

Laying Hens: Supplement to the Codes of Practice



Introduction

This Supplement to the Laying Hens Code of Practice has been produced to assist egg producers to implement good practice methods for housing laying hens. It is a legal requirement¹ to take reasonable steps to “ensure that the needs of an animal for which the person is responsible are met to the extent required by good practice”. This document will also answer some common questions that arise during official inspection visits. The suggestions made in this document may go beyond the

EU legal minimum requirements for laying hen flocks of 350 birds or more. However, following the guidance given here may result in such benefits as: a) better health and welfare of your flock; b) assurance that the law is being followed (because you will be implementing more than the bare minimum); and c) less frequent inspections by Scottish Government poultry inspectors (because they will be assured that you are applying good practice methods).

General (applicable to hens in all housing systems)

	Legislation and Interpretation	Good Practice
1.	<p>All hens must be inspected...at least once a day².</p> <p>This daily inspection should be sufficiently thorough to detect illness and injury... special attention should be paid to... condition of the eyes, skin, beak, legs, feet and claws...combs and wattles...presence of external parasites, to the condition of the droppings, to feed and water consumption, to growth and egg production³.</p>	<p>Particular care should be taken to inspect top and bottom cages or levels for injured, ill or trapped birds. Routinely finding dead birds, or finding birds that have been dead a long time, may indicate that inspections are not sufficiently thorough. This is because sick or injured birds should be identified prior to dying, and treated or culled to reduce suffering. In these cases, inspections should be improved or increased in frequency.</p> <p>In alternative systems all birds should move away from you with gentle encouragement. Inspecting hens in nest boxes early on in the daylight period should generally be avoided to prevent disturbance, but nest boxes must be thoroughly inspected as sick or bullied birds may hide here.</p>
2.	<p>Beak trimming may only be performed using the infra-red procedure, in birds under 10 days old. In an emergency to control outbreaks of feather pecking or cannibalism, other methods of trimming may be used⁴.</p> <p>If behaviour problems occur they should be tackled by appropriate changes in management, such as reducing the light intensity. Good quality litter is important for reducing the chances of pecking outbreaks³.</p>	<p>Infra-red beak trimming (or treatment) is currently the only permitted routine method of trimming because it causes less short-term behavioural changes than hot-blade methods (e.g. reduced feeding), and does not appear to cause chronic pain⁵. It also removes the need for catching and handling chicks at 7-10 days, because it is typically performed at the hatchery using an automated system when the chicks are up to one day old.</p> <p>Injurious pecking should be avoided by implementing suitable housing and management practices that allow birds to peck appropriately (i.e. to express foraging behaviour)⁶, for example by scattering feed or grain into litter, running scratch feeders frequently, providing good-quality litter that is regularly topped up, or by providing suitable items to peck at such as pecking boards, ropes, vegetables hung up on string, or bales of straw/woodshavings. In addition, hens should be fed mash, not pellet, diets, in order to extend feeding times which reduces the motivation (and time available) to peck other birds.</p> <p>If beak trimming is required in an emergency then this should only be done by trained operators using a hot blade.</p> <p>If low light levels are used to control feather pecking then light levels need to be increased during bird inspections. Low light intensity or using specific wavelengths of light (e.g. red) can negatively affect eye development and basal corticosterone levels (an indicator of stress), so should be used with caution⁷.</p>
3.	<p>Catching and transport</p> <p>Birds must be caught by BOTH legs, with a maximum of 3 birds held in each hand. Birds in cages must be removed singly to prevent injury or suffering, and the breast should be supported during removal from the cage³.</p> <p>Birds should not be deprived of feed or water before transport; however feed, but not water, may be withheld for up to 12 h prior to slaughter. This period <i>includes</i> the periods of catching, loading, transport, lairage and unloading prior to slaughter³.</p>	<p>Hens in cages are prone to wing fractures during the catching and withdrawal process⁸, most likely due to wing flapping during extraction from the cage. With cages, open the cage door fully before catching and extracting hens one at a time.</p> <p>Where possible, hens should be caught during night time or when the lights are off, as they will be calmer.</p>

Careful consideration should be given to the breed of hens used for different management systems. For advice, contact Scottish Government technical staff or your local SRUC consultant.

Alternative (non-cage) systems



	Legislation and Interpretation	Good Practice
4.	<p>The stocking density must not exceed 9 hens/m² usable area².</p> <p>Platforms available in the third dimension that are at least 30 cm wide contribute to the usable area³.</p> <p>Nest boxes, or areas where the slope of the floor is > 8° (14%), do not contribute to the usable area.</p> <p>The entire useable area has to be made available to the birds at all times.</p>	<p>Hens in alternative systems are prone to keel bone damage in particular⁹ which is likely to be painful^{9;10}. Therefore platform design and positioning should be aimed at minimising the risk of birds striking edges or surfaces that may cause keel bone breaks.</p> <p>Provision of extra platforms and ramps has been shown to reduce falls from tiers, and ramps reduce keel bone fractures in multi-tier systems¹¹. Ramps or transition areas should be provided to allow birds to traverse from the highest points in the house to the litter/ground area to minimise any potential injuries.</p> <p>It is good management practice to restrict newly-housed pullets for a few days to areas where feed and water are located to optimise bird orientation to these resources. However, birds should be given full access to the entire house as soon as possible after the initial orientation period; otherwise they could be classed as being stocked beyond the permitted 9 hens/m².</p>
5.	<p>At least one nest for every 7 hens and, if group nests are used, there must be at least 1 m² of nest space for a maximum of 120 hens².</p> <p>“Nest” means a separate space for egg laying, the floor components of which do not include wire mesh that can come into contact with the hen(s)². The nest floor substrate should encourage nesting behaviour³.</p> <p>Nest floors may be made of wire mesh provided that this is overlain by another material such as straw or plastic³.</p> <p>A thin plastic coating to the wire mesh floor of nest boxes is not adequate as the only nest flooring¹².</p>	<p>The intention of providing a nest and nest substrate to laying hens is to give them a comfortable area in which to lay an egg, and to fulfil nesting behaviour which is a highly motivated behaviour under hormonal control^{6;13}. When they have the opportunity, hens naturally seek secluded, comfortable places to lay. Where large numbers of eggs are being laid outside of the nest, it would indicate that these needs are not being met or that hens are not being guided to the nest at early onset of lay.</p> <p>Hens prefer a nest box with a lining as opposed to a bare wire floor¹⁴ and prefer artificial turf over plastic mesh¹⁵. Material such as Astroturf, rubber matting and perforated plastic matting is acceptable providing it is sufficient to prevent birds from coming into contact with the wire mesh of the nest floor. If these become worn, they must be replaced¹².</p> <p>The nest box must be partitioned from the rest of the laying house by means of separators (e.g. curtains). These should be full-length to the nest box floor, or, where necessary, with as small a gap as possible in order to allow an egg to pass underneath (e.g. about 5 cm).</p> <p>Nest lighting may be used to encourage young hens to explore the nest box area, however these should be turned off as soon as egg production in the nest box reaches an acceptable level, to prevent a greater risk of vent/cloacal pecking.</p>

	Legislation and Interpretation	Good Practice
6.	<p>Perches, without sharp edges, providing at least 15 cm per hen; perches must not be mounted above the litter².</p> <p>The horizontal distance between perches must be at least 30 cm and between perches and the wall must be at least 20 cm². Only perches at 30 cm centres or more should be calculated as part of the perching space³.</p> <p>In agreement with the European Commission¹⁶, Scottish Government interprets perches to be elevated structures raised above floor level. Slatted floors, or perches integrated into the floor, do not count as perch space.</p> <p>Alighting rails can be counted as perch space, as long as they fulfil the birds' physiological needs, ie. hens are able to grip (but not necessarily fully 'lock' their claws around) the perch and balance safely¹².</p> <p>Perches must be placed on or above the slats or other floor area, but not above the litter².</p> <p>Where perches intersect, this area does not count because it is not usable. So where two perches overlap, you may only count one of the two perches fully, and the other perch from a point 15 cm from where the perches meet¹².</p>	<p>Hens use perches for roosting, to reach resources, and to escape unwanted attention from other birds¹⁷⁻¹⁹. Raised perches can provide a comfortable resting place for hens. When they have the opportunity, hens naturally seek perches above ground level to roost at night and favour the highest perches available to them.</p> <p>Perches should not be too high above the slats or tier level so that hens are less likely to injure themselves on descent²⁰. Research has demonstrated that as perch height relative to the slat or litter floor level increases, so does the percentage of birds with keel fractures at the end of lay²¹. A maximum height of about 1 m above the slats or tier level will reduce the chances of keel bone damage.</p> <p>Perches should be fixed (not free-swinging) and not placed directly one above another in the vertical plane, but stepped at an angle no more than 45°^{22;23} and no more than 50-75 cm apart^{24;25} (Figure 1).</p> <p>The recommended headroom above a perch is at least 24 cm, where birds can reach the perch without flying, otherwise 40 cm is appropriate¹².</p> <p>An acceptable perch width is between about 3 and 5 cm^{12;26;27}. Rectangular or square rather than round or oval, and slightly rough rather than smooth, perches are preferable^{20;26} and cause less pressure on the keel bone²⁸. Solid perches may help prevent red mite. Thus, when updating existing perch systems, consider using these preferred designs. Review of research indicates that the material is not of great importance to the hen, as long as it isn't slippery²⁰, however a prototype perch of soft polyurethane has been shown to reduce peak force to the keel²⁸.</p> <p>Using stepped-down lighting at lights off (in which lights at floor level are turned off first) can help to drive the hens up to the perch areas.</p>
7.	<p>All laying hens must have at least 250 cm² of littered area per hen, the litter occupying at least one-third of the ground surface and so that pecking and scratching are possible². The litter should be maintained in a friable condition and at an adequate depth for dustbathing, approximately 10 cm deep³.</p>	<p>Dustbathing and foraging (i.e. pecking and scratching) behaviours are highly motivated in laying hens, the thwarting of which can cause considerable frustration^{29;30}. Littered areas should be made available to hens as soon as possible after transfer from the rearing farm to reduce the chances of feather pecking developing³¹. See section 2 on ways to encourage foraging behaviour.</p> <p>Litter is to be 10 cm deep throughout the lifetime of the flock, topping up as necessary to maintain its depth and friability. It should be of small (e.g. < 1 cm²), loose particles (e.g. woodshavings, peat, sand, chopped straw) that hens can manipulate easily and toss into their plumage. Litter that is small enough to penetrate between feathers, and is absorbent and thus will remove excess feather lipid, is preferred by hens (i.e. sand, peat)³². Litter which is made up of larger particles can be used as a base layer, providing it will break down easily and is supplemented with a top layer of smaller particles.</p> <p>Where earthen floors are used, overlaying the floor with a damp-proof membrane before applying the litter will improve the chances of maintaining good litter quality.</p> <p>Litter quality can be affected by popholes in free range systems (see section 10 below).</p>

	Legislation and Interpretation	Good Practice
8.	<p>All animals must have access to feed...and to a suitable water supply².</p> <p>Feed should be provided in linear feeders providing at least 10 cm per hen or circular feeders providing at least 4 cm per hen².</p> <p>Water should be provided in drinking troughs providing 2.5 cm per hen or circular drinking troughs providing 1 cm per hen. Where nipple drinkers or drinking cups are used, there must be at least one nipple drinker or cup for every 10 hens².</p> <p>Linear feeders must be 10 cm of trough side per bird, provided that birds have access to both sides and that feeders are placed sufficiently far apart for birds to make full use of available space³.</p>	<p>Avoid contamination of feeders or drinkers with faecal material by ensuring that perches are not sited at angles which will result in droppings being deposited there. Where nipple drinkers with cups are used, smaller rather than larger cups will reduce the chance of faecal contamination.</p> <p>Care should be taken to ensure that drinker heights are comfortable for the birds to reach the water trough or nipple without having to stretch unduly.</p> <p>Current guidance on biosecurity and the prevention of avian influenza strongly discourages outdoor feeding and watering, because of the increased potential to attract wild birds and rodents. Providing food and/or water outdoors can also make it difficult to encourage birds back into the house.</p> <p>Novel feeder and drinker designs will be assessed by Scottish Government technical staff for compliance with the regulations¹².</p> <p>Monitoring feed and water consumption is a good guide of your flock's welfare. Note any drops in food or water consumption and investigate possible causes immediately.</p>
Where hens have access to multiple levels, then in addition:		
9.	<p>There must be no more than four levels; the headroom between levels must be at least 45 cm; drinking and feeding facilities must be distributed in such a way as to provide equal access to all hens; the levels must be arranged as to prevent droppings falling on the levels below².</p> <p>Multi-tier systems with perforated platforms should have droppings belts or trays beneath; perches must be positioned to minimise fouling of any hens below and, where possible, should be over a droppings pit; even where ladders are provided, nests, roosting areas, perches and platforms should not be so high above floor level that birds have difficulty in using them or risk injury³.</p>	<p>For installations >2 m in height, consider practical arrangements such as bird/stockman access to the highest levels. Staff must be able to access and inspect hens on all levels with ease. Likewise, hens must be able to negotiate all levels without difficulty and to find their way to the litter floor easily (see section 4 above).</p> <p>Provision of permanent ladders and access points up and down should be incorporated.</p> <p>Where new/novel house designs are being considered, consult with Scottish Government technical staff or your local SRUC consultant to ensure that any issues are raised at an early stage and can be discussed and addressed.</p>

Legislation and Interpretation	Good Practice
Where hens have access to range, then in addition:	
<p>10. There must be several popholes giving direct access to the outer area, at least 35 cm high x 40 cm wide and extending the entire length of the building. A total opening of 2 m must be available per group of 1000 hens. The area must be equipped with shelter from inclement weather and predators².</p> <p>Records that record rotation of grazing (including detailed maps of grazing locations and dates of rotation) must be maintained to prevent poaching and a build-up of parasites³.</p> <p>In addition, the egg marketing regulations require³³:</p> <ul style="list-style-type: none"> • continuous access to openair runs, except in the case of temporary restrictions imposed by veterinary authorities; <p>(Note EU Regulation 589/2008³⁴ states “..this requirement does not prevent a producer from restricting access for a limited period of time in the morning hours in accordance with usual good farming practice, including good animal husbandry practice.”)</p> <ul style="list-style-type: none"> • the range should be mainly covered with vegetation and not used for other purposes except for orchards, woodland and livestock grazing; • the range should not extend beyond a radius of 150 m from the nearest pop hole of the building (an extension of up to 350 m from the nearest pop hole of the building is permissible provided that there exists an even distribution of drinking troughs and shelters throughout the entire run, with at least 4 shelters per hectare); • the maximum stocking density of open-air runs must not be greater than 2500 hens/ hectare of ground available to the hens or one hen/4 m² at all times. However, where at least 10 m² per hen is available and where rotation is practised and hens are given even access to the whole area over the flock’s life, each paddock used must at any time assure at least 2.5 m² per hen. <p>Where verandas are used and included in the calculation of floor space, they must have the same artificial lighting system as the inner part of the unit. The popholes must meet the requirements of the legislation and continuous pophole access must be provided between the house and the veranda³.</p>	<p>Shelters provide protection from sun, wind and precipitation. Placing wind breaks on the range in front of the pop holes will increase the control of indoor temperature and promote good use of the range as birds can see a staging point. These should be placed 2-3 m away from the pop holes.</p> <p>Trees will be classified as shelters on the range area if they are sufficiently mature to provide natural shelter. Saplings in protective casings (e.g. making up a woodland setting) will not be classified as suitable shelters. Supplementary shelters must be provided until the trees are deemed sufficiently mature. Where woodland is used, sufficient thinning of trees and of lower branches should be performed regularly to allow light to penetrate the forest floor to promote growth of vegetation.</p> <p>Man-made shelters must be erected so that they do not move easily in poor weather, and constructed with a solid or impervious roof. Shelters must be of adequate size (e.g. ≥1 m² per 10 hens) to enable several hens to seek cover at once.</p> <p>Shelters should be provided in stages from the house to encourage birds to go outside (for example, at 2-5, 10 and 15 m from the house).</p> <p>See section 8 on providing food and/or water on range. In addition, allowing range areas to be grazed by other livestock may increase the risk of disease (e.g. erysipelas from pigs or sheep).</p> <p>Where grazing rotation is not possible, access to the entire range area required for the number of birds housed is mandatory.</p> <p>Exceptions to having pop-holes open are when advised to do so by a veterinarian or due to inclement weather. Inclement weather would be considered to be a combination of: outside temperature (with or without wind chill) of < 3° C, wind speeds ≥ 25 mph (i.e. 40 kph, gale force 6 or higher), snowing, rain falling continuously for 48 h, or the land is saturated (e.g. large pools of water on the range, not including the hard standing). Restricting the number of pop-holes being open may be acceptable to maintain house temperature and litter quality, but must be discussed with your Scottish Government technical advisor.</p> <p>With regard to restricting pop-hole access in the morning to maximise eggs laid in the nest boxes while maintaining free-range egg status, current guidance on the legal interpretation of the Regulation³⁴ is that restricting hen access to the range until the majority of eggs have been laid, i.e. generally NO LATER than 10:00, would be permissible. However, this would have to be balanced carefully with other effects on the hens, i.e. careful monitoring to ensure that outbreaks of feather pecking do not occur due to hens being thwarted from going outside outside.</p> <p>Likewise, daylight hours in Scotland in summertime can exceed 18 h of light, but a reasonable amount of access to range would be at least 12 h per day.</p> <p>Verandas are useful for providing open-air access while reducing exposure to sun, wind and precipitation, and can help maintain litter condition within the house. Their addition to non-cage housing systems is encouraged.</p>
<p>Where eggs are being produced as organic eggs, then³³: you must be registered with the Scottish Government Eggs and Poultry Unit: (http://www.scotland.gov.uk/Topics/farmingrural/Agriculture/Livestock/eggs/contacts) and one of the appointed UK organic certification bodies.</p>	

Enriched (furnished) cages



	Legislation and Interpretation	Good Practice
11.	<p>Laying hens must have at least 750 cm² of cage area per hen, 600 cm² of which shall be usable area².</p> <p>“Usable area” is defined as an area at least 30 cm wide with a floor slope not exceeding 14 % (i.e. 8°), with headroom of at least 45 cm. Nesting areas shall not be regarded as usable areas³⁵.</p> <p>The remaining cage area must have a height of > 20 cm, with no cage having a total area < 2000 cm²².</p>	<p>Further guidance on usable areas from AHVLA¹² state:</p> <ul style="list-style-type: none"> • Extended cage fronts do not count as usable area. • Areas that are not available at all times (such as ejector systems or gated areas) do not count as usable area. • Where sliding doors overlap the cage depth should be measured to the inside edge of the inner door. The overlap area does not count as usable area (Figure 2). • The scratch mat can be counted as usable area, as long as the height is 45 cm (minimum) and the mat is permanently accessible. If the scratch mat is above the nest box (and thus has a height less than 45 cm), then it would not count as usable area. • Feed troughs in the rear of an enriched cage with a rear partition (i.e. single depth) do not affect the usable area – i.e. the measurement can be taken to the rear partition, and the trough area included in the usable area. • Nipple lines or drip troughs below the nipples do not affect the usable area. • Perches cannot be regarded as additional usable area as the area below them is already included in the measurement.
12.	<p>Laying hens must have a nest. “Nest” means a separate space for egg laying, the floor components of which do not include wire mesh that can come into contact with the hen(s)².</p> <p>“Nest” should be understood as a suitable place where hens can quietly lay eggs, separately in the cage, without being irritated by other hens¹².</p> <p>Nests should be separated (i.e. using curtains) and have a different floor substrate from the rest of the cage³.</p>	<p>See section 5. In addition, a thin plastic coating to the wire mesh floor of nest boxes is not deemed adequate as the only nest flooring¹².</p> <p>The nest box must be partitioned from the rest of the cage by means of separators (e.g. curtains). These should be full-length to the nest box/cage floor at the sides, and with as small a gap as possible to the front in order to allow an egg to pass underneath (e.g. about 5 cm) (Figure 3).</p> <p>There is no minimum legal requirement for the amount of nest space per hen in furnished cages. However, too small a nest would not fulfil the behavioural needs of hens. The legislation for non-cage systems stipulates a requirement of 1 m² per 120 hens of nest space², and this could likewise be applied to cages for good practice, i. e. a minimum of 83 cm² per hen.</p>

	Legislation and Interpretation	Good Practice
13.	Laying hens must be provided with a feed trough which may be used without restriction, and its length must be at least 12 cm per hen ² .	<p>Feed trough space should be adequate to prevent competition when all hens are feeding (i.e. no hens are being displaced). Observe hens for competition at the feeders, and if you have any concerns, alert your local Scottish Government poultry advisor or veterinary officer¹².</p> <p>Further guidance from AHVLA on feed trough space¹² states:</p> <ul style="list-style-type: none"> • If an internal trough is designed and installed to provide feeding access simultaneously at both sides, this may be included in the calculation of feed trough space, providing that contamination of the feed is minimised (Figure 4). • If something obstructs access to the feed trough, then the distance of feed space from the edge of the obstruction must be deducted from the feed space, even if birds chose to reach over and feed past the obstruction. • It is not permitted for birds to access feed from within the nest area. Cage designs where a flexible or curtain sided nest area is sited directly in front of the feed trough, allowing birds to access the feed, do not meet legal requirements in terms of providing sufficient separation from the rest of the cage. • Where scratch areas are located in front of a feed delivery device that can also act as a feed trough, these areas can be counted as feed space providing that access is not restricted by anything other than birds using the scratch area.
14.	Each cage must have a drinking system appropriate to the size or group and where nipple drinkers are provided, at least two nipple drinkers or two cups must be within reach of each hen ² .	<p>The number of drinkers must be sufficient to allow hens to satisfy their fluid intake without generating competition. If there is evidence of increased competition for water, reduced water consumption or dehydration a veterinary opinion should be sought¹².</p> <p>Although furnished cage sizes (and thus the number of birds per cage) vary, often the number of nipples/cage does not increase proportionally. Good practice would suggest that to reduce competition, a ratio of 1 drinker:10 hens would be appropriate, as with non-cage systems².</p>

	Legislation and Interpretation	Good Practice
15.	Laying hens must have appropriate perches allowing at least 15 cm per hen, without sharp edges ² .	<p>Hens use perches for roosting, to reach resources, and to escape unwanted attention from other birds¹⁷⁻¹⁹. Raised perches can provide a comfortable resting place for hens. Hens in cages can further benefit from having perches, because they improve bone mineralisation³⁶.</p> <p>There are no legal requirements regarding the width or diameter of a perch. They should be appropriate for use and meet the physiological needs of hens, i.e. hens must be able to grip the perch and balance safely. They do not necessarily have to fully lock their claws around the perch¹² (Figure 5).</p> <p>See section 6 for details about acceptable widths and materials.</p> <p>Further guidance from AHVLA on perches¹² states:</p> <ul style="list-style-type: none"> • Perches must be sufficiently raised to enable hens to put their claws below the perch and there must be at least 20 cm head-room (height) above the perch. A feed pipe, for example that delivers mash to scratch mats down the centre of the cage, can be suitable as long as the height above the pipe is at least 20 cm. <ul style="list-style-type: none"> • If drinkers are positioned above a perch so that the distance from the perch to the drinker is < 20 cm, then this area of the perch does not count as perch space. • Where perches intersect, this area does not count because it is not usable. So where two perches overlap, you may only count one of the two perches fully, and the other perch from a point 15 cm from where the perches meet. • Where perches are supported from above, resulting in an area of perch < 15 cm on one side of the support, this MAY be considered perch space if birds can use it. If the area of perch < 15 cm is abutted by the cage wall, then this area WILL NOT be considered as part of the perch space, and must be deducted the calculated perch length available to the hens (Figure 6). • There is no requirement for how far apart perches must be in furnished cages, but if there is too little separation between perches that prevents birds from perching and it is considered that the birds' welfare is being compromised, a veterinary assessment should be made.

	Legislation and Interpretation	Good Practice
16.	Laying hens must have litter such that pecking and scratching are possible ² .	<p>In its opinion on enriched cages, FAWC states that “although a dust bath is not a requirement of the Laying Hen Directive³⁵, the ability to dust bathe is considered by many to be an important “normal” behaviour. Incomplete “sham” dust bathing has been observed in the scratching area but it was not possible to conclude whether the birds’ motivation to dust bathe was satisfied; deficiencies in the design of the scratching area and the lack of ample amounts of friable substrates may have denied the birds the opportunities to dust bathe”³⁷.</p> <p>Ensuring that the scratch mats are of ample size and are provided with scratch material at least once per day will enable hens to express some foraging and dustbathing behaviour. The size and number of scratch mats per cage, and amount of scratch material provided, should be such that all hens in the cage have a realistic chance of using them at some point.</p> <p>Further guidance from AHVLA on scratch mats¹² states:</p> <ul style="list-style-type: none"> • The scratch mat area can count as part of the usable area, depending on its design (see section 19). • The scratch mat may also be part of the “non-usable” space, i.e. above the nest box, as long as the minimum height of each of these is 20 cm.
17.	Cages must be fitted with suitable claw shortening devices ² .	<p>There is no legal requirement for the size or numbers of claw shorteners. Provision of “suitable claw shortening devices” should be assessed by the outcome for the birds.</p> <p>Some claw shortening devices may be more effective than others: research comparing different shortening devices in commercial furnished cages showed that perforating the entire baffle plate behind the feeders was more effective than attaching small abrasive strips³⁸ (Figure 7). You should take note of the condition of your hens’ claws and contact your local Scottish Government poultry advisor or veterinary officer if claws appear overgrown, broken, or too short.</p>
18.	There must be a minimum aisle width of 90 cm between tiers of cages and a space of at least 35 cm must be allowed between the floor of the building and the bottom tier of cages.	<p>The 90 cm gap between tiers should be measured from the outermost projection of the cages, e.g. feed trough edge³ or the egg belt.</p> <p>Further guidance from AHVLA on aisle widths and space between the floor and cages¹² states:</p> <ul style="list-style-type: none"> • There is no stipulation about distance between the cage bank and wall, however sufficient space must be available to facilitate inspection/installation and depopulation. • The distance between the floor and bottom tier of cages should be taken from the floor to the bottom of the usable area providing it allows for inspection/ installation and depopulation of hens. • Cat-walks and gantries are not mentioned in the Directive. Whilst the bottom tier must be 35 cm above the floor of the building, there is no requirement in the Directive for a 35 cm gap between tiers anywhere else. The inspector must be satisfied that the installation of a cat-walk/ gantry does not interfere with the ability to properly inspect/install/depopulate hens as per the requirements of the directive. <p>Top and bottom rows of cages are often the most difficult to inspect, so extra care must be taken to ensure that inspections here are thorough (see section 1).</p>

Figure 1 Examples of undesirable (A) and more desirable (B) perch designs in non-cage systems.



Figure 2 Overhead view of a cage, demonstrating how to measure the cage depth ('a') to calculate the usable area. Where door 1 and door 2 overlap, this area should not be included in the measurement of usable area.

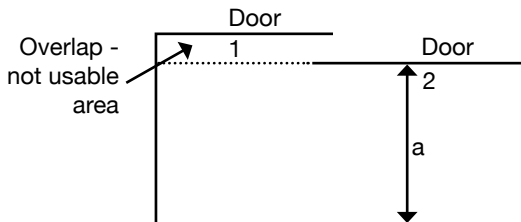


Figure 3 An example of nest box partitions which would not be classed as acceptable separation from the rest of the cage.



Figure 4 An internal feed trough in a furnished cage that could be counted as part of the feed trough space (note birds can feed from both sides).



Figure 5 Acceptable perches in furnished cages. Hens must be able to grip, although not necessarily fully lock, their claws around the perch. Therefore a perch with this profile (A) would be acceptable. Profiles that do not allow a bird to grip the perch would not be acceptable (B).

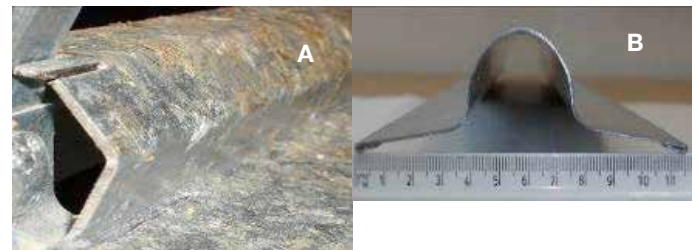


Figure 6 Measuring perch space where perch supports interfere with their use. In (A), the < 15 cm space cannot count as part of the perch space allowance, but in image (B) it may.

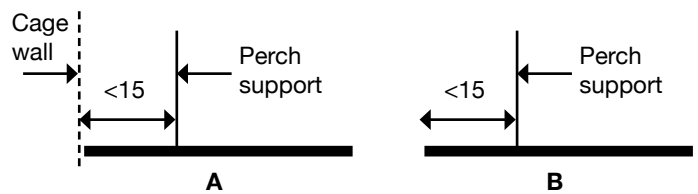
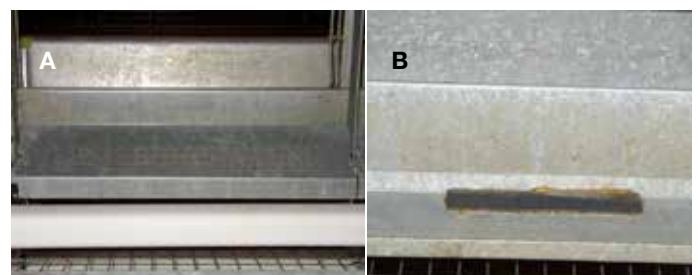


Figure 7 Claw shorteners using a perforated baffle plate (A) and an abrasive strip (B).



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