaughter/killing recommended by the HSA are permitted:

a) hand-held electrical stunning, immediately followed by neck cutting

b) manual neck dislocation

c) captive-bolt.

LEGAL **In accordance with Council Regulation (EC) No 1099/2009, no person shall kill by manual cervical dislocation or percussive blow to the head more than 70 animals per day.**

H 5.3 Equipment that crushes the neck, including killing pliers, must not be used.

Equipment that crushes the neck is neither quick nor humane.

H 5.4 LEGAL If there is any doubt as to how to proceed, the veterinary surgeon must be called at an early stage to advise whether treatment is possible or whether humane slaughter is required to prevent suffering.

H 5.5 LEGAL If a bird is in severe pain that is uncontrollable, then the bird must be promptly, humanely slaughtered/killed.

H 5.6 LEGAL All carcasses must be disposed of strictly according to current legislation.

H 5.7 A record must be kept of how and where all such carcasses are disposed of.

Welfare outcome assessment (WOA)

Welfare standards for farm animals are primarily based on 'inputs', i.e. they describe what must be provided to the animals in terms of certain resources, such as housing, space, feed, veterinary care and management practices. However, it is important to know what effect these inputs are having on the welfare of the animals and therefore look at the 'outcomes' of these inputs, i.e. the impact of these inputs on the health, physical condition and behaviour of the animals themselves. This practice is known as 'Welfare Outcome Assessment'.

RSPCA Welfare Outcome Assessment[1] has been developed for laying hens and offers a practical and scientifically informed method to provide a more objective, animal-focused picture of the level of welfare being achieved on-farm for certain key welfare measures. The welfare measures selected for assessment are listed in Appendix 6.

[1]RSPCA Welfare Outcome Assessments are informed by AssureWel, a collaborative project led by the RSPCA, Soil Association and University of Bristol with a primary aim of developing farm animal welfare outcome assessments for use within farm assurance schemes.

WA 1.1 It must be ensured that a Welfare Outcome Assessment is conducted:

a) according to the protocol in Appendix 6

b) using the assessment form in Appendix 6 or the equivalent current Welfare Outcome Assessment form used by the farm assurance scheme assessing against these standards

c) on a regular basis or, for members of the farm assurance scheme that is assessing against these standards, during each scheme assessment visit

d) i) by a suitably competent person that is independent from the direct management of the farm

ii) in the case of assurance scheme members, by the relevant scheme personnel.

With reference to WA 1.1 c), Welfare Outcome Assessments should be carried out approximately every 12 months.

With reference to WA 1.1 d), a suitable person to conduct the assessment would be a qualified vet, an independent consultant with an adequate knowledge of laying hen welfare and production; a Farm Assurance Scheme Assessor; the farm's company fieldsman, or a person with an equivalent role.

WA 1.2 Copies of the completed Welfare Outcome Assessment forms (see WA 1.1 b)) must be kept:

a) on the farm where carried out

b) for a minimum of five years.

WA 1.3 With regard to WA 1.2, the document must include the following information:

a) the date of the audit

b) the house/houses assessed

c) the name, job title and organisation of the person who carried out the assessment

d) the age of the flock at the time of the assessment

e) any responsive action to be taken

f) the signature of the person undertaking the assessment.

WA 1.4 Any health/welfare issue identified as an area of concern by the Welfare Outcome Assessment (WA 1.1) must be included within the VHWP (see Standard H 1.1).

The Welfare Outcome Assessment will not always provide a definitive farm level prevalence of welfare for the measures assessed. The assessment has been designed to identify areas of welfare concern that are likely to be more wide-spread on the farm and therefore warrant further investigation and careful monitoring. Welfare Outcome Assessments can also indicate areas where welfare is being safeguarded.

Transport

The depopulation process and transport systems need to be designed and managed to ensure livestock are not caused unnecessary distress or discomfort. The transport and handling of livestock needs to be kept to an absolute minimum. Personnel involved in depopulation and transport need to be thoroughly trained and competent to carry out the tasks required of them.

Depopulation

LEGAL **It is a legal requirement for all free-range birds to have access to the range on a daily basis, including during the day prior to depopulation, i.e. birds being depopulated in the evening are required to have access to the range during the day.**

For clarification, throughout this section the responsibilities of key staff involved in depopulation are defined as follows:

Producer/farm manager (or named supervisor) – ultimately responsible for the welfare of the birds, until they are loaded into the transport modules/crates.

Catching team leader – responsible for supervising the catching process, making sure all catching team members are aware of their duties and are competent to carry them out.

Senior catching team members – experienced senior members of the catching team, appointed by the catching team leader, to help supervise the other members of the catching team.

Haulier (driver) – responsible for making sure all birds are fit to travel and for the welfare of birds from the time they are placed into the transport modules/crates until they are unloaded from the modules/crates at the slaughter facility.

T 1.1 The producer/farm manager must ensure that only catching teams who have been approved by the certification scheme that is assessing against these standards are used for catching laying hens at depopulation.

The producer/farm manager may have their own team approved by the certification scheme that is assessing against these standards if organising catching themselves.

T 1.2 A depopulation action plan (DAP) must:

a) be drawn up by the producer/farm manager for each house prior to depopulation

b) be reviewed and signed after each depopulation by both the producer/farm manager or named supervisor, and the catching team leader.

T 1.3 The DAP (see T 1.2) must include:

a) building design

b) catching plan

c) transport arrangements

d) post-depopulation records.

(For more detailed information, see Appendix 2 for pro forma.)

Producers/farm managers should consider the construction of buildings and bear in mind the access to and from the area where birds are placed and removed. Particular attention should be paid to the width of doors and access to mobile units.

All new buildings should have access for transport crates so that hens can be loaded inside the building, or a concrete area with shelter outside the unit should be provided. It is appreciated that this may be more difficult in some smaller and/or mobile units, but every effort should be made to ensure the welfare of the hens at the time of loading into transport crates.

T 1.4 If the catching team has concerns regarding the depopulation process and the welfare of the birds, the catching team leader must raise these concerns with the producer/farm manager.

T 1.5 If the producer/farm manager, or named supervisor, has concerns regarding the welfare of hens during the catching process, he/she must raise these concerns with the catching team leader.

T 1.6 The DAP (see T 1.2) must:

a) include any bird welfare issues raised by the catching team (see T 1.4)

b) include any bird welfare issues raised by the producer/farm manager (see T 1.5)

c) include any action to be taken to address the issues raised in a) and b) prior to the next depopulation.

T 1.7 The producer/farm manager must:

a) provide full written instructions of the catching plan to the catching team leader and senior catching team members (see T 1.8 d))

b) take responsibility to ensure the welfare of the birds throughout the catching process

c) be recorded by name in the DAP (see T 1.2).

T 1.8 The catching team leader must:

a) be recorded by name in the DAP (see T 1.2)

b) ensure that all catching staff are aware of their duties

c) take responsibility for supervising, monitoring and maintaining RSPCA welfare standards throughout the depopulation of the house and loading of hens into the transport modules/crates

d) appoint a minimum of one senior member of the catching team for teams of up to eight members, and two senior members for teams of nine or more members

e) record the name(s) of the senior catching team members in the DAP.

T 1.9 The catching team leader and senior members of the catching team must:

a) have access to a copy of the current version of the *RSPCA welfare standards for laying hens*

b) be familiar with the contents of the section on depopulation

c) understand and apply the contents of the section on depopulation.

T 1.10 All personnel involved in the catching and transportation of hens must be:

a) properly trained

b) competent to carry out their duties.

Where possible training relating to T 1.10 should be validated.

T 1.11 The catching team leader must ensure that they:

a) has viewed the Humane Slaughter Association DVD *Poultry Welfare – Taking Responsibility*

b) is familiar with its content in order to convey the relevant content to the catching team members

c) conveys relevant areas of its content to the other catching team members.

Where possible all members of the catching team should view the Humane Slaughter Association DVD *Poultry Welfare – Taking Responsibility*.

T 1.12 Less experienced members of the catching team must be closely supervised by a senior member of the catching team or the catching team leader.

T 1.13 Hens must have access to water up to the time that the catching team begins to catch the first birds.

T 1.14 LEGAL Producers/farm managers must liaise with the haulier and slaughter facility to ensure that the timing of the depopulation process does not deprive any bird from food for more than 12 hours (including the period up to the time of slaughter).

T 1.15 Prior to depopulation, the catching team leader and senior members must have a detailed procedure, that they will employ to deal with loose birds in the house and/or outside in order to ensure the welfare of such birds.

T 1.16 Catching must take place in low or blue lighting when the hens are roosting naturally to minimise fear reactions.

If blue lighting is unavailable, a dimmer switch can be used to create low lighting, to avoid potentially causing unnecessary stress to the birds by turning lights on and off.

T 1.17 Catching teams must never put speed of operation before hen welfare.

T 1.18 Adequate draught-free ventilation at hen height must be provided for uncaught hens up to the time of loading.

T 1.19 The catching and loading routine must involve at least two people, one catching the birds and the other opening and closing the drawers of the transport containers.

T 1.20 Hens must be caught individually by grasping both legs, just above the feet.

NEW The RSPCA is considering alternative handling methods for end of lay hens at depopulation.

Poultry do not have a diaphragm and carrying the birds by the legs can result in respiratory distress (birds having difficulty breathing).

The size and design of some poultry housing systems can result in birds being carried by the legs for extended periods of time. When designing new systems, the practical aspects of depopulation should be considered.

An upright catching and carrying method has been used successfully under commercial conditions in some European countries.

We strongly encourage birds to be carried in an upright position and we are currently examining the feasibility of achieving this.

T 1.21 Hens must not be caught or carried by a single leg.

T 1.22 No more than 3 birds must be carried in one hand.

Matching the number of birds carried by each catcher at any one time to multiples of the drawer stocking density can help in the efficient and smooth loading of the birds.

T 1.23 If carried in groups, care must be taken to ensure birds can be held comfortably without distress or injury.

T 1.24 Carrying distances must be kept to the minimum possible.

T 1.25 Where crowding occurs, the house lights must be raised, the birds spread out calmly and quietly, then allowed to settle before catching is resumed.

Penning the birds into smaller groups for catching may help to minimise smothering, which can sometimes be caused by crowding.

T 1.26 **REVISED** When modules are used for transport:

a) the top drawer must be loaded first unless the module manufacturer's instructions state otherwise and bird welfare is not compromised

b) each drawer must be closed carefully to ensure that the birds' heads, wings and legs are not trapped in any way.

T 1.27 Birds which are visibly unfit (including those that are lame, fatigued, injured or ill) before loading must:

a) not be transported

b) be humanely killed immediately, as soon as observed.

T 1.28 The catching team leader or a senior member of the catching team must be nominated to be responsible for humane killing of birds that are deemed unfit for travel (casualty birds).

T 1.29 The nominated person (see T 1.28) must be:

a) trained and competent in carrying out humane killing

b) named in the DAP (see T 1.2).

T 1.30 Producers/farm managers must have in place, and be able to demonstrate, procedures to protect birds from wetting and chilling during the depopulation process.

The use of curtains, shelter facilities during catching and loading and minimising the carrying distance from the building to the vehicle can help to protect birds from wetting and chilling.

Transport

LEGAL Legislation requires all drivers to hold a certificate of competence demonstrating that they have undertaken appropriate training and can implement the skills and knowledge attained in relation to ensuring good welfare during the transport of livestock.

T 2.1 **LEGAL** Personnel in charge of hen transporters must:

a) have completed an approved training course

b) be able to demonstrate their competence in handling hens when loading and unloading them and while in transit.

T 2.1.1 All birds must be transported by a haulier approved by the certification scheme that is assessing against these standards.

T 2.1.2 The driver must:

a) have access to a copy of the current version of the *RSPCA welfare standards for laying hens*

b) be familiar with the contents of the section related to transport

c) understand and apply the contents of the section related to transport where applicable.

T 2.1.3 The haulier must ensure that:

a) all birds are fit to travel

b) the welfare of birds is safeguarded from the time they are placed into the transport modules/crates until they are unloaded from the modules/crates at the slaughter facility.

LEGAL The driver of the vehicle has a legal responsibility to inspect the birds at the time of loading and should inspect the birds prior to catching and departing.

T 2.2 The timing of arrival of the catching team must be planned to minimise any unforeseen interruptions to the depopulation process.

T 2.2.1 All transport vehicles must be parked as near as possible to the house being depopulated.

T 2.2.2 Transport containers for hens must be:

a) clean

b) well maintained

c) free from sharp edges or protrusions which could cause injury or distress to the birds.

T 2.3 All transporters must have a livestock capacity document on board at all times.

The livestock capacity document will give data on the size of the transporter and the calculated carrying capacity for different livestock species under different climatic conditions.

T 2.3.1 Birds which are wet prior to loading must not be loaded close to the inlets on the vehicle.

The RSPCA endorses the concerns and recommendations highlighted in the European Food Safety Authority (EFSA) report (2004) on the Welfare of Animals During Transport. In particular, this report highlights that when wetting occurs under cold conditions (i.e. 8°C or less), this will induce substantial degrees of hypothermia.

Wherever possible, end-of-lay hens should be carried on vehicles where the ventilation system is capable of maintaining the temperature within the transport container below 26°C accompanied by a relative humidity (RH) of less than 75%. The ventilation system design and vehicle curtaining should reflect these requirements. Particular care and consideration should be given to poorly feathered birds who are more susceptible to chilling.

T 2.4 All hauliers must have a written standard operating and emergency procedure to implement during transportation (see Appendix 1).

T 2.5 An on-farm record must be maintained of all incidents relating to T 2.4 that occur during transit.

T 2.6 Where causes of mortality or injury have been identified, prompt action must be taken to prevent further deaths, injury and suffering occurring.

T 2.7 The time between the loading of the last hen to the time of arrival at the final destination must be less than 8 hours.

T 2.8 The following applies to unloading of pullets at the laying hen site:

a) all pullets must be unloaded immediately upon arrival both from the vehicle and from the crates/modules

b) where it is not possible to unload pullets immediately, a written plan must be available which details:

   i. the situations when this may occur

   ii. the procedures which are designed to ensure the welfare of the pullets whilst they are on the vehicle or in the crates/modules within the house.

T 2.9 Noise levels, from all sources, must be minimised during loading, transport and unloading.

T 2.10 In periods of hot weather (in excess of 21°C), hens must be transported at night or in the coolest part of the day or the stocking density must be reduced by 20%.

T 2.11 Hauliers must have in place, and be able to demonstrate, procedures to protect birds from extremes of weather (including wetting and chilling) at all times whilst hens are in modules, both prior to loading on to the vehicle and during transport.

Parking the vehicle in an appropriate position can help to minimise any potential distress to the birds that could be caused by prevailing weather conditions.

T 2.12 Every effort must be made to ensure:

a) journeys are completed without unnecessary delays

b) that drivers are aware of any potential traffic problems and plan their journey accordingly.

T 2.13 The producer/farm manager supervising the catching and loading of birds must liaise closely with the slaughter facility to minimise the time birds spend waiting on the vehicle in the event of an unexpected delay during depopulation.

T 2.13.1 The haulier must liaise directly with the slaughter facility to minimise the time birds spend waiting on the vehicle in the event of an unexpected delay during transport.

T 2.14 If it is necessary to keep birds on board a stationary vehicle, the driver must take action to avoid heat/cold stress to the birds.

In hot weather (in excess of 21°C) one of the most effective ways of achieving adequate ventilation is to keep the vehicle moving.

T 2.15 There must be adequate ventilation for all birds when in transport crates and on the vehicle.

Slaughter/killing

All slaughter/killing systems need to be designed and managed to ensure livestock are not caused unnecessary distress or discomfort. The pre-slaughter handling of livestock needs to be kept to an absolute minimum. Personnel involved in the slaughter need to be thoroughly trained and competent to carry out the tasks required of them.

Where possible, gas killing systems should be used to kill the birds.

The RSPCA recognises the shortcomings of the electrical waterbath stunning process in terms of its actual and potential detrimental impacts on bird welfare. For example, it is necessary to handle, invert and hang live birds and use a constant voltage to stun the birds. The Society is considering the phasing-out of such systems and would therefore strongly encourage producers to adopt controlled atmosphere killing systems or seek modifications to their electrical waterbath systems, even in cases where shackling is currently permitted (see Standard S 4.1), to address the key areas of concern affecting bird welfare.

S 1.1 All hens must be:

a) slaughtered/killed according to the *RSPCA welfare standards for laying hens*

b) sent to a slaughter plant that has been approved by the certification scheme this is assessing against these standards as being compliant with relevant sections of the *RSPCA welfare standards for laying hens*.

S 1.2 Hens must be slaughtered/killed as close as possible to the point of production.

S 1.3 Any novel system of slaughter/killing must be referred to the RSPCA Farm Animals Department for review and decision before it can be used by prospective/current members of the farm assurance scheme assessing against these standards.

Management and training

S 2.1 REVISED Contingency plans and suitable back up procedures and systems must be in place to:

a) deal with occasions when unavoidable delays may occur, such as a mechanical breakdown, and it is not possible to process the birds as planned

b) ensure the continued killing of animals in the event of an emergency that threatens the ongoing use of the main system, such as a disruption to the supply of gas in the case of gas killing systems.

S 2.2 Managers must develop and implement an animal welfare policy which must include:

a) written procedures with regard to maintaining animal welfare in the slaughter facility

b) the responsibilities and duties of staff

c) emergency procedures.

S 2.3 LEGAL The animal welfare policy (see S 2.2) must be regularly reviewed and updated.

S 2.4 **LEGAL** Managers must appoint at least one trained Poultry Welfare Officer (PWO), who is responsible for the implementation of the animal welfare policy.

Where possible, the PWO should have attended a recognised, validated training course, for example Bristol University Poultry Welfare Officer Training programme.

S 2.5 **LEGAL** Managers, in conjunction with the PWO, must:

a) develop and implement a training programme for all staff handling and slaughtering birds

b) ensure that staff are properly trained to carry out their duties and be competent to perform them.

Where possible, training relating to S 2.4 should be validated.

S 2.6 **LEGAL** The PWO must make frequent checks throughout the day to ensure that birds are effectively stunned/killed and insensible throughout the slaughter operation.

S 2.7 Where birds are not being effectively stunned, the PWO must take immediate remedial action.

S 2.8 **REVISED** Managers, in conjunction with the PWO must:

a) develop and implement a training programme for all staff involved in the handling and slaughtering/killing of laying hens, and

b) ensure that these staff are trained and competent to carry out their duties.

c) only mark staff training as completed once a self-declaration of competence has been signed by both the trainee and management staff.

REVISED For staff undertaking the following operations, a certificate of competence in accordance with Council Regulation (EC) No 1099/2009[1] can be used to demonstrate compliance with standard S 2.8 b):

a) the handling and care of animals before they are restrained;

b) the restraint of animals for the purpose of stunning or killing;

c) the stunning of animals;

d) the assessment of effective stunning;

e) the shackling of live animals;

f) the bleeding of live animals.

[1]Council Regulation (EC) No 1099/2009 on the protection of animals at the time of killing, Article 7, Paragraph 2.

S 2.9 NEW When developing the staff training programme (S 2.7 a)) the following areas must be included, as appropriate:

a) laying hen welfare

b) laying hen behaviour

c) handling and movement of laying hens

d) lairage, including lairage conditions and care of laying hens during lairage

e) restraint of laying hens

f) slaughter/killing method/s, including emergency back-up methods

g) assessment of an effective stun/kill

h) bleeding.

NEW In relation to S 2.9, the Humane Slaughter Association (HSA) '*Poultry Welfare – Taking Responsibility*' training package can be used to help inform the content of the training programme.

Closed Circuit Television (CCTV)

The use of Closed Circuit Television (CCTV) in areas where live animals are present can assist those responsible for monitoring and enforcing animal welfare within the slaughter facility in ensuring that standards are maintained. It is strongly recommended that CCTV footage is also used for in-house training programmes and to provide an additional level of security at the slaughter facility.

S(TV) 1.1 LEGAL A functional CCTV system must be installed and operational to monitor animals undergoing the following processes at the slaughter facility (as applicable):

a) unloading from vehicles into the lairage

b) shackling, including the shackling of birds following gas killing

c) stunning, including exiting the electrical waterbath

d) neck cutting

e) entering a gas killing system.

S(TV) 1.2 LEGAL CCTV cameras must be positioned to ensure a clear view of the processes being monitored is achieved at all times.

S(TV) 1.3 LEGAL It must be possible to observe clearly the view from each camera at all times via one or more monitors.

S(TV) 1.4 LEGAL CCTV footage must be recorded at all times where animals are undergoing any of the processes listed under standard S(TV) 1.1.

S(TV) 1.5 LEGAL The recorded CCTV footage must be:

a) retained by the slaughter facility for a period of at least three months, and

b) available for viewing on site on request.

Where possible it may be useful for managers to retain CCTV footage for longer than the three months specified in standard S(TV) 1.5, for their own monitoring and security purposes.

NEW **The RSPCA is currently reviewing Intelligent Camera Surveillance systems for use in slaughter plants. These systems can alert relevant slaughter plant staff to potential welfare concerns in real time, allowing situations to be dealt with quickly and efficiently. They can also be used to identify areas where staff require additional training or where staff safety is at risk. It is strongly recommended that slaughter plants adopt such technologies to help further safeguard animal welfare in their plant. Where such technology is being considered, please contact the RSPCA Farm Animals Department for further information.**

Lairage

S 3.1 Where possible, hens must be unloaded immediately on arrival at the slaughterhouse and placed in an environmentally controlled lairage.

S 3.2 All transport containers must be examined on arrival at the slaughterhouse to identify any birds suffering from injury, heat or cold stress.

S 3.3 Any bird identified as suffering from injury, heat or cold stress must be killed immediately and humanely.

S 3.4 Before the next consignment from the same source is collected and within 48 hours, all deaths and injuries during transport must be recorded and reported to:

a) the driver

b) the haulier

c) the PWO

d) the farm manager.

S 3.5 In the lairage where hens are held the following must be provided:

a) protection from direct rays of sun and from adverse weather, i.e. wind, rain, hail, snow, etc.

b) adequate ventilation (temperature and humidity in the lairage must be regularly monitored and controlled)

c) be kept within their thermal comfort ('safe') zone, as indicated within the Defra sponsored document entitled *Guide to Alleviation of Thermal Stress in Poultry in Lairage* (PB 3724).

d) reduced or blue lighting.

The temperatures shown within the *Guide to Alleviation of Thermal Stress in Poultry in Lairage* document are those measured within the module crate itself, which is approximately 9ºC higher than the surrounding ambient temperature.

S 3.5.1 There must be a contingency plan in place to state what action will be taken in the event of heat stress occurring.

S 3.6 Where causes of mortality have been identified, prompt action must be taken to prevent further deaths, injury or suffering occurring.

S 3.7 If transport mortality exceeds 0.5% on any individual journey:

a) the level of mortality must be recorded

b) there must be an investigation to establish the cause/s of death, the outcome of which must be recorded

c) effective preventative measures must be put in place without delay to remedy the problem.

S 3.8 Once hens have arrived at the premises at which they are intended to be slaughtered/killed, they must not be moved on to other premises for slaughter/killing.

S 3.9 Standby equipment, for example a generator, must be available for emergency breakdowns.

S 3.10 The lairage must be designed in order to minimise any distress caused to the birds.

The design of the lairage should include aspects such as flooring. Uneven flooring can cause physical discomfort to birds when moving them through the lairage in modules.

S 3.11 All birds must be slaughtered as soon as possible on arrival at the processing plant and in any case within four hours.

Shackling

S 4.1 The shackling of live birds is only permitted:

a) where:

i. birds are slaughtered/killed on the farm where they were reared for finishing, and

ii. birds are not subjected to any transport by vehicle to the place of slaughter/killing, and

iii. the only commercially/practically viable option available is to slaughter/kill the birds using a system that requires shackling, and

iv. written permission has been sought from and granted by the RSPCA Farm Animals Department

b) in the event of an emergency and when the most humane and only available alternative is to slaughter/kill the birds using a system that requires shackling.

With respect to S 4.1 a), the RSPCA will phase out inverted shackling of conscious birds as soon as a commercially viable and more humane alternative method of slaughter/killing is available and suitable for use on-farm.

For the purposes of S 4.1 b), emergency situations include: culling in the event of notifiable disease outbreaks; and, as a 'back-up' in the event of failure of the usual, permitted killing/slaughter system.

S 4.2 Where a system that requires live bird shackling is used as a 'back-up' (see Standard S 4.1b):

a) a record must be made of:
   i. the date and time of the breakdown of the permitted system
   ii. the cause of the breakdown
   iii. the date and time the system is back in use
b) only birds already loaded onto a vehicle for transport may be killed
c) steps must be taken to fix the failure as soon as possible.

S 4.3 Shackles must be of a size and type, and the slaughter line run at a speed, which permits hens to be hung on without causing unnecessary pain or distress.

S 4.4 Shackling teams must be:

a) thoroughly trained to handle the birds in such a way as to avoid injury and bone breakage
b) made fully aware of the risk of breakages that the hanging-on procedure can cause to hens
c) supervised by a trained and competent person during the shackling process.

S 4.5 Slaughterhouse managers must ensure that sufficient personnel are employed on shackling lines at all times to ensure due care and diligence.

S 4.6 The shackler must use a handling technique that calms the bird as it is being shackled.

Gently running the hands down the legs and body of the bird after shackling has been shown to reduce the incidence of wing flapping. Keeping hold of the bird's legs for 0.5 seconds after shackling has been reported to have a similar effect.

S 4.7 Birds must be hung on by both legs.

S 4.8 From the point of shackling to entry into the stun bath there must be:

a) breast comforters to prevent wing flapping and birds raising their heads
b) reduction in noise level
c) maximum light level of 5 lux (to be measured at bird eye level)
d) there must be no unevenness in the line causing the shackles to jolt.

The provision of a breast comforter and a reduction in noise and light levels all help to calm the bird and prevent it raising its head, vocalising and wing flapping, which can all be behavioural indicators of discomfort. Wing flapping can cause the occurrence of red wing tips which, as well as being a welfare issue, can result in downgrading of the carcass.

Breast comforters should be constructed from firm rubber or plastic curtain and extend below the eye level of the bird.

There should be no bends in the shackle line from the point of shackling to entry into the stunbath.

S 4.9 Care must be taken to ensure that birds cannot:

a) escape from the holding area

b) fall from the shackle line.

S 4.10 Where loose birds are found, they must:

a) be taken immediately to the hanging-on area, or,

b) if injured, immediately and humanely slaughtered/killed away from the line.

S 4.11 Hens must not be suspended for more than 30 seconds before they are stunned.

> **Shackling a bird can cause discomfort and pain, so it is important to reduce the shackling period to a minimum. However, for an effective stun, it is necessary for the bird to be shackled for a short period, to allow it time to relax and stop wing flapping. Therefore, live chickens should not be suspended for more time than is necessary for wing flapping to cease, which has been shown to be around 15 seconds on average.**

S 4.12 With respect to S 4.2 a), where the shackling of conscious birds is permitted on farm, birds must only be suspended for the shortest time necessary to undertake the killing/slaughter humanely and in any case for no more than 20 seconds before they are stunned.

S 4.13 All crates must be checked to ensure no hens are left inside them.

Stunning

S 5.1 LEGAL Stunning equipment must be of one of the following types:

a) electrically-live stunning bath

b) dry stunner incorporating an electrically-live metal grid or bar

c) hand operated stunner.

S 5.2 Unstunned birds must be screened from dead birds.

S 5.3 The line to the stunning bath must be darkened or lit with blue light.

S 5.4 Where an electrical stunning bath is used:

a) the stunning bath must be set at a height appropriate for the size and number of birds

b) the height must be set such that the heads of all birds are covered by the water

c) it must deliver an average minimum current of 120mA per bird

d) the current must never go below 105mA

e) it must operate at a frequency of 50Hz with a sinusoidal (AC) waveform

f) each bird must be in contact with the current for a minimum of 4 seconds

g) the water level must be of sufficient depth to cover the heads of the birds

h) the water must not overflow at the entrance to the bath

i) the electrode which is immersed in the water must extend the length of the water bath

j) it must be designed and set up to prevent birds receiving pre-stun shocks

k) it must be fitted with an ammeter to accurately monitor current flow through the bath when loaded with birds.

50Hz sine wave (AC) is the optimum frequency and waveform for inducing cardiac arrest. The heart muscle is particularly sensitive to this frequency and when sufficient current is applied to the heart it ceases to beat normally and pump blood around the body. Therefore, an effective stun-to-kill can be achieved when using this frequency, which is the most preferred outcome to achieve good welfare during slaughter.

A steeply inclined flat ramp bolted on to the entrance of the waterbath can be effective in avoiding pre-stun shocks. The ramp should extend over the water so the birds get drawn up the ramp by the shackle line and then swing down into the water in one smooth movement. This results in the bird's head and wing entering the water together and the bird is stunned immediately.

Care is needed to ensure birds do not receive pre-stun shocks from the ramp itself. This may occur if the ramp is electrically live because of water flowing from the bath onto the ramp, or if it is not isolated from the rest of the stunner.

Source: Humane Slaughter Association (HSA). 2006. *HSA Technical Note 16: Prevention of Pre-Stun Shocks in Electrical Waterbaths*. HSA, Wheathampstead, Herts., UK (www.hsa.org.uk).

1A = 1000mA. Therefore, 105mA = 0.105A.

S 5.4.1 The shackle – at the point where it meets the hen's leg – must be wet prior to the hen entering the stunbath.

S 5.4.2 Stunning using a DC waveform is prohibited.

There is mixed opinion from researchers as to the effectiveness of using a DC waveform for stunning chickens. In particular, there are concerns over whether a bird is effectively stunned when subjected to a DC waveform. Current literature on this subject states that DC stunning raises serious welfare concerns and that the use of DC stunning should be actively discouraged. Therefore, the use of DC stunning is prohibited under the scheme until there is further, unequivocal research in this area to suggest that DC stunning would offer at least a welfare neutral alternative to AC stunning.

S 5.5 All stunning and bleeding equipment must:

a) be properly maintained

b) be regularly cleaned

c) be checked daily to ensure that it is in full and proper working order.

S 5.6 Any problems must be:

a) reported to the PWO

b) rectified immediately.

S 5.7 All birds leaving the water bath must be checked to ensure they have been effectively stunned or killed.

S 5.8 Birds which fail to be properly stunned must be humanely slaughtered before entering the scalding tank.

S 5.9 Staff must be trained to recognise the signs of an effective stun, and use these signs to ensure that birds have been effectively stunned or are dead.

The most reliable indicator that a bird is properly stunned by the low voltage method is the electroplectic fit. The characteristics of this condition are:

- **neck arched with head directed vertically**
- **open eyes**
- **wings held close to the body**
- **rigidly extended legs and constant rapid body tremors.**

The physical conditions of the electroplectic fit are shorter lasting and less pronounced when cardiac arrest is induced at stunning. They are followed by:

- **completely limp carcass**
- **no breathing**
- **loss of nictitating membrane reflex**
- **dilated pupils.**

S 5.10 If the slaughter line is stopped for longer than 60 seconds, birds between the point of shackling and the killer must be humanely killed immediately.

Bleeding

S 6.1 to S 6.6 do not apply to gas killing systems, whereby the birds are killed within the system.

S 6.1 After stunning each bird must:

a) be decapitated (the head removed), and

b) the head macerated immediately following decapitation.

S 6.2 After stunning, both carotid arteries and jugular veins must be effectively severed using a ventral cut.

S 6.3 Where an automatic neck cutter is used, the cut must be checked by the appointed member of staff who must be given sufficient time to sever the blood vessels manually, if necessary.

S 6.4 No more than 10 seconds must elapse between stunning and neck cutting.

S 6.4.1 There must be sufficient time after stunning and prior to neck cutting/decapitation to assess the effectiveness of the stun.

S 6.5 LEGAL All birds must be checked to ensure that they are dead before entering the scalding tank.

S 6.6 Hens must not be immersed in a scalding tank or plucked until at least 90 seconds have elapsed since the major blood vessels in their necks have been severed.

Gas killing

The use of gas under controlled conditions as a means of killing birds can provide many welfare benefits over conventional waterbath stunning, such as reduced manual handling, avoiding the need to invert and shackle live birds and a more consistent killing process.

The use of fully enclosed gas systems, whereby the gas is introduced to the birds, can offer a greater level of control and uniformity over the killing process and are therefore strongly encouraged.

Inert gases, inert gases with carbon dioxide, and carbon dioxide gas only, are all permitted for use under these standards (see Standard S 7.3 for more detail). However, unlike carbon dioxide, inert gases, such as argon and nitrogen, have been reported to be non-aversive to poultry and can therefore offer a more humane induction to unconsciousness.

Where carbon dioxide gas only is being used, exposing birds to a controlled, gradually increasing concentration of carbon dioxide results in a smoother transition to unconsciousness and is strongly encouraged. Initial exposure to a concentration around, or increasing up to, 20% carbon dioxide for a period of approximately 60 seconds, followed by exposure to a higher concentration of around 28%, until birds have lost consciousness, has been shown to work well in practice.

S 7.1 For processors choosing to use carbon dioxide gas only, systems must be designed and operated to expose birds to a gradually increasing concentration of carbon dioxide until the birds have lost consciousness.

Please contact the RSPCA Farm Animals Department to discuss what systems would be considered acceptable to comply with Standard S 7.1.

S 7.2 Nominated persons responsible for the operation of the system during the killing of birds must be properly instructed as to:

a) the method of operation of the system

b) the procedures for flushing the system with atmospheric air

c) the procedures for emergency evacuation of birds from the system

d) the criteria for assessing an effective stun and kill.

S 7.3 **LEGAL** The following gas mixtures are permitted for use:

a) argon, nitrogen or other inert gases, or any mixture of these gases, in atmospheric air with a maximum of 2% oxygen by volume; or

b) any mixture of argon, nitrogen, or other inert gases with atmospheric air and carbon dioxide, provided that the carbon dioxide concentration does not exceed a maximum of 30% by volume and the oxygen concentration does not exceed 2% by volume; or

c) carbon dioxide (delivered in two phases) which does not exceed,

   i. an average maximum concentration of 30%, and

   ii. a maximum concentration of 33%, until birds have lost consciousness (Phase 1).

In relation to Standard S 7.3, the maximum concentration of carbon dioxide conscious birds are exposed to should not exceed 30%. However, due to the nature of gas injection systems, it is acknowledged that there will be some variability in the concentration of carbon dioxide within the system. Therefore a 10% tolerance on this concentration has been applied, i.e. permitting a maximum concentration of 33% carbon dioxide.

Further, following loss of consciousness by exposure to carbon dioxide gas only, it is a legal requirement to expose the birds to a concentration of carbon dioxide above 40% until death, which is classified as Phase 2.

S 7.4 Where applicable to the gas system being used, Standard Operating Procedures must clearly describe any adjustments required to the system to account for:

a) birds of different weights/ages

b) birds from different production systems, i.e. indoor and free-range, including organic

c) any other factors likely to affect the operation/management of the system, such as:

   i. bird feather condition

   ii. bird cleanliness

   iii. wind speed and direction

   iv. air humidity

   v. environmental temperature

   vi. transport crate stocking density.

S 7.5 Where pre-filled gas systems are used, there must be a written procedure that clearly explains how the correct gas concentration gradient is:

a) achieved within the system prior to birds entering, and

b) consistently maintained at all times during the gas killing process.

S 7.6 A contingency plan must be in place that details what action is to be taken to help safeguard the welfare of the birds if a system failure occurs while birds are in the system.

S 7.7 In the case of a system failure:

a) there must be a permitted back-up killing method available and ready for use at all times that is capable of dealing with all birds awaiting killing (see Standard S 5.1)

b) where the permitted back-up method is used, the following must be recorded:

   i. the date and time of the failure

   ii. the reason/s for the failure

   iii. the time taken to evacuate the birds from the system (where required)

   iv. the time the failure was rectified and normal gas killing resumed.

S 7.8 There must be a means of flushing the system with atmospheric air with the minimum of delay.

S 7.9 Prior to the commencement of processing birds each day, checks must ensure there is a sufficient supply of gas to kill all the birds to be received.

S 7.10 Where more than one type of gas is used, the gases must be mixed thoroughly prior to supply in the system.

S 7.11 Live birds must remain in their transport containers throughout the gas killing process.

S 7.12 There must be a means of access to any bird within the system with the minimum of delay.

S 7.13 There must be a diagram readily available on site that clearly and accurately shows the location of all the gas concentration monitoring sensors.

Gas sensors should be positioned to accurately report the gas concentration/s being experienced by the birds. For example, in tunnel systems, the sensors should be positioned at bird head height.

S 7.14 Birds must not be subjected to the gas prior to entry into the system.

S 7.15 For pre-filled gas systems, birds must not enter the system until the correct gas concentration throughout the system has been achieved.

S 7.16 Once birds have entered the system they must be subjected to the correct gas concentration without delay.

S 7.17 For systems using inert gases, birds must be exposed to the maximum concentration of the gas mixture within a maximum of 10 seconds after entry into the system.

S 7.18 There must be a means of clearly visually monitoring in real time the birds throughout the gas killing process, i.e. from start/point of entry to finish/exit.

For tunnel systems, the installation of appropriately positioned windows at regular intervals along the entire length of the system can be sufficient to satisfy standard S 7.18. However, the use of windows in such systems to clearly assess the effect of the gas on birds can be difficult. Therefore, ideally, cameras should be installed, either to follow the birds through the system or at critical monitoring paths.

Where windows are used to monitor birds, it may be necessary for them to be cleaned regularly to ensure visibility of the birds is maintained and thus the requirement of standard S 7.18 is met at all times.

S 7.19 For tunnel and pit type systems:

a) there must be suitable equipment available on site and ready for use at all times that can clearly record the behaviour of a group of birds continuously as they progress through the system to the point of losing consciousness, and

b) it must be possible to view the footage in real time and/or promptly after it has been recorded.

A suitable mobile digital camera with a recording function mounted within a suitable container, e.g. a wire cage, that can be placed in with the birds in their transport container could be used to satisfy Standard S 7.19. NB. It may be necessary to provide additional light, e.g. a torch, within the container.

S 7.20 The movement of the transport crates through the system must minimise any disturbance caused to the birds.

S 7.21 The induction to unconsciousness must be calm, i.e. birds must not show any avoidable signs of fear or excitement, such as wing flapping or escape behaviour.

> **When a bird loses posture and neck tension, this is likely to indicate the bird is unconscious.**
>
> **During exposure to carbon dioxide, birds perform some headshaking, deep breathing and gasping prior to the loss of consciousness. If these behaviours are performed at a high frequency or vigorously then this is a welfare concern.**

S 7.22 Bird behaviour during induction to unconsciousness must be assessed, and the outcome recorded, at the following times to ensure the induction to unconsciousness is calm:

a) at the start of each day's kill, i.e. the first birds to enter the system that day

b) at least every hour

c) immediately following any break in processing

d) immediately following any change in processing that could adversely affect bird welfare during induction to unconsciousness, e.g. alterations to the setup or operation of the system (see standard S 7.4).

S 7.23 If birds show avoidable signs of fear or excitement (see standard S 7.21), then:

a) action must be taken without delay to investigate the cause/s

b) the cause/s of the issue must be rectified prior to more birds entering the system

c) a record of the cause/s and action/s taken to rectify the issue must be kept.

S 7.24 After loss of consciousness, birds must remain unconscious until death.

S 7.25 Birds must be dead on exit from the system.

S 7.26 For carbon dioxide gas only systems, minimum dwell times to achieve i) loss of consciousness prior to exposure to a gas concentration exceeding 33% and ii) death on exit from the system must be:

a) established

b) documented

c) adhered to at all times.

S 7.26.1 In relation to standard S 7.26, if dwell times vary according to various factors, such as bird weight, then separate dwell times must be established for each factor.

S 7.27 For carbon dioxide only gas killing systems, time to loss of consciousness – from entry into the system/start of the gas killing process – must be recorded:

a) hourly, and

b) following any change in processing that could affect the time to loss of consciousness, e.g. alterations to the setup or operation of the system (see standard S 7.4).

> **The time to loss of consciousness should be recorded at the point when it appears that all birds in a crate have lost consciousness.**

S 7.28 Where inert gases are used:

a) the birds must be exposed to the gas mixture for no less than three minutes

b) the total amount of time birds are exposed to the gas, i.e. the dwell time, must be

i. recorded at least hourly,

ii. measured continuously, displayed and recorded.

S 7.29 For tunnel and pit type systems, the following must be recorded hourly:

a) the transport crate throughput per minute

b) the average weight of the birds being processed.

S 7.30 There must be sufficient time and space after exiting the system and prior to any other procedure to assess the effectiveness of the kill.

S 7.31 On exiting the system, all birds must be checked as soon as practically possible to:

a) ensure they are dead

b) identify any signs of damage or injury that could have been caused in the system prior to them losing consciousness.

Reliable indicators that a bird is dead include:

- **completely limp carcase**
- **no breathing**
- **loss of nictitating membrane response**
- **dilated pupil and absence of papillary response, i.e. no constriction of the pupil in response to a bright light shone into the eye from a distance of 5cm.**

S 7.32 Any birds that are not dead after exiting the system must be humanely killed without delay.

S 7.33 During the gas killing process, the concentration by volume of each gas used must be continuously:

a) measured

b) displayed

c) recorded

S 7.34 The correct gas concentration/s must be maintained at all times during the killing process.

S 7.35 It must be demonstrated that the correct gas concentration gradient/profile is being maintained throughout the system consistently.

With regards to standard S 7.35, it will be necessary to provide recent (within the last 12 months) real time graphical outputs of the actual gas concentration profile birds are exposed to throughout the killing process, i.e. printed or electronic graphical outputs showing gas concentration continuously over time as birds undergo gas killing. This will need to be for at least three separate runs.

The gas concentration gradient/profile should be continuously monitored and recorded throughout the system at all times.

S 7.36 Gas sensors must be linked to an audible and visual alarm system, which is automatically triggered:

a) when the maximum residual oxygen level is above 2% where inert gases are used

b) when the concentration by volume of carbon dioxide rises/ is likely to rise above the maximum permitted level (see standard S 7.3).

S 7.37 Birds must not enter the system at any time when:

a) the audible and visible warning signals have been activated (see standard S 7.36)

b) there is any defect in the operation of the system.

S 7.38 The temperature of the gas must:

a) be continuously monitored either within the system or immediately prior to entry into the system

b) be sufficient to achieve an air temperature within the system equivalent to the current ambient temperature, i.e. the air temperature within the vicinity of the system at the time of processing

c) be continuously recorded or recorded at least hourly.

Air temperature within the system should be continuously monitored, displayed and recorded throughout the system at all times.

S 7.39 Records showing the air relative humidity within the system prior to birds losing consciousness during killing must available on request (records must be no more than 12 months old).

Standard S 7.39 can be achieved by providing an independent report that has measured this parameter within the last 12 months.

Air relative humidity should be continuously monitored, displayed and recorded throughout the systems at all times.

It is a legal requirement to ensure the humidity within the system does not adversely affect bird welfare by being too low. EFSA (2004)[1] have stated that controlling humidity (and temperature) of gas mixtures could help to alleviate any physical discomfort and distress caused by inhalation of the gas mixtures and therefore improve bird welfare.

Ideally, air relative humidity should be above 60%; air relative humidity levels below 60% may cause a more painful stimulus of the bird's respiratory tract[2].

[1]EFSA (2004) Welfare aspects of animal stunning and killing methods: *Scientific report of the Scientific Panel for Animal Health and Welfare on a request from the Commission related to welfare aspects of animal stunning and killing methods.* Italy, [Online] EFSA. Available from:

https://www.efsa.europa.eu/en/efsajournal/pub/45 (Accessed 12/07/2016).

[2]Gerritzen, M. A., Remiert, H. G. M., Hindle, V. A. M.., Verhoeven, T. W., and Veerkamp, W. B. (2013) *Multistage carbon dioxide gas stunning of broilers*. Poultry Science, 92:41-50.

S 7.40 Gas sensors must be calibrated:

a) at regular intervals

b) according to the manufacturer's procedures and recommendations.

S 7.40.1 A verifiable record of calibration must be kept.

S 7.41 Gas systems must:

a) not cause injury to conscious birds

b) be well maintained

c) be cleaned according to the manufacturer's instructions.

S 7.42 Records of birds recovering consciousness after exposure to gas mixtures must be maintained.

S 7.43 Where signs of damage or injury to conscious birds are identified:

a) this must be thoroughly investigated to ascertain where and how this may have occurred

b) immediate action must be taken to rectify the problem

c) this must be recorded, including the results of the investigation into the cause and the outcome of the action taken to rectify the problem.

S 7.44 If any bird escapes from its transport crate within the system, then:

a) this must be recorded, and

b) preventative measures must be put in place to prevent this reoccurring

c) any preventative measures employed must be recorded.

S 7.45 All records relating to this section of the standards (Gas Killing) must be kept for at least 12 months and made available on request.

Planned on-farm slaughter/killing

S 8.1 The only permitted methods for planned on-farm slaughter/killing (but see also S 8.2) are:

a) hand held electrical stunning, immediately followed by neck cutting

b) captive-bolt followed by neck dislocation and bleeding (neck dislocation and bleeding are not necessary when captive-bolt is used for emergency culling or during disease control operations).

S 8.2 Any producers considering neck dislocation for planned on-farm killing must contact and liaise with the RSPCA Farm Animals Department.

S 8.3 The captive bolt device must be used and maintained according to the manufacturer's guidelines.

S 8.4 Equipment that crushes the neck, including killing pliers, must not be used.

Equipment that crushes the neck is neither quick nor humane.

If producers are in any doubt as to whether the equipment they intend to use crushes or dislocates the neck, they should contact the Farm Animals Department prior to using the equipment.

Appendix 1

Transport – standard operating and emergency procedure

Items to be included

1. Out of hours telephone numbers and emergency procedure.
2. Accident procedure.
3. Certificate of motor insurance.
4. Tyres – punctures – codes of practice.
5. Mobile phones or other communication equipment (and procedures for use).
6. Guidelines on correct environmental conditions during the journey, depending on length of journey and ambient temperature.
7. RSPCA welfare standards relating to transport of laying hens and pullets.
8. Procedure for loading/unloading of poultry transporters.
9. Procedure for delivery of poultry to customer sites.
10. Logistics UK – *HGV Drivers' Handbook* (2022), including tachograph regulations.
11. Fire extinguishers.
12. Operating procedures for roadside checks.
13. Defra leaflet *Guide to Alleviation of Thermal Stress in Poultry in Lairage* (Defra PB 3724, 1998).
14. Daily journey sheet.
15. Torch.

Appendix 2

Depopulation Action Plan (DAP)

The following pages provide an example of a DAP template (see Transport – Depopulation section). The DAP template should be further developed to meet any specific requirements relating to a particular unit.

Responsibilities during depopulation:

- **Producer/farm manager (or named supervisor)**

  Ultimately responsible for the welfare of the birds, until they are loaded into the transport modules/crates.

- **Catching team leader**

  Responsible for supervising the catching process, making sure all catching team members are aware of their duties and are competent to carry them out.

- **Senior members of the catching team**

  Experienced senior members of the catching team, appointed by the catching team leader, to help supervise the other members of the catching team.

- **Haulier (driver)**

  Responsible for making sure all birds are fit to travel and for the welfare of birds from the time they are placed into the transport modules/crates until they are unloaded from the modules/crates at the slaughter facility.

Depopulation Action Plan (DAP) – prior to depopulation

To be completed by the producer/farm manager or appointed representative

Action	Carried out? (include date)
Complete up to one month prior to depopulation	
Liaise with the processor as to the depopulation date. Report: a) the production system b) number of birds c) breed d) approximate weight e) feather condition f) health status of the flock g) any access problems	
Ensure the roadways are in good condition for access to the unit	
Ensure the ground where the loading of birds will take place is in good condition	
Liaise with the haulier and catching team leader regarding the arrival time	
Liaise with the catching team leader regarding catching frames, to establish whether or not the catching team will bring their own (Modules can be used for making a pen for the birds and are easily moved in the event that smothering begins)	
Prepare the catching plan (a copy to be kept with the DAP) Include: a) the catching route - minimise the number of steps up, down or over required to reach the vehicle - minimise any problems of uneven or otherwise hazardous flooring - consider the width of the doorways in order to allow easy and safe access when carrying birds - how to protect birds from adverse weather conditions once outside of the building, both during loading and whilst on the vehicle b) the handling plan - double leg catching - no more than three birds to be carried per hand - consider matching numbers in hands to multiples of the drawer stocking density - use of catching frames - consider penning into small groups to help minimise crowding and smothering - humane killing of unfit birds immediately, rather than being left until the end of the depopulation - how loose birds will be dealt with	
Prepare contingency plan for the eventuality that the catching team cannot arrive as planned.	
Complete the day before depopulation	
Ensure all access roads and the areas around the poultry unit doors are clean, tidy and clear of clutter.	

Depopulation Action Plan (DAP) – on the day of depopulation

To be completed by the producer/farm manager or appointed representative

Action	Carried out? (include date)
Prior to arrival of the catching team and haulier	
Ensure all non-permanent fixtures and fittings with the potential to hinder the catching process have been removed from: a) the catching area b) the route used for carrying birds out to the loading area This may include feeders, drinkers, perches and any other farm equipment, particularly where sharp edges and protrusions could cause injury to the birds or catching team.	
Close nest boxes	
Block off any corners etc. where birds could hide	
Upon arrival of the catching team/haulier	
Give the written catching plan to the catching team leader	
Instruct the catching team leader as to the lighting available and where the controls are located	
Show the catching team leader where all necessary facilities are located In order to safeguard the welfare of the birds during depopulation it is important to create and keep a relaxed atmosphere in order to ensure that the operation proceeds smoothly. Providing facilities for the catching team, such as toilets, tea and coffee will help to achieve this.	
Upon arrival of the catching team/haulier	
Procedure for dealing with loose birds	

Depopulation Action Plan (DAP) – key personnel

Name of producer/farm manager or appointed supervisor:

Name (block capitals) _____ **Signature** _____

Name of catching team leader:

Name (block capitals) _____ **Signature** _____

Name of catching team _____

Name of senior (accredited) team member(s):

Name (block capitals) _____ **Signature** _____

Name (block capitals) _____ **Signature** _____

Name of catching team member responsible for the humane destruction of casualty birds:

Name (block capitals) _____ **Signature** _____

Name of haulier:

Name (block capitals) _____ **Signature** _____

Depopulation Action Plan (DAP) – post depopulation

To be completed by the producer/farm manager or appointed representative

Number of unfit birds killed during catching	
Number of DOAs and injuries upon arrival at the slaughter facility (to be received within 48 hours of the depopulation)	
Causes of mortality:	
Action taken to prevent further deaths and injury:	

To be completed by the producer/farm manager or appointed representative and the catching team leader

Review of depopulation (include both positive and negative feedback)

a) Producer/farm manager's or appointed representative's comments:

Signed _____ **Date** _____

b) Catching team leader's comments:

Signed _____ **Date** _____

c) Details of any action required and by whom:

Appendix 3

Case study: Successfully providing raised perching for laying hens

See standards E 10.1 to E 10.6

Background

Perching is an important natural behaviour which hens are highly motivated to perform, particularly at night[1], making the provision of raised perches important[2].

In England and Wales, Government interpretation of the Commission Directive (1999/74/EC) permits slatted areas to count towards perch provision, partly due to concerns regarding keel bone damage. However, research on commercial free-range systems has shown that the provision of **raised perching does not uniformly contribute to keel bone injuries**[3]. Rather, it has been reported that key risk factors causing keel injury are related to poor perch and house design[3].

For example, poor perch design and placement can cause birds to crowd, which can then compromise the birds' ability to land accurately[3,4].

This case study looks at one company that has successfully provided 15cm of raised perch space per bird in commercial flat deck systems. This company participated in research trials on a commercial scale, which showed raised perching improved bird welfare through reduced aggression, reduced fearfulness and improved body condition[5] without compromising keel bone health[3].

Raised perch design

The company installed raised perching from 2002 via a mixture of providing half A-frames (see Figure 1) and providing perches above feeder and drinker lines. To ensure stock-keeper movement was not hindered by birds crowding on the slatted area, half A-frames were positioned over the slats and were mounted on the queen posts (between the litter and slat areas) and on the house wall (houses with one litter area). The frames slightly varied in design across different houses, but the key similarities between them were that:

- the perches had either a square or circular profile[3,5]; a square or flattened profile reduces pressure on the keel[6].
- the perch rungs were at an incline/decline of not more than 45˚, which is critical for birds' downward movement[7].
- there were 4-6 rungs of perching, 3cm in diameter, provided per frame[3,5].
- they folded down enabling ease of movement through the system at depopulation and cleaning.
- they were designed to provide easy bird movement from the nearest feed track mounted perch, or from the slats, to the lowest raised perch on the frame.

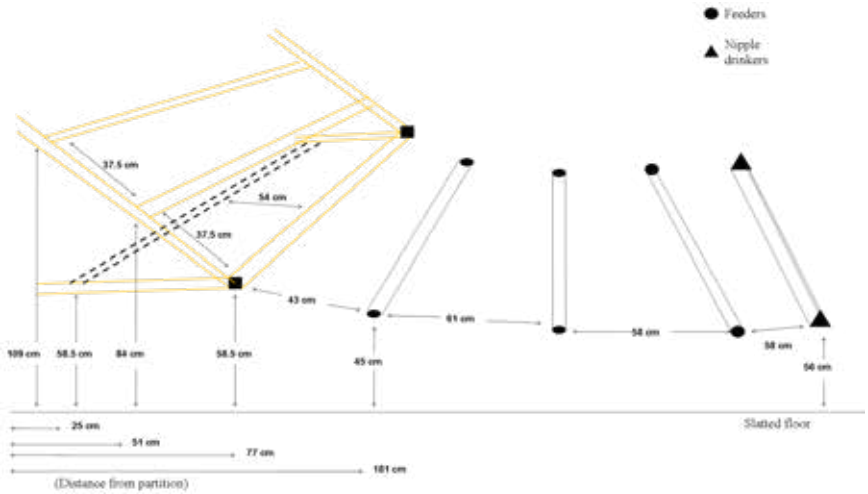

Figure 1. Diagram of one design of the half A-frame raised perching used in a commercial flat deck system.

Reproduced from C. J. Donaldson et al. Aerial Perches and Free-Range Laying Hens: The Effect of Access to Aerial Perches and of Individual Bird Parameters on Keel Bone Injuries in Commercial Free-Range Laying Hens. Poultry Science (2012) 91 (2): 304-315 (Fig. 2). By permission of Oxford University Press on behalf of the Poultry Science Association. This material is published under a Standard License. For permissions please contact journals.permissions@oup.com.

The benefits of raised perches

Whilst the inclusion of raised perches was driven, at least in part, by the need to comply with new legislation, the company has seen multiple benefits over the last 14 years, which are supported by some of the researchers' findings[5].

- **reduced fearfulness** – birds provided with perches had a reduced flight distance and resistance to handling[5]; reduced fearfulness is associated with reduced injurious pecking risk[8].
- **reduced aggression** – the number of aggressive encounters on the slatted and litter areas was reduced when perches were provided[4]. This may be due to a reduced stocking density on the floor and because the perches provide an area of refuge for the hens[5].

The provision of aerial perching for laying hens can reduce fearfulness, reduce aggression and improve body condition[5].

- **Improved body condition** – birds provided with perches weighed more and had a better body condition score[5].
- **Improved egg quality** – the company reported fewer egg seconds: stress (for example from aggressive interactions or crowding) can lead to an increase in misshapen eggs and calcium deposits on the shell[9].

Photograph showing raised perching in use in a commercial flat deck system.

The company reported reduced levels of floor eggs and improved egg quality from the provision of raised perching.

In addition, the research showed a lower level of birds performing inaccurate landings when birds were provided with perches[5], inaccurate landings can lead to injury[5].

References

[1]Olsson, I.A. and Keeling L.J., 2002. *The push-door for measuring motivation in hens: laying hens are motivated to perch at night.* Animal Welfare. 11: 11-19.

[2]Schrader, L. and Müller, B. 2009. *Night-time roosting in the domestic fowl: the height matters*. Applied Animal Behaviour Science. 121: 179-183.

[3]Donaldson, C.J., Ball, M.E.E. and O'Connell, N.E., 2012. *Aerial perches and free-range laying hens: The effect of access to aerial perches and of individual bird parameters on keel bone injuries in commercial free-range laying hens*. Poultry Science. 91:304-315.

[4]Moinard, C., Rutherford, K.M.D., Haskell, M.J., McCorquodale, C., Jones, R.B. and Green, P.R. 2005. *Effects of obstructed take-off and landing perches on the flight accuracy of laying hens*. Applied Animal Behaviour Science. 93:81-95.

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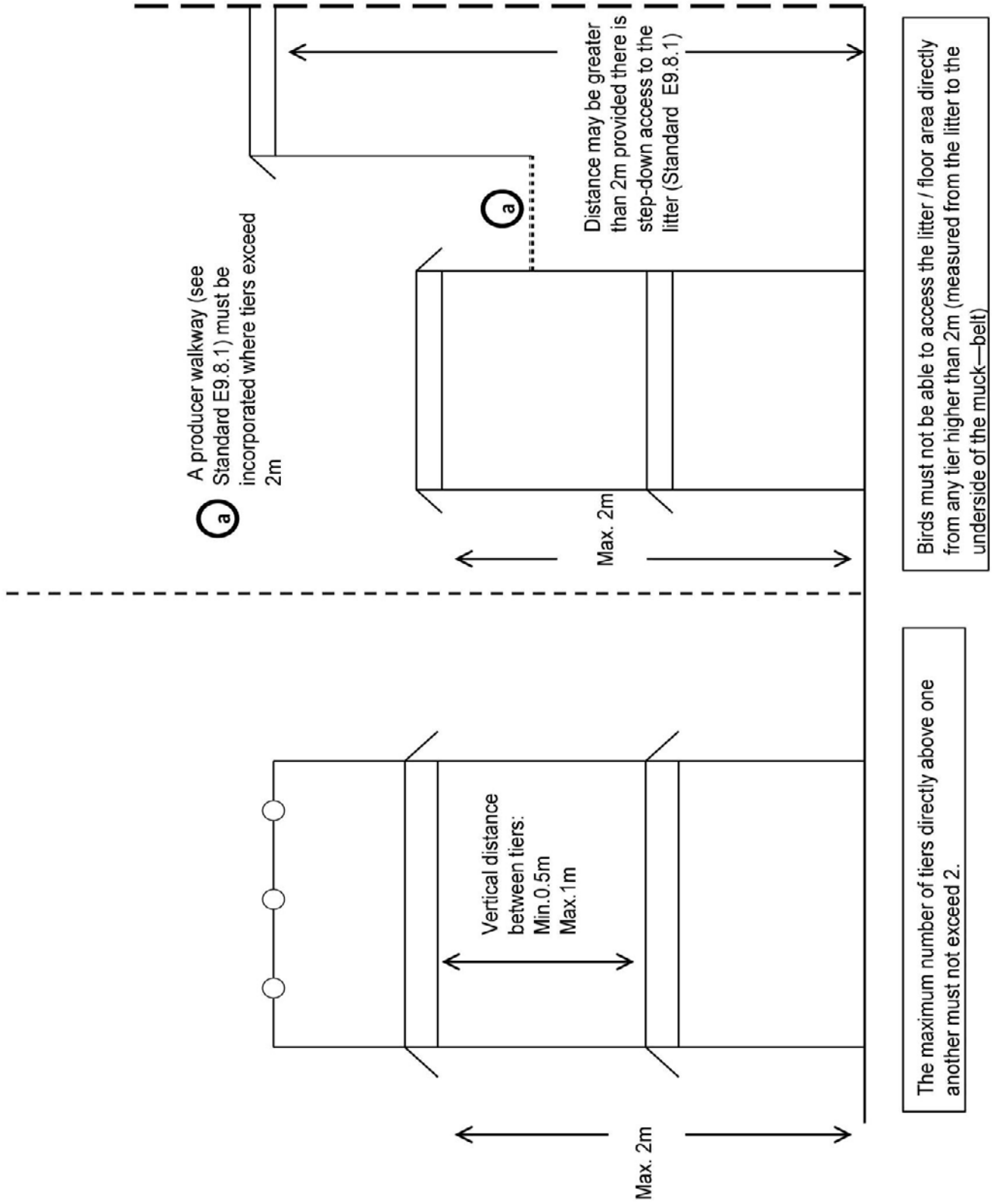
[9]The Poultry Site (2008) *Factors Influencing Shell Quality*. Available: https://www.thepoultrysite.com/articles/factors-influencing-shell-quality [accessed 13/02/23].

Appendix 4

Explanatory diagram for multi-tier systems



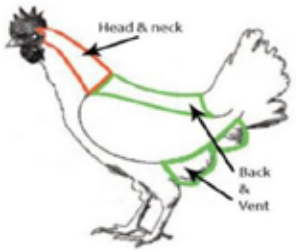
Appendix 5

Feather loss monitoring and intervention

Relating to Standards H1.1, H1.11 & H 1.12

1. Feather Loss Assessment

Assess your flock according to Standard H1.11. This will give you separate scores for the back & vent (B&V) and the head & neck (H&N) regions. These must be converted into a total feather loss percentage for each body region (see section 3 below).



B&V = 0, H&N = 0

B&V = 1, H&N = 0

B&V = 1, H&N = 1

B&V = 2, H&N = 0

B&V = 2, H&N = 2

Score 0 **No / minimal feather loss:** No bare skin visible; no or slight wear; only single feathers missing

Score 1 **Slight feather loss:** Moderate wear; damaged feathers or 2 or more adjacent feathers missing; up to 5cm bare skin visible

Score 2 **Moderate / severe feather loss:** 5cm or more bare skin visible

2. Threshold Values (relating to standard H1.12)

Age of flock (weeks)		16-40	41-44	45-48	49-52	53-56	57-60	61-64	65-68	69+
Total % feather loss threshold values	B&V	0*	0*	2	6	12	16	29	30	24
	H&N	0*	6	7	10	14	14	20	26	20

Where the total % feather loss for a body region exceeds the threshold value shown in the table above for the age of your flock, action must be taken to alleviate the feather loss problem.

*Where the threshold value is 0, any feather loss observed in your flock should trigger action to prevent further damage or loss.

These threshold values are taken from 5 years' of welfare assessment data from around 3000 visits to RSPCA Assured farms. Data is also presented in the benchmarking graphs in Appendix 7.

25% of RSPCA Assured producers' flocks have feather loss below these levels.

3. Example

Date: *01/08/17* Flock age: *63*						
	Feather Loss				Action Required?	
	No. Birds Score 1	No. Birds Score 2	Total Score (score 1+2)	Total % (Total Score x2)		
B&V	*11*	*4*	*15*	*30*	Y	N
H&N	*2*	*1*	*3*	*6*	Y	N

In the example given above, the total % feather loss for the back and vent (B&V) region exceeds the threshold value for birds at 63 weeks (29%). Action is required to try and alleviate the feather loss problem observed for the B&V region.

The total % feather loss for the head and neck region (H&N) is lower then the threshold value and therefore further action may not be required. Producers should remain vigilant for any deterioration in feather cover and take action as appropriate.

4. Actions to Alleviate Feather Loss

A wide range of strategies can be employed to reduce the risk of injurious pecking. Research suggests that increasing the number of intervention strategies used on farm reduces the risk of injurious pecking further. It is therefore recommended that as many strategies to reduce the risk of injurious pecking should be included in each flock's action plan as possible. These include, but are not exclusive to:

Litter quality and availability:

Capped or wet litter and insufficient dust bathing and foraging opportunities are strongly associated with increased risk of injurious pecking. Wet litter can increase the risk of disease incidence. Litter should be carefully managed and stocking densities should be considered to ensure sufficient dust bathing and foraging opportunities and good litter maintenance.

Environmental enrichment:

Providing a variety of enrichment items encourages greater bird activity to help reduce or avoid injurious pecking. Items such as brassicas (e.g. cabbage, cauliflower, sprouts and broccoli), alfalfa blocks, suspended haynets filled with suitable foraging materials and straw bales can be effective. Monitoring bird use of enrichment items can help to identify any underutilised items, which should be replaced with alternatives.

Matching rear and lay:

Matched conditions at rear and lay can reduce the stress associated with transfer. Liaise with your rearer to match as much as possible the conditions in the rearing and laying sheds, including: lighting programmes and illuminance (lighting) levels, drinker and feeder type, feed timings and composition, litter type, enrichment provisions and type and positions of slats and perches.

Ranging & range management:

Improved ranging is associated with reduced injurious pecking and feather loss. A well designed and well managed range will encourage ranging and prevent build up of parasites and disease, which can increase the risk of injurious pecking.

Lighting:

Lighting type or source, illuminance (light level), and schedule are all important. Fluorescent lights deteriorate with age and can flicker even at high frequencies, which can be a significant stressor. Shafts of light, dark areas and large contrasts in light levels should be avoided. Consider inviting a lighting consultant to advise on the best lighting for your house.

Diet and feeding:

Feed form, number of feed runs per day and diet changes can all have an effect on injurious pecking. Feed mash rather than pellets, limit diet **changes** as far as possible and reduce the impact of changes by mixing the new feed with existing feed at changes. Addition of fibre to the diet has been linked to reduced injurious pecking.

Health:

Hens with health problems are more likely to experience stress and are at an increased risk of injurious pecking; carefully consider vaccination programmes based on your farm situation and geographic poultry density, improve bio-security protocols and ensure effective cleaning out between flocks.

Indoor climate:

Sudden changes in temperature, humidity and air quality in the house can trigger stress and injurious pecking. High levels of ammonia can make hens more susceptible to certain illnesses. Ensure good ventilation and monitoring programmes. Verandas can help to maintain indoor conditions in free-range systems.

Human animal relationship:

More fearful flocks are more likely to experience injurious pecking; get birds used to low levels of disturbance by frequent walking of the sheds with varied routines.

Feather loss monitoring and intervention record sheet

Date flock placed:						Possible causes of feather loss; Details of intervention / Reason for no intervention
1	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
2	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
3	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
4	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
5	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
6	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
7	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N
8	**Date:**					
	Feather loss:				Intervention required?	
		Score 1	Score 2	Total	Total%	
	B&V				Y	N
	H&N				Y	N

9	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
10	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
11	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
12	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
13	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
14	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
15	Date:						
	Feather loss:					Intervention required?	
		Score 1	Score 2	Total	Total%		
	B&V					Y	N
	H&N					Y	N
End of flock review							
What actions to alleviate feather loss worked well? What actions will you carry through to your next flock?						How did flock performance, including feather cover, mortality and production, compare with previous flocks?	

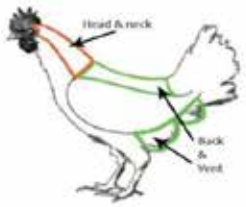
Appendix 6

AssureWel Laying Hen Assessment Protocol and Scoresheet

AssureWel
Advancing Animal Welfare Assurance

Guidance on sampling

Welfare outcome assessments to be carried out in one house only, on the oldest flock on site. (For schemes where individual houses are certified separately, assessments to be carried out in all houses but only recorded and fed back on the oldest flock on site.) If multiple houses at same age, choose a house at random. Where individual birds are assessed, ensure samples are taken from a range of the functional locations in a unit; these can include: litter area, slatted area, raised perches, lower tier, upper tier, range. Ensure samples are taken from a range of geographical locations within the house/range, for example a sample on the range close to the popholes and a sample in the middle of the range. Birds should be sampled to provide a reasonable representation of the proportion of birds in different locations at the time of the visit. For example, if 20% of the birds are on the range then two different samples, each assessing 5 birds, should be from the range (up to a maximum of 5 out of 10 samples on the range). Ensure the birds chosen are a random sample in that location, e.g. sample every 5th bird, and avoid being drawn to certain birds.

1. Feather loss		Individual measure
Sample:	50 birds	
Method of assessment:	Assess and score 5 birds in each of 10 different areas of the house and/or range. Visually assess the head/neck area and back/vent area of the bird (without handling birds). Score separately for **head/neck** area and **back/vent** area.	
Scoring:		
0 =	**No/Minimal feather loss** No bare skin visible, no or slight wear, only single feathers missing	
1 =	**Slight feather loss** Moderate wear, damaged feathers or 2 or more adjacent feathers missing up to bare skin visible < 5cm maximum dimension	
2 =	**Moderate/Severe feather loss** Bare skin visible ≥ 5cm maximum dimension	

2. Bird dirtiness — Individual measure

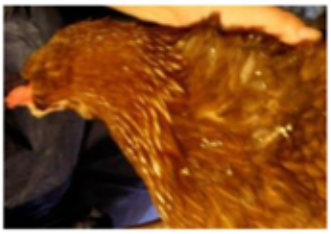
Sample: 50 birds

Method of assessment: Assess and score 5 birds in each of 10 different areas of the house and/or range. Visual assessment of one side of the bird, except the feet and legs.

Scoring:

0 = **Clean**
The bird is clean

1 = **Moderate dirtiness**
There is soiling on at least one part of the bird but no area ≥ 5cm maximum dimension



2 = **Substantial dirtiness**
There is soiling on one or more parts of the bird ≥ 5cm maximum dimension

3. Antagonistic behaviours — Flock measure

Sample: Whole flock

Method of assessment: Observe and listen to the behaviour of birds in the house for one minute (after allowing time for birds to return to undisturbed behaviour) and during the rest of the time spent in the house or on the range.
Antagonistic behaviours include two distinct behaviours:
Aggressive behaviour - fighting, aggressive pecking at or chasing other birds. A social behaviour to establish pecking order.
Injurious feather pecking - includes pulling out feathers, pecking at wounds or vent. Believed to be redirected foraging behaviour.
Both are often signalled by a loud squawk or vocalisation.

Record: **Number** of incidents of antagonistic behaviour observed or heard. Identify, if possible, whether either aggressive behaviour and/or injurious feather pecking are observed.

RSPCA.

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