

# **RSPCA Broiler Breed Welfare Assessment Protocol**

*To determine the welfare of broiler breeds*

*Version: June 2026*

**Any facility using this protocol that is unable to meet any of the requirements must contact the RSPCA Farm Animals Department to discuss further.**

© RSPCA 2026

*All rights reserved. No part of this assessment protocol may be reproduced, stored in a retrieval system, or transmitted in any way or by any means, including photocopying or recording without the permission of the copyright holder, application for which should be addressed to RSPCA Legal Services Department, Parkside, Chart Way, Horsham, West Sussex, RH12 1GY.*

*Whilst all reasonable care has been taken in the preparation of this assessment protocol, the RSPCA cannot accept any responsibility for any loss occasioned to any person acting or refraining from action as a result of relying on its contents.*

### 1. Accepted breeds

- a. Breeds currently considered acceptable for use under the RSPCA Welfare Standards for Meat Chickens can be found on the [RSPCA Assured website](#).
- b. Breeds accepted for use under the RSPCA Welfare Standards for Meat Chickens must be re-assessed according to this protocol - and the results presented to the RSPCA for re-evaluation of breed acceptability - at least by every eighth year following the last assessment, or sooner if there are reasonable grounds to suggest the welfare of the breed has deteriorated since its last assessment.

### 2. Decisions regarding breed acceptability

- a. The welfare of the trial breed will be compared to that of the Control breed to help inform a decision regarding its acceptability for use. In addition, threshold values that have been established for several parameters (see Appendix 2) may also be used to help guide this decision.
- b. In general, for a breed to be considered acceptable, the welfare of the trial breed must be at least comparable to that of the Control breed and its daily growth rate must not exceed the relevant threshold value specified in Appendix 2.

Note: if the daily growth rate of a breed that is intended to be used in free-range systems exceeds the threshold value, but is otherwise considered acceptable, then consideration may be given to assessing the acceptability of the breed according to the RSPCA Free-Range Broiler Breed Welfare Assessment protocol.

### 3. Protocol aim

To determine the level of welfare of a breed at broiler level.

- a. The trial has been designed to enable the breed to grow to its genetic potential by providing it with optimal conditions and a freely available, non-limiting diet.
- b. Although, at this time, the welfare of broiler breeders is not being assessed, breeder companies should give due consideration to the welfare of these birds, too.

Note: the RSPCA is considering setting a limit on the growth rate of broiler breeders, for future versions of this protocol.

### 4. Trials

- a. Trials are to be conducted at an independent research facility (Welfare Assessment Centre), under the supervision of independent researcher(s).
- b. There must be a minimum of two trials with four pens per breed (see Section 9 d.) in each trial. If the results are not clear after two trials then further trials may be required.

Note: trials may be run concurrently or sequentially (no more than 12 weeks apart, from the start of the two trials, if run sequentially).

### 5. Control

- a. The Hubbard JA757 must be used as the Control breed in all trials.

## 6. Parent flocks

- a. The parent flock age for each breed should be 40 weeks and, in any case, must be between 35 and 50 weeks. NB chicks from young, i.e. less than 35 weeks old, breeder flocks tend to be smaller.

Note: should the availability of a breed lead to parent flock age being outside this range the RSPCA should be contacted for further advice.

- b. The parent flock age for the breed under trial should be the same as the parent flock age for the Control breed and, in any case, must be within 4 weeks.

## 7. Hatching

- a. All birds used in the trial, including the Control breed, must be hatched at the Welfare Assessment Centre facilities, so that hatching and management conditions are the same for each breed.

Note: where this is not possible, all birds used in the trial, including the Control breed, must be incubated and hatched at the same facility, in agreement with the RSPCA Farm Animal Department, so that incubation, hatching, transport and management conditions are the same for each breed. The chicks for the trial must then be delivered to the Welfare Assessment Centre, at the same time and under the same conditions, as day olds. The transport of the chicks must be in accordance with the requirements set out in the *RSPCA welfare standards for hatcheries*.

## 8. Buildings

- a. All trials are to be conducted in Controlled Environment Housing with a solid concrete floor.

## 9. Set-up and bird numbers

Note: some of the requirements listed under this Section have been developed according to facilities currently in place at previously utilised Welfare Assessment Centres. These specifications may be amended if alternative facilities were also shown to provide statistically robust results. Please contact the Farm Animals Department for further information in this regard.

- a. For each trial, the breed under trial and the Control breed must be reared in adjacent pens within the same building.
- b. Each pen must measure 5.92m<sup>2</sup> and be rectangular in shape with the shorter sides of each pen measuring at least 1.8m.
- c. The sides of each pen must be high enough to prevent birds escaping from the pen.
- d. For each trial, 50 birds of the same breed must be placed in each of the four pens, i.e. 200 birds per breed per trial, to achieve a stocking rate of 8.5 birds/m<sup>2</sup>.
- e. Where it is possible to sex the birds at day old using a non-harmful procedure, such as feather sexing, then an equal proportion of males and females must be placed in each pen, i.e. 25 of each sex. Where this is not possible, birds must be placed as-hatched. Vent sexing is considered harmful.
- f. In each pen, there must be:
  - One 1.3m perch
  - One bell drinker with a circumference of 1100mm (350mm diameter).
  - One bell/pan feeder with a circumference of 1320mm (420mm diameter – measured inside the lip).
  - Wood shavings litter to a depth of 5cm across the entire floor area (the same amount of litter must be placed in each pen at the start of the trial).

- g. The perch, drinker and feeder used within each pen must be of the same design and colour and occupy the same position within the pen.
- h. Two types of perch must be provided, one of which must be constructed from lengths of rectangular, wooden baton that is 4 to 6cm in diameter and should have rounded edges.
- i. Perches must be positioned at a height to allow birds easy access, which will typically be between 10 to 30cm above the floor, depending on the age and breed of bird i.e. perches will need to be raised as bird age increases.
- j. The delivery of water must be automated.

## 10. Placement

- a. Placement of breeds into pens must follow a balanced design. Pens must be blocked to account for any known variation in environmental parameters, such as temperature, light level and humidity, between the pens, with the placement of breeds into pens randomised within each block.
- b. Ideally, all pens should be in the same room. If more than one room is used, then each room must include equal pens of Control and Test breeds using appropriate blocking, and room should be included in the statistical model to account for any potential differences.

## 11. Management

### 11.1 Feed and water

- a. Fresh, clean mains water must be available to all birds at all times.
- b. The same feed must be fed to all birds undergoing the trial.
- c. The feed must be pelleted, with the exception of a starter crumbs for chicks, and be available to all birds at all times.
- d. The feed provided must be of a high specification and non-limiting, with energy and protein levels being in excess of the amounts required for growth and, in any case, at least to the levels specified in Table 1.

**Table 1 Feeding regime and protein and energy specification**

Ration	Days provided	Protein level (%)	ME (MJ/Kg)
Starter	0 – 10	22.25	13.00
Grower	11 – 28	21.27	13.10
Finisher	29 to kill	18.20	13.35

### 11.2 Lighting

- a. Where possible, natural light, via windows, must be provided at all times during the natural daylight period.
- b. Artificial lighting can also be provided.
- c. The windows in the house must correspond to at least 3% of the total floor area of the house.
- d. An even distribution of light and light intensity must be achieved across each pen.
- e. A two hour continuous dark period must be provided from the day of placement and increased by one hour per day from day 3 up to a total of 6 hours continuous dark per day from day 6 (Table 2).

**Table 2 Lighting regime – dark period**

Day	Continuous hours of dark
0 (Placement)	2
1	2
2	2
3	3
4	4
5	5
6	6

- f. The dark period must commence at the same time each day and take place during the natural period of darkness.
- g. Lighting patterns in all pens must be recorded.

**11.3 Ventilation**

- a. The ventilation must be managed to ensure that all birds, at all times, have good air quality and are kept thermally comfortable.

Note: the thermal comfort zone of a chicken in an open space away from other birds is 8 to 30°C: varying primarily according to bodyweight, relative humidity and air speed.

**11.4 Litter**

- a. In each pen, the wood shaving litter is to be replenished as necessary to maintain it in a dry and friable condition.

**11.5 Culling**

- a. Birds in a poor state of health that are suffering and unlikely to benefit from treatment, including birds with a gait score of 4 and 5, must be humanely culled without delay by a competent stock-keeper.

**12. Measures and assessment**

**12.1 Environmental parameters**

- a. Temperature (minimum and maximum °C) and relative humidity must be recorded daily for each pen.
- b. Light levels (lux) in each pen must be recorded at the time of the welfare assessment (Section 12.5).

**12.2 Sex**

- a. Prior to assessment, all males and/or females within each pen must be identified and counted. This could be achieved by marking all the same sex birds with a spray marker.

### 12.3 Production parameters

- a. The following production parameters must be recorded daily for each pen:
  - i. Feed provision (kg)
  - ii. Litter provision (kg)
  - iii. Number of deaths (where possible, with reason for death recorded, such as heart attack or ascites. If a bird was found dead on its back then this must be recorded)
  - iv. Number of leg culls
  - v. Number of runt culls
  - vi. Number of other culls (with reason for culling recorded)

### 12.4 Weighing

- a. The birds must be bulk weighed at day old, and at 2, 4 and 5 weeks of age, and at kill, and the average weight for each breed calculated.
- b. Each bird in each pen must be weighed individually at the same time as conducting the welfare assessment (see Section 12.5).

### 12.5 Welfare assessment

- a. All birds for a breed must be assessed on the same day for the same parameters by a trained and competent assessor.
- b. All birds for all the breeds must be assessed by the same assessor.
- c. All welfare parameters must be assessed when the average weight for the breed within each trial is 2.20kg and at the average final slaughter weight for the domestic market for the country of intended use, where this is higher.
- d. The following welfare parameters must be assessed in the following order and scored according to the guides set out under Appendix 1:
  - i. Walking ability
  - ii. Feather cover
  - iii. Breast plumage dirtiness
  - iv. Pododermatitis
  - v. Hock burn
- e. All birds in each pen must be assessed for walking ability and this parameter must be assessed first.
- f. After assessing walking ability, a random sample of 25 birds per pen must be caught using a catching frame to assess all other welfare parameters. The number of birds caught must be counted and confirmed to be 25 or greater before assessments proceed. If less than 25 birds are caught, the frame must be lifted and the catching process repeated. If more than 25 birds are caught, all the birds must all be assessed.
- g. If it is not possible to assess all parameters on the same day, then walking ability can be assessed on the first day, with the other parameters assessed the following day.
- h. After assessing for feather cover, the bird is to be inverted (ventral side facing the assessor) and held by the legs with the assessor's thumbs placed just below the intertarsal joint, to assess the remaining parameters.
- i. The sex of each bird assessed must be recorded.
- j. Any medical treatments given to the birds must be recorded, with reasons for administration.
- k. Any kill data available, such as DOA's (%), factory rejects (%), downgrades (%), breast blisters (%), scratches (%), grade A's (%), must be included in the analyses.

- I. For each trial, all pens must be video recorded for one day (24-hours) once a week.
- m. Upon request from the RSPCA farm animal Department, this footage must be analysed by scan sampling once per hour for the 24-hour period each week, giving 24 scans per 24 hours per pen per week, to provide an approximation of daily time budgets. The following behaviour patterns are to be recorded were feeding:
  - (i) feeding: bird with head in feeder
  - (ii) drinking: bird with head in drinker
  - (iii) standing: upright position with two feet on the ground and legs extended and no other activity being performed
  - (iv) sitting: breast in contact with the ground and no other activity being performed
  - (v) locomotion: moves more than 2 steps in one direction
  - (vi) foraging: scratching or digging in a substrate with the beak or feet
  - (vii) perching: standing or sitting on the perch
  - (viii) preening: using beak to clean feathers or body
  - (ix) dustbathing: lying on the ground and rubbing the body in the litter or moving the litter over the body with the feet, beak or wings.

Note: the decision to request analysis of the behavioural footage will be made following presentation of the results for the physical measures. It is more likely to be necessary where the results for the test breed tends toward differences from the Control breed, leading to consideration of acceptance on the breed by RSPCA Assured under derogation.

### 13. Data analysis

- a. For each breed, the average proportion of birds for each parameter, including each score where relevant, is to be provided and compared for any statistical difference with the Control. Average values, probability values and standard deviations are to be provided for each comparison.
- b. Temperature, relative humidity and light level must be examined to ensure any between-pen variation in these parameters has been successfully accounted for under Section 9a.
- c. For each welfare parameter assessed, any between sex differences for each breed must be reported.
- d. FCR is to be calculated when the birds are 2.20kg.
- e. The impact of any illness experienced by the birds during the trial must be reported.
- f. Appendix 2 (Welfare Assessment Results) must be completed for submission to the RSPCA Farm Animals Department along with relevant graphical representation of the data, e.g. box-and-whisker plots.

## Appendix 1: Scoring guides for welfare parameters

### 1. Walking ability<sup>1</sup>

Birds must be observed walking for at least 10 paces before being scored.

Score	Definition
0	<b>The bird displays smooth, fluid locomotion.</b> Typically the foot is picked up and put down smoothly and each foot is brought under the bird's centre of gravity as it walks (rather than the bird swaying). Often, the toes are partially curled while the foot is in the air.
1	<b>The bird has a slight defect in its gait that is difficult to define precisely.</b> The bird may take unduly large strides, be unsteady or wobble when it walks, which produces an uneven gait, but the problem leg is unclear/cannot be easily identified.
2	<b>The bird has a definite and identifiable gait abnormality, but this does not affect its ability to move.</b> The bird may make short, quick, unsteady steps with one leg, but is not sufficiently lame to seriously compromise its ability to move, i.e. manoeuvre, accelerate and run.
3	<b>The bird has an obvious gait defect that affects its ability to move.</b> The bird may have a limp, jerky or unsteady strut, or splay one leg as it moves. The bird often prefers to squat when not coerced to move, and will not run.
4	<b>The bird has a severe gait defect.</b> The bird is capable of walking, but only with difficulty and when driven or strongly motivated. Otherwise it squats down at the first available opportunity.
5	<b>The bird is incapable of sustained walking on its feet.</b> Although it may be able to stand, the bird cannot walk except with the assistance of the wings or by crawling on the shanks.

### 2. Feather cover<sup>2</sup>

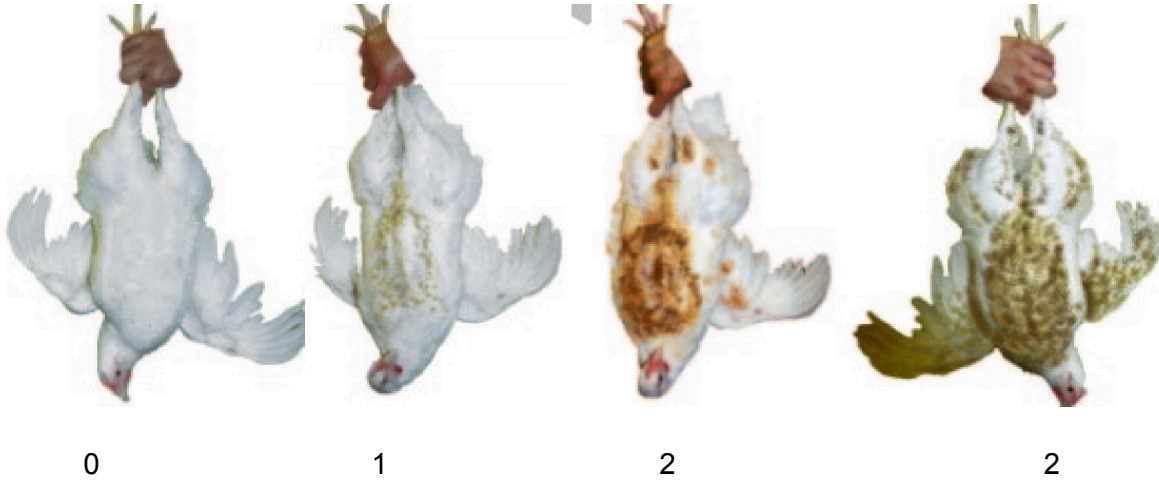
Score	Definition
0	Feather cover is full and even over body and wings
0.5	Feather cover is slightly patchy on the sides OR back of the body OR on the wings
1.0	Feather cover is patchy to bare on sides OR back of body
1.5	Feather cover is bare on sides of body with a light covering on back
2.0	Body is bare of feathers and wings are patchy of feathers

<sup>1</sup> Adapted from: Kestin, S.C., Knowles, T.G., Tinch, A.E. & Gregory, N.G. 1992. Prevalence of leg weakness in broiler chickens and its relationship with genotype. *Veterinary Record*, **131**:190-194.

<sup>2</sup> Dawkins, M. S., Donnelly, C. A. & Jones, T.A. 2004. Chicken welfare is influenced more by housing conditions than by stocking density. *Nature*, **427**:342-344.

### 3. Breast plumage dirtiness<sup>3</sup>

Score	Definition
0	Plumage is clean
1	Slightly dirty plumage, feathers feel slightly 'crusty' when touched
2	Large patches of dirty plumage on breast / breast is completely covered in dirty plumage, feathers feel 'crusty' when touched



Photos from: Welfare Quality<sup>®</sup>. 2009. *Welfare Quality<sup>®</sup> assessment protocol for poultry (broilers, laying hens)*. Welfare Quality<sup>®</sup> Consortium, Lelystad, Netherlands

### 4. Pododermatitis<sup>4</sup>

Score	Definition
0	No lesions present on the pads
0 (P/S/H)	Very small superficial lesions (1-2mm), slight discolouration in a limited area, mild hyperkeratosis./ Or, no lesions present on the pads, but the pad is pink (P) and/or swollen (S) and/or scarred (i.e. pads have a new, smooth skin covering – healed (H))
1	Area affected does not extend over the entire plantar pad, substantial discolouration, dark papillae, superficial lesion, and no ulceration.
2	Greater surface of plantar pad usually affected, sometimes with lesions on toes. Deeper lesion/s with ulceration, sometimes haemorrhage, scabs of significant size, severely swollen foot pad

<sup>3</sup> Adapted from Welfare Quality<sup>®</sup>. 2009. *Welfare Quality<sup>®</sup> assessment protocol for poultry (broilers, laying hens)*. Welfare Quality<sup>®</sup> Consortium, Lelystad, Netherlands.

<sup>4</sup> As per the RSPCA welfare standards for meat chickens, September 2025 (with the addition of 0 (P/S/H))

5. Hock burn<sup>5</sup>

Score	Definition
0	No discoloration or lesions present on hocks
0 (P/S)	Very small and superficial (<1mm), slight discolouration in a limited area, mild hyperkeratosis (thickening of the skin) / No discoloration or lesions present on hocks, but hock is pink and/or swollen
1	Area affected does not extend over hock, substantial discolouration, dark papillae, superficial lesion, no ulceration.
2	Greater surface of hock affected. Deeper lesion/s with ulceration, sometimes haemorrhage, scabs of significant size, severely swollen area.

---

<sup>5</sup> As per the RSPCA welfare standards for meat chickens, September 2025 (with the addition of 0 (P/S))

## Appendix 2: Welfare Assessment Results

Figures to represent the average proportion of birds affected by a condition, unless otherwise stated.  
All threshold values are maximum values, unless otherwise stated.

**Protocol version used:**

**Total number of trials:**

**Start & finish dates for each trial:**

**Name of breed under trial:**

**Name of breeding company for breed under trial:**

Parameter	JA757 result (mean ± SD)	Trial breed result (mean ± SD)	P-value	Guide threshold value	Notes
Age at assessment (days)				-	
Weight at assessment (g)				-	
Daily growth rate (g per day)				Indoor 60 max. Free-range 52 max.	To be calculated using the birds' age when 2.2kg.
FCR				For information	
Parent flock age (wks)				See point 6b. of the protocol.	Provide ages for each trial.
Male: Female ratio				-	

Mortality					
Leg culls (%)				-	
Heart attack (%)				-	
Ascites (%)				-	
Other dead (%)				-	
Runts (%)				-	
Other culls (%)				-	
Total mortality for all parameters except runts & other culls (%)				-	

Mortality <sup>1</sup>					
Leg culls (%) <sup>1</sup>				Max. 1.0	
Heart attack (%) <sup>1</sup>				Max. 1.0	
Ascites (%) <sup>1</sup>				Max. 1.0	
Other dead (%) <sup>1</sup>				Max. 1.50	
Runts (%) <sup>1</sup>				For information	
Other culls (%) <sup>1</sup>				For information	
Total mortality for all parameters except runts & other culls (%) <sup>1</sup>				Max. 3.00	

<sup>1</sup>Not including mortality up to 12 days of age.

Walking ability					
Average score				For information	
Scores 0, 1 & 2 combined (%)				Min. 95	
Score 0 (%)				Min. 100.0	
Score 1 (%)				Min. 100.0	
Score 2 (%)				Max. 35.0	
Score 3 (%)				Max. 5.0	
Score 4 (%)				Max. 0.0	
Score 5 (%)				Max. 0.0	

Hock burn					
Average score				For information	
Scores 0 & 0.5 combined (%) <sup>2</sup>				Min. 80	
Score 0 (%)				Min. 100.0	
Score 0 but pink/swollen (%)				Max. 15.0	
Score 1.0 (%)				Max. 0.0	
Score 2.0 (%)				Max. 0.0	

<sup>2</sup>Not including pink/swollen figures.

Pododermatitis					
Average score				For information	
Scores 0 & 0.5 combined (%) <sup>2</sup>				Min. 90	
Score 0 (%)				Min. 100.0	
Score 0 but pink/healed/swollen (%)				Max. 8.0	
Score 1.0 (%)				Max. 0.0	
Score 2.0 (%)				Max. 0.0	

<sup>2</sup>Not including pink/swollen figures.

Breast plumage dirtiness					
Average score				For information	
Score 0 (%)				Min. 100.0	
Score 1 (%)				Max. 50.0	
Score 2 (%)				Max. 25.0	

Feather cover					
Average score				For information	
Scores 0 & 0.5 combined (%)				Min. 70	
Score 0 (%)				Min. 100.0	
Score 0.5 (%)				Max. 50.0	
Score 1.0 (%)				Max. 30.0	
Score 1.5 (%)				Max. 0.0	
Score 2.0 (%)				Max. 0.0	

Litter					
Amount of additional litter used (Kg)				For information	

Behaviour					
Feeding (%)				-	
Drinking (%)				-	
Standing (%)				-	
Sitting (%)				-	
Locomotion (%)				-	
Foraging (%)				-	
Perching (%)				-	
Preening (%)				-	
Dustbathing (%)				-	

## **Acknowledgements**

The RSPCA would like to thank SRUC, Aviagen, Cobb, FAI, and Hubbard for their valuable input into helping develop this protocol.