Code of Practice for the Welfare of Livestock:
Laying Hens
Draft for Consultation
Contents

Preface ................................................................................................................................. 1
Introduction ............................................................................................................................ 5
Code of Practice for the Welfare of Laying Hens ............................................................... 7
Stockmanship and Staffing ................................................................................................. 8
Rearing of Laying Hens ....................................................................................................... 9
Inspection .............................................................................................................................. 9
Treatment of Sick and Injured Hens .................................................................................. 10
Record Keeping .................................................................................................................. 11
Feed and Water ................................................................................................................... 12
Freedom of Movement ....................................................................................................... 14
Housing ............................................................................................................................... 14
Non-cage systems ............................................................................................................... 15
Enriched (Colony) Cages ................................................................................................... 17
Environment ....................................................................................................................... 18
Ventilation and Temperature ............................................................................................. 18
Light ................................................................................................................................... 18
Litter ...................................................................................................................................... 19
Noise ...................................................................................................................................... 20
Hens with access to open runs ........................................................................................... 20
Automatic or Mechanical Equipment ............................................................................... 21
Mutilations ......................................................................................................................... 22
Breeding Procedures .......................................................................................................... 23
Catching and Transport ..................................................................................................... 23

Appendix 1 – Legal Provisions for Eggs and Chicks ....................................................... 27
Appendix 2 – Guidance ....................................................................................................... 28
Appendix 3 – Feather Pecking ......................................................................................... 29
Preface

This preface is not part of the Code; instead, it explains the purpose of the code. The legal text in boxes throughout this document is also not part of the Code but highlights relevant legislation. The text in these boxes is the law as it stands on the date of publication or reprinting of the Code (please turn to the back cover for this information). You should be aware that any of the legal requirements quoted here could change. You should check that these are an accurate statement of the law as it currently stands.

Regulation 4 of the Welfare of Farmed Animals (Wales) Regulations 2007 (as amended)\(^1\) states that:

(1) A person responsible for a farmed animal must take all reasonable steps to ensure that the conditions under which it is bred or kept comply with Schedule 1.

(2) In complying with the duty in paragraph (1), a person responsible for a farmed animal must have regard to its—

   (a) species;
   (b) degree of development;
   (c) adaptation and domestication; and
   (d) physiological and ethological needs in accordance with good practice and scientific knowledge.

Regulation 6 of the Welfare of Farmed Animals (Wales) Regulations 2007 (as amended) states that:

(1) A person responsible for a farmed animal—

   (a) must not attend to the animal unless he is acquainted with any relevant code of practice and has access to the code while attending to the animal; and

   (b) must take all reasonable steps to ensure that a person employed or engaged by him does not attend to the animal unless that other person—

   (i) is acquainted with any relevant code of practice;
   (ii) has access to the code while attending to the animal; and
   (iii) has received instruction and guidance on the code.

(2) In this section, a “relevant code of practice” means a code of practice issued under section 14 of the Animal Welfare Act 2006 or a statutory welfare code issued under section 3 of the Agriculture (Miscellaneous Provisions) Act 1968 relating to the particular species of farmed animal to which a person is attending.

To cause unnecessary suffering to an animal under the control of man is an offence under the Animal Welfare Act 2006. Although it is not a legal requirement to follow a code, failure to do so may be used as evidence when someone is being prosecuted for causing unnecessary pain to livestock.

Section 9(1) of the Animal Welfare Act 2006\(^2\) states that:

A person commits an offence if he does not take such steps as are reasonable in all the circumstances to ensure that the needs of an animal for which he is responsible are met to the extent required by good practice.

Section 9(2) of the Animal Welfare Act 2006 states that:

\(^1\) Welfare of Farmed Animals (Wales) Regulations 2007 (as amended)

\(^2\) Animal Welfare Act 2006
For the purposes of this Act, an animal’s needs shall be taken to include -

(a) its need for a suitable environment,
(b) its need for a suitable diet,
(c) its need to be able to exhibit normal behaviour patterns,
(d) any need it has to be housed with, or apart from, other animals, and
(e) its need to be protected from pain, suffering, injury and disease.

Section 10 of the Animal Welfare Act 2006 states that:

(1) If an inspector is of the opinion that a person is failing to comply with section 9(1), he may serve on the person a notice which –

(a) states that he is of that opinion,
(b) specifies the respects in which he considers the person is failing to comply with that provision,
(c) specifies the steps he considers need to be taken in order to comply with the provision,
(d) specifies a period for the taking of those steps, and
(e) explains the effect of subsections (2) and (3).

(2) Where a notice under subsection (1) (“an improvement notice”) is served, no proceedings for an offence under section 9(1) may be instituted before the end of the period specified for the purposes of subsection (1)(d) (“the compliance period”) in respect of –

(a) the non-compliance which gave rise to the notice, or
(b) any continuation of that non-compliance.

(3) If the steps specified in an improvement notice are taken at any time before the end of the compliance period, no proceedings for an offence under section 9(1) may be instituted in respect of –

(a) the non-compliance which gave rise to the notice, or
(b) any continuation of that non-compliance prior to the taking of the steps specified in the notice.

(4) An inspector may extend, or further extend, the compliance period specified in an improvement notice.

The requirements of Council Directive 1999/74/EC do not apply to establishments with fewer than 350 laying hens or establishments rearing breeding laying hens. Such establishments shall, however, continue to be subject to the relevant requirements of Council Directive 98/59/EC.

During on-farm welfare inspections carried out by the Animal and Plant Health Agency (APHA) and Local Authorities, inspectors will assess compliance against legislation and the Code. Not complying with the welfare-related legislation outlined in the boxes throughout the Code is an offence. In cases that go to court for
prosecution, meeting the requirements of the Code, or not, can be used to help establish a person’s liability.

There may be other legislation and requirements not related to welfare and not outlined in the Code but that you must be familiar with and comply with.

Section 4 of the Animal Welfare Act 2006 states:

4 (1) A person commits an offence if—
   (a) an act of his, or a failure of his to act, causes an animal to suffer,
   (b) he knew, or ought reasonably to have known, that the act, or failure to act, would have that effect or be likely to do so,
   (c) the animal is a protected animal, and
   (d) the suffering is unnecessary.

(2) A person commits an offence if—
   (a) he is responsible for an animal,
   (b) an act, or failure to act, of another person causes the animal to suffer,
   (c) he permitted that to happen or failed to take such steps (whether by way of supervising the other person or otherwise) as were reasonable in all the circumstances to prevent that happening, and
   (d) the suffering is unnecessary.

(3) The considerations to which it is relevant to have regard when determining for the purposes of this section whether suffering is unnecessary include—
   (a) whether the suffering could reasonably have been avoided or reduced;
   (b) whether the conduct which caused the suffering was in compliance with any relevant enactment or any relevant provisions of a licence or code of practice issued under an enactment;
   (c) whether the conduct which caused the suffering was for a legitimate purpose, such as—
      (i) the purpose of benefiting the animal, or
      (ii) the purpose of protecting a person, property or another animal;
   (d) whether the suffering was proportionate to the purpose of the conduct concerned;
   (e) whether the conduct concerned was in all the circumstances that of a reasonably competent and humane person.

(4) Nothing in this section applies to the destruction of an animal in an appropriate and humane manner.
Introduction

1. This Code is intended to encourage all those who care for laying hens to adopt high standards of husbandry. Without good stockmanship, animal welfare can never adequately be protected. Adherence to these recommendations will help keepers to maintain the standards required to comply with legislation.

Those who have care for chickens should demonstrate:

- Caring and responsible planning and management;
- Skilled, knowledgeable and conscientious stockmanship;
- Appropriate environmental design;
- Considerate handling and transport; and humane slaughter.

2. The welfare of laying hens is considered within a framework that was developed by the Farm Animal Welfare Council (FAWC) and known as the “Five Freedoms”. These form the guiding principles for the assessment of welfare within any system, together with the actions necessary to safeguard welfare within the constraints of an efficient livestock industry. The Five Freedoms should be considered in conjunction with FAWC’s three essentials of stockmanship.

The Five Freedoms are:

1. **FREEDOM FROM HUNGER AND THIRST** – by ready access to fresh water and a diet to maintain full health and vigour;
2. **FREEDOM FROM DISCOMFORT** – by providing an appropriate environment including shelter and a comfortable resting area;
3. **FREEDOM FROM PAIN, INJURY OR DISEASE** – by prevention or rapid diagnosis and treatment;
4. **FREEDOM TO EXPRESS NORMAL BEHAVIOUR** – by providing sufficient space, proper facilities and company of the animals’ own kind; and
5. **FREEDOM FROM FEAR AND DISTRESS** – by ensuring conditions and treatment to avoid mental suffering.

The Three Essentials of Stockmanship are:

1. **KNOWLEDGE OF ANIMAL HUSBANDRY**. Sound knowledge of the biology and husbandry of farm animals, including how their needs may be best provided for in all circumstances.
2. **SKILLS IN ANIMAL HUSBANDRY**. Demonstrable skills in observation, handling, care and treatment of animals, and problem detection and resolution.
3. **PERSONAL QUALITIES**. Affinity and empathy with animals, dedication and patience.

3. No person should operate or set up a laying hen unit unless the welfare of all the birds can be safeguarded. This can be achieved by ensuring that the buildings
and equipment, and the skills and ability of the flock-keeper, are appropriate to
the husbandry system and the number of birds to be kept.

4. The relevant animal welfare legislation applies to owners as well as any person
looking after the chickens on their behalf, wherever the chickens are located. A
written protocol can be of value in ensuring that all parties are clear about their
responsibilities in respect of welfare. However, the obligations imposed by the
law will still apply.

5. Welfare and health considerations, in addition to productivity, should be taken
into account when choosing a strain for a particular purpose or production
system. Laying hens should stem from balanced breeding programmes, which
consider all aspects of health, welfare and productivity. Management decisions
and the production system should be optimised to promote chicken health,
welfare and productivity.

6. Legal requirements are highlighted in text boxes. This Code applies in Wales
only and has been issued by the National Assembly for Wales.
Code of Practice for the Welfare of Laying Hens

7. This code (which applies to Wales only) applies to laying hens kept in various production systems. For the purposes of this code, “flock-keeper” means the owner of the birds and the person responsible for looking after them. The recommendations are relevant to laying hens in all types of husbandry systems.

8. The strain of laying hen selected must be suitable for the production system.

Schedules 2, 4 and 5 of The Welfare of Farmed Animals (Wales) Regulations 2007 lay down additional standards for the protection of laying hens.

This does not apply to establishments with fewer than 350 laying hens.

Such establishments shall, however, continue to be subject to the relevant requirements of Directive 98/58/EC, which has been implemented in Wales by Schedule 1 of The Welfare of Farmed Animals (Wales) Regulations 2007.

Regulation 2(1) of The Welfare of Farmed Animals (Wales) Regulations 2007 provides the following definitions:

“laying hen” (“iâr ddodwy”) means a hen of the species Gallus gallus which has reached laying maturity and is kept for production of eggs not intended for hatching;

“litter” (“llaesodr”) means, in relation to laying hens, any friable material enabling those birds to satisfy their ethological needs;

“nest” (“nyth”) means a separate space for egg laying, the floor component of which may not include wire mesh that can come into contact with the birds, for an individual hen or for a group of hens;

“usable area” (“lle y gellir ei ddefnyddio”) means, in relation to laying hens, an area, other than that taken up by a nest, used by laying hens which is at least 30cm wide with a floor slope not exceeding 14% and with headroom of at least 45cm.
Stockmanship and Staffing

Paragraph 1 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

1. Animals shall be cared for by a sufficient number of staff who possess the appropriate ability, knowledge and professional competence.

9. It is essential that sufficient, well-motivated, and competent personnel are employed to carry out all necessary tasks. Staff should be well managed and supervised, fully conversant with the tasks they will be required to undertake and competent in the use of any equipment.

10. All flock-keepers should demonstrate full understanding of the welfare needs and basic biology of the hens and show they are capable of safeguarding them under all foreseeable conditions before being given responsibility for a flock. A good flock-keeper will have a compassionate and humane attitude, will be able to anticipate and avoid many potential welfare problems, and have the ability to identify those that do occur and respond to them promptly.

11. Staff, including those employed by contractors, should be given appropriate training. This requires the acquisition of specific stockmanship skills which may be developed on-farm, working with an experienced person, or by following a course offered by a suitable training provider. Flock-keepers should demonstrate competence and understanding before they are given responsibility for the laying hens. Training should continue throughout the duration of the employment, and suitable refresher courses should be undertaken regularly to maintain competence. Wherever possible, the training should be of a type which leads to formal recognition of competence.

12. Those working with laying hens should recognise not only normal behaviour and good health but also signs of illness or disease or impending health problems.

13. Where specialised tasks are to be performed, for example medication or humane culling, specific training should be given. Alternatively, the services of a contractor using competent trained staff should be obtained.

14. Staff should establish a methodical routine in completing the range of tasks involved in keeping laying hens. As part of this they should be particularly vigilant in checking that systems are operating properly and laying hens are behaving normally. This will enable flock-keepers to detect problems in their earliest stages and acquire a good understanding of the action to be taken if a problem is noticed. If the cause is not obvious, or if the flock-keeper’s action is not effective, immediate veterinary or technical advice should be obtained.

15. It is essential to ensure enough time is available within the flock-keeper’s daily routine for laying hens to be properly inspected and for any remedial action to be taken. The flock-keeper should have adequate knowledge of the husbandry system used to be able to appreciate the suitability of the total environment for the laying hen’s health and welfare.
Rearing of Laying Hens

16. Laying hens while being reared should be given, where possible, appropriate experience of management practices (e.g. particular feeding and watering systems) and environmental conditions (e.g. natural light, perches, litter, range, enrichment items) to enable them to adapt to the husbandry systems which they will encounter later in life. Liaison between rearers and producers during the rearing phase can help to ensure conditions during rearing and while in lay are as closely matched as possible.

17. To alleviate fear responses and possible injury, birds should be handled in a careful, positive and compassionate manner from an early age. Inspections should be slow, deliberate and frequent to get birds used to stock-keeper presence.

Inspection

Paragraph 2-3 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 requires that:

2.- (1) Subject to sub-paragraph (3), animals kept in husbandry systems in which their welfare depends on frequent human attention must be thoroughly inspected at least once a day to check that they are in a state of well-being.

(2) Subject to sub-paragraph (3), animals kept in husbandry systems in which their welfare does not depend on frequent human attention must be inspected at intervals sufficient to avoid any suffering.

3. Where animals are kept in a building, adequate lighting (whether fixed or portable) must be available to enable them to be thoroughly inspected at any time.

Paragraph 6 of Schedule 5 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

6. Accommodation comprising two or more tiers of cages must have devices, or appropriate measures must be taken, to allow inspection of all tiers without difficulty and to facilitate the removal of hens.

18. A thorough inspection should take place at least once a day. Such inspections should be made independently of any automatic surveillance equipment. This inspection should be sufficiently thorough to detect illness and injury of individual hens and thus should include an inspection of nest boxes where ailing hens may seek refuge. Attention should be paid to the presence of external parasites, to the condition of droppings, to feed and water consumption, to growth and to egg production level. Aspects of the physical environment such as litter condition and air quality should be monitored.

19. Individual examination should be made of those hens for which the overall inspection indicates this to be necessary. Where appropriate the hens should be
encouraged to walk. A healthy hen should make sounds and carry out activity appropriate to its age, breed or type, have clear bright eyes, good posture, clean healthy skin, good feather condition, well formed shanks and feet, effective walking and active feeding and drinking behaviour.

20. The early signs of ill-health may include changes in food and water intake, in preening, in ‘chatter’ and in activity. There may also be a drop in egg production and changes in egg quality such as shell defects.

21. Housing and equipment must be designed so that all the laying hens can be clearly seen. Supplementary lighting may be needed for the inspection of hens in the bottom tier of enriched cage systems.

**Treatment of Sick and Injured Hens**

Paragraphs 5-6 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 states:

5. Any animals which appear to be ill or injured must be cared for appropriately and without delay; where they do not respond to such care, veterinary advice must be obtained as soon as possible.

6. Where necessary, sick or injured animals must be isolated in suitable accommodation with, where appropriate, dry comfortable bedding.

Paragraph 4 of Schedule 5 of the Welfare of Farmed Animals (Wales) Regulations 2007, states that:

4.- (1) Those parts of buildings, equipment or utensils which are in contact with the hens must be thoroughly cleaned and disinfected regularly and, in any case, every time depopulation is carried out and before a new batch of hens is brought in.

(2) While the cages are occupied-
(a) the surfaces and all equipment must be kept satisfactorily clean;
(b) droppings must be removed; and
(c) dead hens must be removed every day.

22. A health and welfare plan should be implemented for each unit which sets out health and husbandry activities. It should establish management procedures and control measures to reduce the risk of infections and injury. The health and welfare plan should be developed with appropriate veterinary advice, reviewed against performance and updated accordingly.

23. Where there are signs of ill health, or behavioural alterations within the flock, the flock-keeper should take steps without delay to establish the cause and take appropriate remedial action. If the immediate action taken by the flock-keeper is not effective a veterinarian must be consulted and, if necessary, expert advice must be sought on other technical factors involved. Where there are signs of recurring injuries which may be related to the environment, these must be
investigated and rectified as soon as possible to prevent further damage to the hens.

24. Injured, sick or distressed hens must be treated without delay and if necessary separated from the rest of the flock in suitable accommodation available for this purpose, or killed in accordance with the The Welfare of Animals at the Time of Killing (Wales) Regulations 2014. Dead hens must appropriately stored and/or disposed of promptly.

25. If disease or evidence of a behavioural problem becomes apparent through observation, expert qualified advice should be sought and the problem dealt with promptly. Stocking and ventilation rates should be checked and variations in stocking and ventilation should be considered in order to minimise the likelihood of recurrence of the problem.

Record Keeping

Paragraphs 7 and 8 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

7. A record must be maintained of:
   (a) any medicinal treatment given to animals, and
   (b) the number of mortalities found on each inspection of animals-
      (i) in the case of laying hens, Paragraph 1 of Schedule 5 set out in the Welfare of Farmed Animals (Wales) Regulations 2007, states that all hens must be inspected by the owner or the person responsible for the hens at least once a day.

8. The record referred to in paragraph 7 must be retained for a period of at least three years from the date on which the medicinal treatment was given, or the date of the inspection, and must be made available to an inspector on request.

26. Records are an essential aid to management; the records kept should include feed and water consumption, egg quality, health and welfare checks, behavioural abnormalities, air temperatures and ammonia levels.

27. Mortality, culling and, if possible, morbidity levels should be closely monitored. Autopsies should be carried out by a trained person or veterinary surgeon in cases where mortality levels are significant or higher than expected. Records should be kept of all these results.
Feed and Water

Paragraphs 22-27 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007, on feed, water and other substances state that:

22. Animals must be fed a wholesome diet which is appropriate to their age and species and which is fed to them in sufficient quantity to maintain them in good health, to satisfy their nutritional needs and to promote a positive state of well-being.

23. Animals must not be provided with food or liquid that contains any substance that may cause them unnecessary suffering or injury and must be provided with food and liquid in a manner that does not cause them unnecessary suffering or injury.

24. All animals must have access to feed at intervals appropriate to their physiological needs (and, in any case, at least once a day), except where a veterinary surgeon acting in the exercise of his or her profession otherwise directs.

25. All animals must either have access to a suitable water supply and be provided with an adequate supply of fresh drinking water each day, or be able to satisfy their fluid intake needs by other means.

26. Feeding and watering equipment must be designed, constructed, placed and maintained so that contamination of food or water and the harmful effects of competition between animals are minimised.

27.(1) No other substance, with the exception of those given for therapeutic or prophylactic purposes or for the purpose of zootechnical treatment, may be administered to animals unless it has been demonstrated by scientific studies of animal welfare or established practice that the effect of that substance is not detrimental to the health or welfare of the animals.

(2) In sub-paragraph (1), "zootechnical treatment" ("triniaeth söotechnegol") has the meaning given in Article 1(2)(c) of Directive 96/22/EEC(1) concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and of beta-agonists.

Paragraphs 2(a) and (b) of Schedule 2 of the The Welfare of Farmed Animals (Wales) Regulations 2007, on additional conditions that apply to the keeping of laying hens in non-cage systems, state that:

2. All systems must be equipped in such a way that all laying hens have-

(a) linear feeders providing at least 10cm per bird or circular feeders providing at least 4cm per bird;

(b) continuous drinking troughs providing at least 2.5 cm per hen or circular drinking troughs providing at least 1 cm per hen;

In addition Paragraphs 3 and 4 state that:

3. Where a system is equipped with nipple drinkers or cups, there must be at least one nipple drinker or cup for every 10 hens.

4. Where a system has drinking points plumbed in, at least two cups or two nipple drinkers must be within reach of each hen.
28. Feed and water must be readily accessible to all hens.

29. Feeding and watering equipment should be designed, constructed, placed, operated and maintained in such a way that:
   - it minimises spillage or contamination of feed and water;
   - all laying hens have sufficient access to water;
   - it does not cause or result in injury to hens;
   - it operates in all weather conditions;
   - the consumption of water and feed can be monitored.

   In addition, all equipment must be able to be easily cleaned and disinfected.

30. Feeder space allocation should be sufficient to enable laying hens to obtain adequate feed with minimum competition. If feed is not provided continuously, additional trough space may be needed to allow all hens to eat at the same time.

31. Sudden changes in the type or quantity of feed and feeding procedures, other than those appropriate to the physiological needs of the laying hens, should be avoided except in case of emergency.

32. Systems which call for the complete withholding of feed and water on any day must not be adopted. In no circumstances may hens be induced to moult by withholding feed and water. However, feed, but not water, may be withheld for up to 12 hours prior to slaughter. This period of 12 hours must be an inclusive period to include the catching, loading, and transport, lairaging and unloading time prior to slaughter.

33. Stale or contaminated feed or water should not be allowed to accumulate and should be replaced immediately. Precautions must be taken to minimise the risk of drinking water freezing.

34. A small amount of whole grain may be scattered over the litter each day to encourage foraging and scratching and reduce the possibility of feather pecking outbreaks.

35. Regular access to insoluble grit from an early age helps to develop the digestive system and aids good digestion throughout the birds' lives.

36. Arrangements should be made in advance to ensure that adequate supplies of suitable feed and water can be made available in emergencies such as interruptions in power supplies, or when water freezes.

37. Body condition, body weight and egg quality and production should be used to monitor the effectiveness of the feeding regime.
Freedom of Movement

Paragraphs 9 and 10 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 state:

9. The freedom of movement of animals, having regard to their species and in accordance with good practice and scientific knowledge, must not be restricted in such a way as to cause them unnecessary suffering or injury.

10. Where animals are continuously or regularly confined, they must be given the space appropriate to their physiological and ethological needs in accordance with good practice and scientific knowledge.

Paragraph 8 of Schedule 2 of The Welfare of Farmed Animals (Wales) Regulations 2007, on additional conditions that apply to the keeping of laying hens in non-cage systems) states that:

8. The stocking density must not exceed nine laying hens per m² of usable area.

38. When determining the stocking density, consideration should be given to the breed of laying hen, system of housing, colony size, temperature, ventilation and lighting, as well as to the number of platforms, perches or other suitable installations available in the third dimension.

Housing

Paragraphs 11-12 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 state:

11. Materials used for the construction of accommodation, and in particular for the construction of pens, cages, stalls and equipment with which the animals may come into contact, must not be harmful to them and must be capable of being thoroughly cleaned and disinfected.

12. Accommodation and fittings for securing animals must be constructed and maintained so that there are no sharp edges or protrusions likely to cause injury to them.

Paragraph 5 of Schedule 5 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

5. Cages must be suitably equipped to prevent hens escaping.

Paragraph 7 of Schedule 5, of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

7. The design and dimensions of the cage door must be such that an adult hen can be removed without undergoing unnecessary suffering or sustaining injury.
39. The design, construction and maintenance of enclosures, buildings and equipment for laying hens should:

- Allow the fulfilment of essential biological needs and the maintenance of good health;
- facilitate good management of the hens;
- allow for easy maintenance of good conditions of hygiene and air quality;
- provide shelter from adverse weather conditions;
- limit the risk of disease, disorders manifested by behavioural changes, traumatic injuries to the hens, injuries caused by hens to each other and, as far as possible, contamination of the hens by droppings;
- exclude predators, rodents, and wild animals and minimise insects;
- allow for the prevention and treatment of infestations of internal and external parasites;
- incorporate damp-proof membranes to prevent insulation breakdown, and measures to prevent easy access by vermin to the insulation material;
- provide sufficient suitable lighting to enable normal behaviour.

40. Measures should be put in place for contingency planning following an assessment of possible hazards. Contingency plans should deal with events such as the disruption of feed, power or water supply; heat stress; natural disasters such as floods and fires; arrangements for dealing with restrictions placed in case of notifiable disease and the compulsory temporary housing of free-range birds. Plans should also include arrangements for both killing and disposal of flocks when depopulation is required in the event of notifiable disease or due to contamination of feed or pasture with toxins.

41. Where laying hens are housed, floors, perches and platforms should be of a suitable design and material so they do not cause hens discomfort, distress or injury. They must provide sufficient support, particularly for the forward facing claws of each foot; moreover, perches should be of sufficient length to allow all hens to roost at the same time. Floors, perches and platforms should be kept sufficiently dry and clean.

42. Hens should be kept in such a way that they can keep themselves clean.

43. Ventilation, heating, lighting, feeding, watering and all other equipment should be designed, sited and installed so as to avoid risk of injuring hens.

**Non-cage systems**

Paragraphs 2(c), (d) and (e), 5 and 6 of Schedule 2 in The Welfare of Farmed Animals (Wales) Regulations 2007, on additional conditions that apply to the keeping of laying hens in non-cage systems, state that:
2. All systems must be equipped in such a way that all laying hens have-

(a) linear feeders providing at least 10cm per bird or circular feeders providing at least 4cm per bird;

(b) continuous drinking troughs providing at least 2.5 cm per hen or circular drinking troughs providing at least 1 cm per hen;

(c) at least one nest for every seven hens and, if group nests are used, there must be at least 1 m² of nest space for a maximum of 120 hens;

(d) perches without sharp edges and providing at least 15 cm per hen, which must not be mounted above the litter, and the horizontal distance between perches must be at least 30 cm and the horizontal distance between the perch and the wall must be at least 20 cm; and

(e) at least 250 cm² of littered area per hen, the litter occupying at least one third of the ground surface.

5. The floors of installations must be constructed so as to support each of the forward-facing claws of each bird's foot.

6. If systems are used where the laying hens can move freely between different levels-

(a) there must be no more than four levels;

(b) the headroom between the levels must be at least 45 cm;

(c) the drinking and feeding facilities must be distributed in such a way as to provide equal access for all hens; and

(d) the levels must be so arranged as to prevent droppings falling on the levels below.

44. The usable area may be made up of the ground surface of the building where accessible to the hens and any additional raised areas or platforms at least 30cm wide, including perforated floors provided that arrangements are in place to prevent fouling of hens below.

45. Nests should be provided with a floor substrate, which encourages nesting behaviour. This is especially important at the start of lay, when the provision of loose litter may be used to encourage pullets to use the nests. Individual nests should be designed to accommodate only one hen at a time. Communal nests should be designed using divisions and suitable access points to minimise overcrowding.

46. Where nest floors are made of wire mesh this must be overlain by another material such as straw or plastic which prevents hens’ feet coming into contact with wire mesh.
47. Only perches at 30cm or more apart should be calculated as part of the perching space.

48. Multi-tier systems with perforated platforms should have dropping belts or trays beneath. Perches must be positioned to minimise fouling of any hens perched below and prevent droppings falling in drinking and feeding facilities.

49. Even where ramps or platforms and/or alighting rails are provided, nests, roosting areas, perches and tiers should not be so high above floor level that birds have difficulty in using them or risk injury in trying to do so. However, perches should be of sufficient height to prevent feather pecking from active hens on the ground.

**Enriched (Colony) Cages**

Paragraphs 1-6 of Schedule 4, Regulation 5, of The Welfare of Farmed Animals (Wales) Regulations 2007, additional conditions that apply to the keeping of laying hens in enriched cages, state that:

1. All laying hens not kept in a non-cage system referred to in Schedule 2 or a cage system referred to in Schedule 3 must be kept in an enriched cage system which complies with the requirements of this Schedule.

2. Laying hens must have-
   
   (a) at least 750 cm² of cage area per hen, 600 cm² of which must be usable; the height of the cage other than that above the usable area must be at least 20 cm at every point and the minimum total area for any cage must be 2000 cm²;

   (b) access to a nest;

   (c) litter such that pecking and scratching are possible; and

   (d) appropriate perches allowing at least 15 cm per hen.

3. A feed trough which can be used without restriction must be provided, the length of which must be at least 12 cm multiplied by the number of hens in the cage.

4. Each cage must have a drinking system appropriate to the size of the group; where nipple drinkers are provided, at least two nipple drinkers or two cups must be within reach of each hen.

5. To facilitate inspection, installation and depopulation of hens 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.

6. Cages must be fitted with suitable claw-shortening devices.

Paragraph 2(d) of Article 2 of Council Directive 1999/74/EC, laying down minimum standards for the protection of laying hens, specifies a cage height of the usable area of at least 45cm.

---

The Egg Marketing Standards regarding "free range eggs" should also be referred to (see Appendix 1).

50. If there is evidence that claws of hens are found to be overgrown or broken then the provision of claw shortening devices should be enhanced. Excessively abrasive devices may cause injury so caution should be exercised when using such devices.

51. The aisle width should be measured as the unobstructed width between the outer edges of the feed troughs. The distance to the floor should be measured to the mesh base of the cage.

52. Nests should be secluded and draft free.

Environment

Ventilation and Temperature

Paragraph 13 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

13. Air circulation, dust levels, temperature, relative air humidity and gas concentrations must be kept within limits which are not harmful to the animals.

53. Provision of insulation and ventilation should be designed to avoid heat and cold stress. Particular care should be taken to protect hens vulnerable to cold stress, such as those in confined spaces or with feather loss, from draughts in cold conditions.

54. Hens should not be exposed to strong direct sunlight or hot surroundings long enough to cause heat stress as indicated by prolonged panting.

55. The ventilation system, and facilities for storing and handling litter and manure should be designed, maintained and managed to prevent the exposure of hens to gases such as ammonia, hydrogen sulphide, carbon dioxide or carbon monoxide in concentrations which cause discomfort to the hens or which are detrimental to their health.

Light

Paragraphs 14-16 of Schedule 1 of The Welfare of Farmed Animals (Wales) Regulations 2007 state that:

14. Animals kept in buildings must not be kept in permanent darkness.

15. Where the natural light available in a building is insufficient to meet the physiological or ethological needs of any animals being kept in it, appropriate artificial lighting must be provided.
16. Animals kept in buildings must not be kept without an appropriate period of rest from artificial lighting.

Paragraph 3 of Schedule 5 of The Welfare of Farmed Animals (Wales) Regulations 2007 states that:

3.-(1) All buildings must have light levels sufficient to allow hens to see other hens and be seen clearly, to investigate their surroundings visually and to show normal levels of activity.

(2) Where there is natural light, light apertures must be arranged in such a way that light is distributed evenly within the accommodation.

(3) After the first days of conditioning, the lighting regime must be such as to prevent health and behavioural problems and accordingly it must follow a 24-hour rhythm and include an adequate uninterrupted period of darkness lasting, by way of indication, about one third of the day.

(4) A period of twilight of sufficient duration should if possible be provided when the light is dimmed so that the hens may settle down without disturbance or injury.

56. In normal conditions, in all systems, light intensity should be at least five lux, and preferably not less than 10 lux, measured at any feed trough level; in non-cage systems, light intensity in the perching, walking and feeding areas should be at least 10 lux measured at hen eye height. However, a reduction in lighting level may assist in addressing behavioural problems such as injurious feather pecking or cannibalism.

57. In all houses, especially those with natural light, measures should be taken to ensure that light distribution is as even as possible.

58. A period of twilight should be provided to give laying hens time to roost.

Litter

Paragraph 2(e) of Schedule 2 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that all systems must be equipped in such a way that all laying hens have:

(e) at least 250 cm² of littered area per hen, the litter occupying at least one third of the ground surface.

Paragraph 2(c) of Schedule 4 of The Welfare of Farmed Animals (Wales) Regulations 2007, on additional conditions that apply to the keeping of laying hens in enriched cages, states that laying hens must have:

(c) litter such that pecking and scratching are possible.

59. In non-cage systems, all hens should have access to a littered area, which should be maintained in a friable condition and at an adequate depth for dust bathing (approximately 10 cm). To ensure good litter management, this depth of litter may be made up over the first two months of use. Hens should have access
to good quality substrate to allow expression of natural behaviours, including dust-bathing and scratching, and to prevent health and welfare problems.

60. Mouldy litter should not be used. There should be frequent checks to ensure that litter does not become infested with organisms which may be harmful to laying hens.

Noise

Paragraph 2 of Schedule 5 of The Welfare of Farmed Animals (Wales) Regulations 2007 states that:

2. In all systems in which laying hens are kept-
(a) the sound level must be minimised;
(b) constant or sudden noise must be avoided; and
(c) ventilation fans, feeding machinery and other equipment must be constructed, placed, operated and maintained in such a way that they cause the least possible noise.

Hens with access to open runs

Paragraph 17 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 states that:

17. Animals not kept in buildings must, where necessary and possible, be given protection from adverse weather conditions, predators and risks to their health and must, at all times, have access to a well-drained lying area.

Paragraphs 7 (a) and (b) of Schedule 2 of The Welfare of Farmed Animals (Wales) Regulations 2007, on additional conditions that apply to the keeping of laying hens in non-cage systems, states that:

7. If laying hens have access to open runs -
(a) there must be several popholes giving direct access to the outer area, at least 35 cm high and 40 cm wide, and extending along the entire length of the building; and in any case, a total opening of 2 m must be available per group of 1,000 hens; and
(b) the open runs must be-
(i) of an area appropriate to the stocking density and to the nature of the ground, in order to prevent any contamination; and
(ii) equipped with shelter from adverse weather conditions and predators and, if necessary, drinking troughs.

The Egg Marketing Standards regarding "free range eggs" should also be referred to (see Appendix 1).
61. Where laying hens are kept extensively and are free to range it is important to provide overhead shelter to give protection from sun, wind and rain and to encourage birds to utilise the range. Windbreaks should be provided on exposed sites. Reasonable precautions should be taken to protect hens against predators.

62. Housing used by range hens should be of sufficient standard to ensure that they are not subject to distress caused by extremes of temperature.

63. Factors such as soil type, drainage, size of colony and frequency of flock rotation are very important in deciding the number of laying hens that a particular area can carry. Heavy, poorly drained soil can carry fewer hens than land that is light and well drained.

64. Flocks and portable houses should be moved with sufficient regularity to avoid continuously muddy conditions and/or contamination of the land with organisms which cause or carry disease to an extent which could seriously prejudice the health of poultry. If houses cannot be moved frequently it is good practice to protect the ground immediately adjacent to it, e.g. by providing slatted or wire mesh platforms, covered verandas or areas of gravel.

65. Laying hens should be encouraged to use outdoor areas through the provision of suitable, properly managed vegetation, outdoor scratch and overhead cover, all sufficiently far from the house to encourage ranging.

66. When laying hens are transferred to range houses, precautions should be taken to avoid crowding and suffocation, particularly during the first few nights.

67. Where the area within a veranda attached to a free range house is included in the calculation of floor space, the pop holes must meet the legal requirements and continuous access pop hole must be provided between the house and the veranda.

**Automatic or Mechanical Equipment**

Paragraphs 18-21 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 state that:

18. All automated or mechanical equipment essential for the health and well-being of the animals must be inspected at least once a day to check that there is no defect in it.

19. Where defects in automated or mechanical equipment of the type referred to in paragraph 18 are discovered, these must be rectified immediately or, if this is impossible, appropriate steps must be taken to safeguard the health and well-being of the animals pending the rectification of those defects including the use of alternative methods of feeding and watering and alternative methods of providing and maintaining a satisfactory environment.

20. Where the health and well-being of the animals is dependent on an artificial ventilation system-
(a) provision must be made for an appropriate back-up system to guarantee sufficient air renewal to preserve the health and well-being of the animals in the event of failure of the system; and
(b) an alarm system (which will operate even if the principal electricity supply to it has failed) must be provided to give warning of any failure of the system.

21. The back-up system referred to in paragraph 20(a) must be thoroughly inspected and the alarm system referred to in paragraph 20(b) tested at least once every seven days in order to check that there is no defect, and, if any defect is found at any time, it must be rectified immediately.

68. All automated equipment, upon which the birds' welfare is dependent, must incorporate a fail safe device and/or standby device and an alarm system to warn the flock-keeper of failure. Defects should be rectified immediately or other measures taken to safeguard the health and welfare of the birds. Alternative ways of feeding and of maintaining a satisfactory environment should therefore be ready for use.

69. All electrical installations at mains voltage should be inaccessible to the birds and properly earthed.

**Mutilations**

The Mutilations (Permitted Procedures) (Wales) (Amendment) Regulations 2010, on beak trimming of poultry, states:

5. Beak trimming of poultry
   
   (1) For all poultry, the beak trimming procedure must be performed using a suitable instrument.
   
   (2) For all poultry, any subsequent haemorrhage from the beak must be arrested by cauterisation.
   
   (3) For all poultry the procedure must be performed on—

   (a) both the upper and lower beaks, with not more than one third of each removed, or
   
   (b) the upper beak only, with not more than one third removed.
   
   (4) For laying hens and chicks that are intended to become laying hens, which are kept on establishments with 350 or more such birds, beak trimming—

   (a) may only be performed in order to prevent feather pecking or cannibalism;
   
   (b) may only be carried out using infra-red technology;
   
   (c) may not be performed on birds which are aged 10 days or over; and
   
   (d) must be carried out by a person who has been provided with suitable and sufficient information, instruction and training so that they are qualified to perform the procedure.
   
   (5) Sub-paragraphs (4)(b) and (c) do not apply where the procedure is carried out in an emergency in order to control an outbreak of feather pecking or cannibalism.
70. Beak trimming should be carried out to the highest possible standards by trained operators.

71. Infrared beak trimming equipment must be monitored to ensure effectiveness of treatment, in terms of beak length and chick welfare. Equipment must be well maintained and calibrated.

72. Behavioural problems, which manifest themselves in injurious feather pecking, should be tackled immediately. Flock-keepers should implement a feather cover action plan, outlining proactive management of injurious pecking and cannibalism. Feather pecking is a displaced foraging behaviour and is more common in birds which are stressed. Factors such as stress, disease and overcrowding can reduce normal foraging behaviour and trigger injurious forms of pecking. The risk of feather pecking and cannibalism can be reduced by taking steps to encourage appropriate foraging behaviour and by any measure which improves the health and welfare of the birds and reduces stress. Further information on feather pecking is available at Appendix 3.

**Breeding Procedures**

Paragraph 28-29 of Schedule 1 of the Welfare of Farmed Animals (Wales) Regulations 2007 state that:

28.-(1) Natural or artificial breeding or breeding procedures which cause, or are likely to cause, suffering or injury to any of the animals concerned must not be practised.

(2) Sub-paragraph (1) does not preclude the use of natural or artificial breeding procedures that are likely to cause minimal or momentary suffering or injury or that might necessitate interventions which would not cause lasting injury.

29. Animals may only be kept for farming purposes if it can reasonably be expected, on the basis of their genotype or phenotype, that they can be kept without any detrimental effect on their health or welfare.

**Catching and Transport**


Article 3 of Council Regulation (EC) No.1/2005 states that:

No person shall transport animals or cause animals to be transported in a way likely to cause injury or undue suffering to them.

In addition, the following conditions shall be complied with:

a) all necessary arrangements have been made in advance to minimise the length of the journey and meet animals’ needs during the journey;

b) the animals are fit for the journey;
c) the means of transport are designed, constructed, maintained and operated so as to avoid injury and suffering and ensure the safety of the animals;

d) the loading and unloading facilities are adequately designed, constructed, maintained and operated so as to avoid injury and suffering and ensure the safety of the animals;

e) the personnel handling animals are trained or competent as appropriate for this purpose and carry out their tasks without using violence or any method likely to cause unnecessary fear, injury or suffering;

f) the transport is carried out without delay to the place of destination and the welfare conditions of the animals are regularly checked and appropriately maintained;

g) sufficient floor area and height is provided for the animals, appropriate to their size and the intended journey;

h) water, feed and rest are offered to the animals at suitable intervals and are appropriate in quality and quantity to their species and size.

Paragraph 3, Annex 1, Chapter 1, of Council Regulation (EC) No.1/2005, on fitness for transport, states that:

Sick or injured animals may be considered fit for transport if they are:

a) slightly injured or ill and transport would not cause additional suffering; in cases of doubt, veterinary advice shall be sought;

b) transported for the purposes of Council Directive 86/609/EEC if the illness or injury is part of a research programme;

c) transported under veterinary supervision for or following veterinary treatment or diagnosis. However, such transport shall be permitted only where no unnecessary suffering or ill treatment is caused to the animals concerned;

d) animals that have been submitted to veterinary procedures in relation to farming practices such as dehorning or castration, provided that wounds have completely healed.

Paragraph 1.1, Annex 1, Chapter 2, of the Council Regulation 1/2005, on means of transport, states that:

1.1. Means of transport, containers and their fittings shall be designed, constructed, maintained and operated so as to:

a) avoid injury and suffering and to ensure the safety of the animals;

b) protect the animals from inclement weather, extreme temperatures and adverse changes in climatic conditions;

c) be cleaned and disinfected;

d) prevent the animals escaping or falling out and be able to withstand the stresses of movements;

e) ensure that air quality and quantity appropriate to the species transported can be maintained;

f) provide access to the animals to allow them to be inspected and cared for;
g) present a flooring surface that is anti-slip;

h) present a flooring surface that minimises the leakage of urine or faeces;

i) provide a means of lighting sufficient for inspection and care of the animals during transport.

Paragraph 2.1, Annex 1, Chapter 5, of the Council Regulation 1/2005, on the watering and feeding interval, journey times and resting periods, states that:

2.1. For poultry, domestic birds and domestic rabbits, suitable food and water shall be available in adequate quantities, save in the case of a journey lasting less than:

(a) 12 hours disregarding loading and unloading time; or

(b) 24 hours for chicks of all species, provided that it is completed within 72 hours after hatching.

Annex 1, Chapter 7 of the Council Regulation 1/2005 sets out the minimum space allowances applicable to the transport of poultry in containers.

Minimum floor areas shall be provided as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Area in cm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-old chicks</td>
<td>21-25 per chick</td>
</tr>
<tr>
<td>Poultry other than day-old chicks; Weight in kg</td>
<td>Area in cm² per kg</td>
</tr>
<tr>
<td>&lt;1.6</td>
<td>180 – 200</td>
</tr>
<tr>
<td>1.6 to &lt;3</td>
<td>160</td>
</tr>
<tr>
<td>3 to&lt;5</td>
<td>115</td>
</tr>
<tr>
<td>&gt;5</td>
<td>105</td>
</tr>
</tbody>
</table>

73. Laying hens should not be deprived of feed or water. However, feed, may be withheld for up to 12 hours prior to slaughter. This period of 12 hours must be an inclusive period to include the catching, loading, transport, lairaging and unloading time prior to slaughter.

74. There should be coordination with the slaughterhouse in order to limit the time hens are held in containers before transport.

75. Before de-populating houses, any hindrance from fixtures and fittings, especially sharp edges and protrusions, must be removed. Care must be taken in catching hens in order to avoid panic and subsequent injury to and smothering of the hens, for example by reducing the intensity of the light or using a blue light.

76. The proper handling of hens requires skill, and it should be undertaken only by competent persons who have been appropriately trained. It should be carried out quietly and confidently, exercising care to avoid unnecessary struggling which could bruise or otherwise injure the hens. For catching laying hens in cages, they must be removed from the cage singly and to avoid injury or suffering and must be held by both legs. The breast should be supported during removal from the cage. Loose housed hens must be caught by both legs to avoid injury or suffering.
77. In all systems, laying hens should be lifted directly into the transport module. Catching should be by holding them around the body or by both legs. Care should be taken to avoid hitting solid objects particularly if wings are flapping. Hens should not be carried by their wings, heads or necks. The number of hens carried will depend upon the size of the hen and the ability of the carrier but a maximum of 3 per hand must not be exceeded. Distances hens are carried should be minimised, for example by bringing transport containers as close as possible to the hens.

78. During the time laying hens are held in the containers they should be protected from bad weather and excessively hot or cold conditions. They should not be allowed to become heat stressed (as indicated by prolonged panting) by being left in containers exposed to strong direct sunlight. Adequate ventilation for the hens is essential at all times.

79. Care should also be taken when crates are loaded on to vehicles, and in their transportation and unloading, to avoid causing injury or bruising to the hens.

80. Hens that cannot be transported because they are unfit to travel due to being ill, injured and infirm or fatigued should be given prompt veterinary treatment or humanely despatched on farm in line with Standard Operating Procedures required by the Protection of Animals at Time of Killing (Wales) Regulations 2014.

81. A contingency plan for road traffic accidents should be in place. All staff should know their roles and responsibilities in event of a road traffic accident and a sufficient number of staff should be on standby to assist with the recapture and/or humane despatch of birds, as necessary. The contingency plan should contain emergency and key contacts numbers.
Appendix 1 – Legal Provisions for Eggs and Chicks

For labelling purposes only, Commission Regulation (EC) No.589/2008 as amended, laying down detailed rules for implementing Council Regulation (EC) No.1234/2007 as regards marking standards for eggs, includes the following minimum requirements for systems of production for the various egg farming methods.

1. ‘Free-range eggs’ must be produced in systems of production which satisfy at least the conditions specified in Article 4 of Council Directive 1999/74/EC.

In particular, the following conditions must be satisfied:

(a) hens must have continuous daytime access to open-air runs. However, 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.

In case of other restrictions, including veterinary restrictions, adopted under Community law to protect public and animal health, having the effect of restricting access of hens to open-air runs, eggs may continue to be marketed as ‘free-range eggs’ for the duration of the restriction, but under no circumstances for more than 12 weeks;

(b) open-air runs to which hens have access must be mainly covered with vegetation and not be used for other purposes except for orchards, woodland and livestock grazing if the latter is authorised by the competent authorities;

(c) the maximum stocking density of open-air runs must not be greater than 2,500 hens per hectare of ground available to the hens or one hen per 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;

(d) open-air runs must not extend beyond a radius of 150 m from the nearest pophole of the building. However, an extension of up to 350 m from the nearest pophole of the building is permissible provided that a sufficient number of shelters as referred to in Article 4(1)(3)(b)(ii) of Directive 1999/74/EC are evenly distributed throughout the whole open-air run with at least four shelters per hectare.

2. ‘Barn eggs’ must be produced in systems of production which satisfy at least the conditions specified in Article 4 of Directive 1999/74/EC.

3. ‘Eggs from caged hens’ must be produced in systems of production which satisfy at least:

(a) the conditions specified in Article 5 of Directive 1999/74/EC until 31 December 2011; or

(b) the conditions specified in Article 6 of Directive 1999/74/EC.

4. Member States may authorise derogations from points 1 and 2 of this Annex for establishments with fewer than 350 laying hens or rearing breeding laying hens as regards the obligations referred to in the second sentence of points 1(d), 1(e), 2, 3(a)(i) and 3(b)(i) of Article 4(1) of Directive 1999/74/EC.
Appendix 2 - Guidance


Guidance on Egg Marketing Standards www.defra.gov.uk/food-farm/food/food-industry/egg-industry/


Guidance on training to provide specific stockmanship skills: http://www.poultrypassport.org/approved-training/
Appendix 3 – Feather Pecking

It is important to note that feather pecking is not normally an aggressive behaviour (aggressive pecking is normally directed at the head or neck, not the rest of the body). Indeed, a bird which responds aggressively to being pecked may help to deter injurious pecking.

A plan to reduce the risk of feather pecking should include attention to:

- Suitable breeds. Genetics plays a big role in the risk of feather pecking. It is good practice to select for strains with a low tendency for injurious pecking.
- Appropriate stocking densities in both rearing and laying houses. It should be noted that the provision of aerial perches, wintergardens and external range (including any measure to encourage ranging) are practical methods of effectively reducing stocking densities on the ground inside the shed and in turn the risk of feather pecking.
- Encouraging ranging and appropriate foraging. If birds have plenty of foraging opportunities, the risk of feather pecking will be reduced. The provision of verandahs or wintergardens can encourage ranging during bad weather and may also facilitate birds to go outside in free-range systems. The provision of natural or artificial cover on the range can also promote ranging. The provision of additional substrates such as straw bales and a range of pecking objects including edible ones can encourage foraging.
- Provision of raised perches. If resting birds are out of reach of foraging birds, the risk of feather pecking will be reduced.
- Pay particular attention to health and welfare when birds arrive at the laying farm since this is a high risk period for stress which can trigger feather pecking behaviour. The transition should be kept as smooth as possible ensuring, for example, there is no change of diet at this stage.
- Further to ensure a smooth transition, rearing systems should have a similar layout to laying houses. If pullets learn how to perch or to navigate multi-tier systems during rearing, they will cope better with the transition to the laying house. Providing access to range during rearing will also improve ranging at the laying farm, especially in the crucial first days, and so reduce the risk of feather pecking.
- Provision of high protein diets, with attention to key amino-acids, especially in the early stages of lay, can prevent them turning to each other as a source of nutrition.
- Control of weight gain, especially during rearing. Again, avoiding any nutritional stress will reduce the risk of cannibalism.
- A proper health plan including vaccination.
- Good climate management, especially levels of pollutants such as ammonia. Good litter management is also important.
• Providing good dry and friable dust-bathing substrate can also provide for natural behaviour, improve feather condition and reduce stress.

• Development of good human-animal relationships. In all of these cases, reducing stress reduces the risk of feather pecking.

• High levels of stockmanship and management including record keeping. This includes regular assessment of levels of feather cover and of injurious pecking and quick responses to any outbreak.

It is a very good sign of health and welfare where birds are kept with intact beaks without injurious pecking.

Guidance on injurious pecking: http://www.featherwel.org