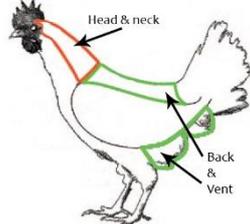


Breeder birds and hatcheries Toolkit

Resource 1: Scoring scales

Breeder feather loss

Source: [Assurewel, Laying hens](#)

<p>Sample: 100 birds</p> <p>Method of assessment: Assess and score 10 birds in each of 10 different areas of the house and/or range. Visually assess the head/neck area and back/vent area of the bird (without handling).</p> <p>Score separately for head/neck area and back/vent area.</p>	
<p>Scoring:</p> <p>0 =</p>	<p>None or minimal feather loss No bare skin visible, no or slight wear, only single feathers missing</p> 
<p>1 =</p>	<p>Slight feather loss Moderate wear, damaged feathers or 2 or more adjacent feathers missing up to bare skin visible <5cm maximum dimension</p> 
<p>2 =</p>	<p>Moderate/severe feather loss Bare skin visible ≥5cm maximum dimension</p> 

Resource 2: Examples of animal abuse

Beat, strike or kick animals; ill-treat; exhaust; overload; torture; excessively frighten; apply pressure to any particularly sensitive part of the body in such a way as to cause unnecessary pain or suffering; suspend the animals themselves by mechanical means; lift or drag the animals by head, ears, horns, legs, tail or fleece, or handle them in such a way as to cause unnecessary pain or suffering; use prods or other implements with pointed ends; tie by the horns, antlers, nose rings or by legs tied together. Unnecessary or cruel use of instruments which administer electric shocks.

Resource 3: Glossary

<p>LENGTH</p> <p>1ft = 0.305m</p>	<p>LENGTH</p> <p>1m = 3.281ft</p>	<p>AREA</p> <p>1m² = 10.764ft²</p>
<p>AREA</p> <p>1ft² = 0.0929m²</p>	<p>WEIGHT</p> <p>1lb = 0.454kg</p>	<p>WEIGHT</p> <p>1kg = 2.205lb</p>
<p>LIGHT</p> <p>20 Lux = 1.858ft candle</p>	<p>LIGHT</p> <p>0.25ft candle = 2.691 Lux</p>	<p>LIGHT</p> <p>1ft candle = 10.764 Lux</p>

Resource 4a: The permitted methods for euthanasia of breeder birds

1. Manual or mechanical dislocation of the neck (cervical dislocation).
2. Use of specialised equipment for percussive stunning, followed by bleeding.
3. Captive bolt or percussive stunning devices approved specifically for chickens.

The most commonly used methods on farm are manual cervical dislocation or captive bolt device:

- Cervical dislocation is performed manually, without the use of objects to assist (unless for birds less than seven days old, or of an equivalent size to a seven-day-old bird, where a sharp, fixed, rigid object may be used to assist in cervical dislocation). It is carried out by holding the bird with both legs in one hand, the head in the other (unless the bird is being culled for poor leg health or the bird has apparent leg problems, in which case the base of both wings must be held in one hand instead of the legs). Using a single quick and controlled stretching motion should dislocate the neck vertebrae from the cranium and sever the spinal cord and carotid arteries, causing immediate death at the first attempt.



EFSA Journal (2019): [Killing for purposes other than slaughter: poultry](#)

- Captive bolt devices must be designed, manufactured, maintained and operated to be appropriate for the size of the bird. They must be fit for purpose and able to achieve immediate death at the first attempt. The operator of a captive bolt device must: appropriately restrain the bird to enable accurate positioning of the device; rest the captive bolt device on the top of the bird's head (on the midline between the eyes where the brain is located), aim straight down, and administer the bolt directly over the skull on the top of the head.

Less commonly used, but approved methods:

- Exposure to an approved gas mixtures until death.
- Electrical stunning followed by bleeding (slaughter) or electrocution leading to cardiac arrest.
- Lethal injection with an approved euthanasia solution delivered by an acceptable route, provided it is carried out under the supervision of a veterinarian.

The following methods of euthanasia for breeder birds are not permitted:

- Killing pliers or other equipment that crushes the neck.
- Methods of cervical dislocation that require spinning or flicking of the bird.
- Mechanical methods of cervical dislocation.
- Decapitation (unless as an unintended result of applying a permitted euthanasia method).
- The use of an object including a sharp, fixed object to assist in performing cervical dislocation.
- Brain piercing.
- Traumatic brain injury and death caused by one strike with a blunt instrument (commonly known as blunt trauma).
- Any method that requires the employee to administer a blow to the head causing death (such as striking the head with a blunt instrument or against a stationary object) is not approved.

Checking animals after application of the euthanasia method

Each bird must be checked to confirm it is dead immediately following the applied euthanasia method, evidenced by the following signs:

- For cervical dislocation: complete severance between the brain and the spinal cord, evident by feeling a gap in the neck vertebrae.
- For captive bolt device: no nictitating membrane reflex; no rhythmic breathing; no neck tension; and no vocalisation.

Resource 4b: The permitted methods for euthanasia of chicks

Methods for hatchery euthanasia

1. Instantaneous mechanical destruction (maceration) – method used for chicks and in-shell embryos.
2. Exposure to a maximum of 2% oxygen by volume and 90% argon (or other inert gas) by volume in atmospheric air.
3. Exposure to a maximum of 30% carbon dioxide by volume and a minimum of 60% argon (or other inert gas) by volume in atmospheric air, with no more than 2% residual oxygen.

Waiting times (RSPCA)

No bird must be left for longer than 15 minutes before being culled/killed, from the time of removal from the hatcher.

Gas systems (RSPCA)

- The use of 100% carbon dioxide gas is not permitted as a method of disposing of birds.
- All equipment used in the culling/killing of birds must be inspected daily by trained operators to ensure it is working effectively, and a record is kept of the outcome.
- Where gas mixtures are used, the gas concentration must be controlled and monitored accurately, using correctly calibrated and appropriate gas analysis equipment.
- Where gas is used, birds must be placed into the gas container only once the correct gas mix/concentration has been achieved.
- There should be a visual or auditory alarm system to alert the operative if the residual volume of oxygen exceeds 2%, or the concentration of carbon dioxide exceeds 30%.
- The gas monitoring and alarm system should be easily observable by the operative at all times.
- Particular care must be taken to ensure there are no air pockets that could reduce the effectiveness of the gas.
- There must be a constant supply of gas mixture readily available at all times while disposing of birds.
- There must be a system or procedure in place to determine when the gas supply is ending.
- Birds must be thoroughly checked to ensure all are dead before disposing of the carcasses.
- Records must be kept and updated daily by those responsible for the disposal of birds.

Maceration systems (RSPCA)

Where maceration is employed:

- The birds must not be deflected upwards by the blades or projections of the mechanical device.
- The birds must go straight into the blades or projections.
- Handling large numbers of birds must not reduce the effectiveness of the machine.
- The operator must ensure death is caused instantaneously.
- Whatever the design of macerator employed, the number of birds, speed of operation and effectiveness of the macerator must be monitored to protect the welfare of the birds at all times.

Resource 5: Medicine purchase and use records

Medicine purchase records to include: identity of medicine; quantity of medicine; date of purchase; name and address of supplier; batch number(s); and expiry date(s).

Medicine use records to include: the name of the vaccine, drug or other substance; lot and batch number; quantity of medicine administered; date of treatment; identification of the bird (or group of birds) to which administered; age of treated birds; number of birds treated; date of administration; name of administrator; name of vet issuing prescription; reason for treatment; route of administration; length of treatment; withdrawal times if appropriate; and date of safe slaughter if appropriate.

Resource 6a: Health and welfare (H&W) plan

1. Infectious disease control and vaccinations used and planned
2. Parasite control
3. Management of non-infectious (management-induced) disease and injury
4. Flock testing programme for salmonella
5. Vaccination programme for *S. enteritidis* and *S. typhimurium*
6. Health and disease incidence record-keeping
7. Written plan to respond to sudden increases in morbidity or mortality
8. An Avian Influenza contingency plan
9. Monitoring of KPIS and KWIs, and actions planned to deal with increases in KWI or KPI levels
10. Corrective Action Plan within the health and welfare plan, to bring performance in line with good practice
11. Methods and records of euthanasia

Resource 6b: Health and welfare (H&W) plan

1. Infectious disease control and vaccinations used and planned
2. Management of non-infectious (management induced) disease and injury
3. Hatchery testing programme for salmonella
4. Hatchery testing programme for mycoplasma spp.
5. Vaccination programme for *S. enteritidis* and *S. typhimurium*
6. Health and disease incidence record-keeping
7. Written plan to respond to sudden increases in morbidity or mortality
8. An Avian Influenza contingency plan
9. Monitoring of KPIs and KWIs, and actions planned to deal with increases in KWI or KPI levels
10. Corrective Action Plan within the health and welfare plan, to bring performance in line with good practice
11. Methods and records of euthanasia

Resource 7 Biosecurity plan

1. Emergency contact list
2. Named biosecurity person(s)
3. Employee training in biosecurity
4. Lines of separation (LOS) including fences and separate areas, how they are used to protect the animals and people
5. Biosecurity entry procedures
6. Biosecurity exit procedures
7. Biosecurity requirements for visitors (visitor book, PPE)
8. Biosecurity requirements for feed and other deliveries (recording entry, PPE, disinfection)

9. Cleaning and disinfection operating procedures
10. Disinfectant chemicals used (approvals, safe use, dilutions, replenishment)
11. Animal movements (new animals/eggs in, movement of animals out)
12. Dealing with sick and dead animals (safe, humane euthanasia, hygienic disposal)
13. Vermin, vector and wildlife control

Resource 8: Links to assurance standard organisations

[RSPCA \(UK\) Assured Standards](#)

[RSPCA \(Australia\) Standards](#)

[Global Gap Animal Welfare Standards](#)

[Red Tractor Standards](#)

[Beter Leven Controls](#)

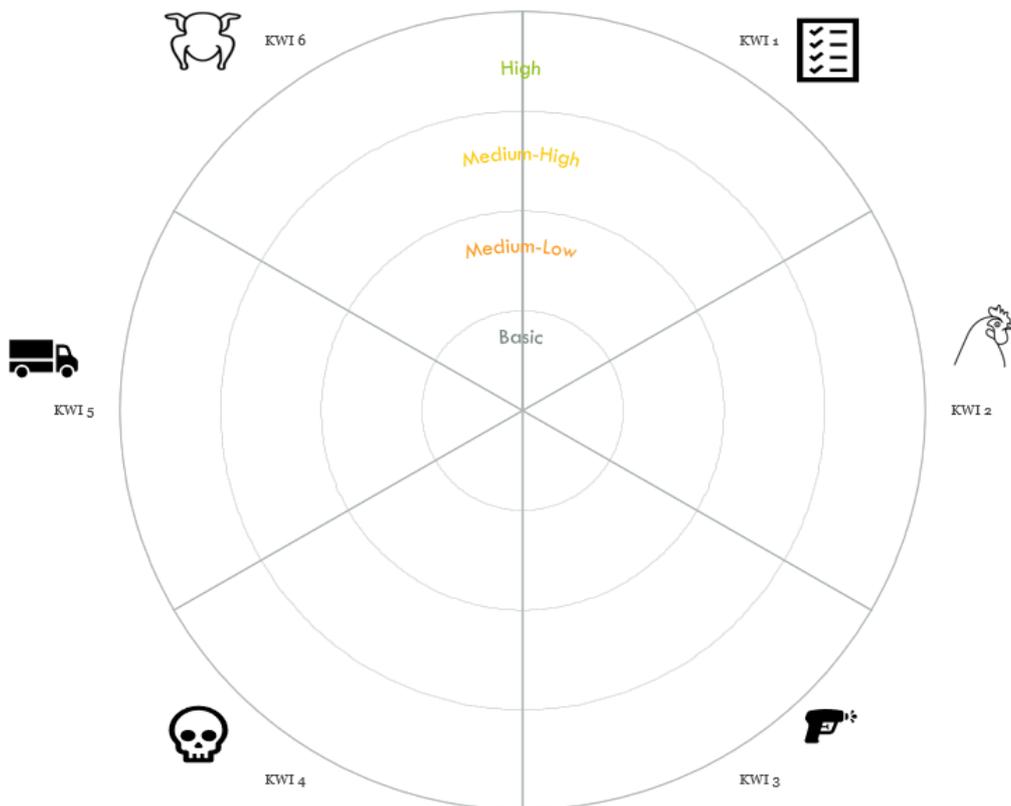
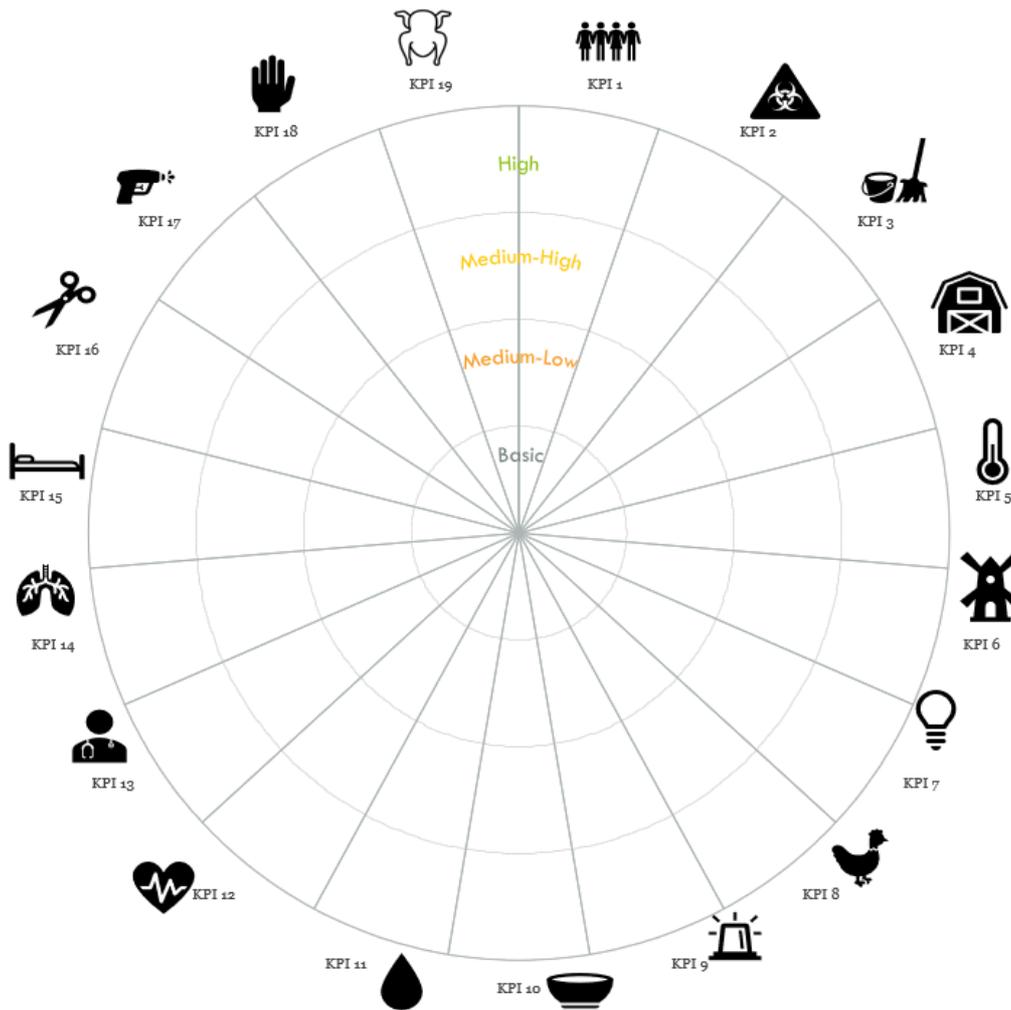
[German Animal Welfare Federation](#)

[Four Paws](#)

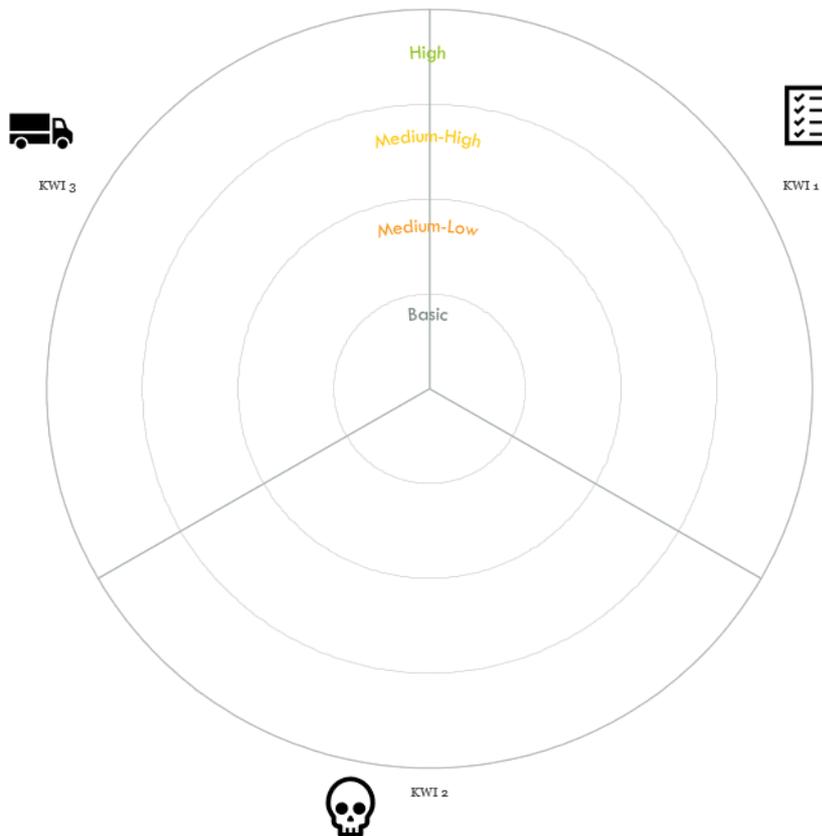
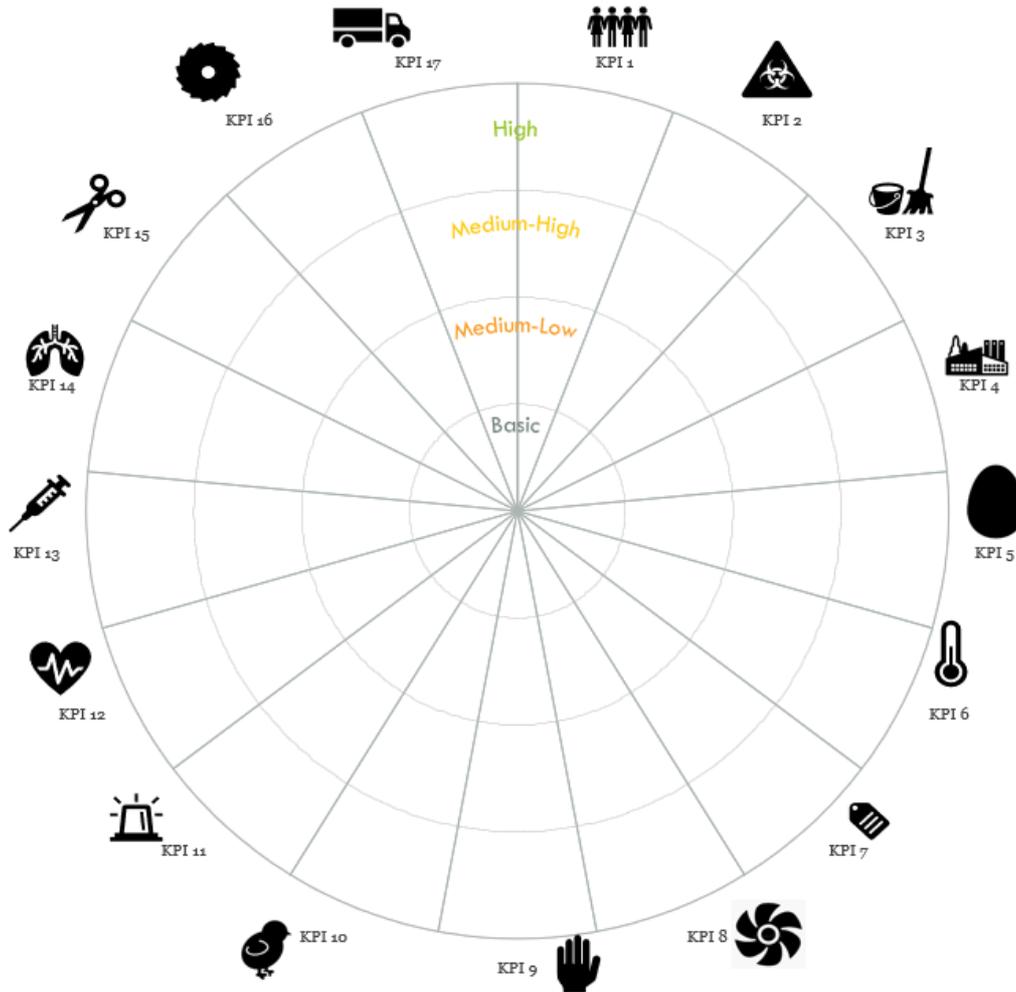
[AssureWel](#)

[Welfare Quality Network - Assessment Protocols](#)

Resource 9: Blank sector charts: Breeder Birds



Resource 9: Blank sector charts: Hatchery



Resource 10: Published resources and further reading

Assurewel: [Laying hens](#)

AssureWel: [The AssureWel Approach to Improving Farm Animal Welfare: The Development and Use of Welfare Outcome Assessments in Farm Assurance](#)

BBFAW Investor Briefing (August 2015): [How are Investors Using the Business Benchmark on Farm Animal Welfare?](#)

BBAFW Investor Briefing (November 2017): [How Companies Are Using the Business Benchmark on Farm Animal Welfare](#)

BBFAW: [The Business Benchmark on Farm Animal Welfare Report 2019](#)

British Veterinary Association: [Farm Assurance Schemes Infographic](#)

Canadian National Farm Animal Care Council (2016): [Codes of Practice, Chickens, Turkeys and Breeders](#)

[Compassion in World Farming, Strategic Plan 2013–2017, For Kinder, Fairer Farming Worldwide](#)

COUNCIL DIRECTIVE (EC) 1099/2009 on the protection of animals at the time of killing

COUNCIL DIRECTIVE (EC) 1/2005 of 22 December 2004 on the protection of animals during transport and related operations and amending Directives EEC 64/432/EEC and 93/119/EC and Regulation (EC) 1255/97

COUNCIL DIRECTIVE 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes

COUNCIL DIRECTIVE 1999/74/EC of 19 July 1999 laying down minimum standards for the protection of laying hens

[COUNCIL DIRECTIVE 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes](#)

CSIRO Publishing (2001): [Model Code of Practice for the Welfare of Animals: Livestock at Slaughtering Establishments](#)

DEFRA (2018): [Code of Practice for the Welfare of Laying hens and Pullets](#)

European Bank for Reconstruction and Development: [Sub-sectoral Environmental and Social Guideline: Poultry Farming](#)

EFSA (2012): [Scientific report updating the EFSA opinions on the welfare of broilers and broiler breeders](#)

FAO: [Water Quality for Livestock and Poultry](#)

[FAWC advice on animal sentience \(10 June 2019\)](#)

[FAWC: Evidence and the welfare of farmed animals - part 2: evidence based decision making \(19 July 2018\)](#)

[FAWC advice on space and headroom allowances for transport of farm animals \(17 September 2013\)](#)

[FAWC report on farm animal welfare: health and disease \(29 November 2012\)](#)

[FAWC opinion on contingency planning for farm animal welfare in disasters and emergencies \(15 March 2012\)](#)

[FAWC advice on sustainable intensification of livestock agriculture \(3 February 2012\)](#)

[FAWC report on education about farm animal welfare \(15 December 2011\)](#)

[FAWC report on economics and farm animal welfare \(7 December 2011\)](#)

[FAWC opinion on osteoporosis and bone fractures in laying hens \(14 December 2010\)](#)

Gov UK: [The Welfare of Farmed Animals \(England\) Regulations 2007](#)

Gov UK: [Animal Welfare Act 2006](#)

IFC (2014): Good Practice Note: Improving Animal Welfare in Livestock Operations (2014)

Edgar, J.L.; Mullan, S.M.; Pritchard, J.C.; McFarlane, U.J.C.; and Main, D.C.J.: [Towards a 'Good Life' for Farm Animals: Development of a Resource Tier Framework to Achieve Positive Welfare for Laying Hens](#)

OIE: [Terrestrial Animal Health Code \(2019\)](#)

OIE Terrestrial Animal Health Code (2019): [Chapter 7.5, Slaughter of Animals](#)

OIE: [The OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials \(2016\)](#)

[Red Tractor Chicken Standards: Broiler and Poussin Standards Version 4.2 \(updated 2019\)](#)

[Red Tractor Chicken Standards: Indoor Enhanced Welfare Version 1 \(2020\)](#)

[Red Tractor Chicken Standards: Hatchery Version 4.1 \(updated 2019\)](#)

[Red Tractor Chicken Standards: Breeder Layers Version 4.1 \(Updated 2019\)](#)

[Red Tractor Chicken Standards: Breeder Replacements Version 4.1 \(Updated 2019\)](#)

RSPCA (2017): [Welfare standards for laying hens](#)

RSPCA (2017): [Welfare standards for hatcheries \(chicks, poults and ducklings\)](#)

[RSPCA \(2018\): Welfare standards for pullets \(laying hens\)](#)

[RSPCA \(2017\): Welfare standards for meat chickens](#)

Share Action: [What we do](#)

SPCA Certified (2017): [Standards for the raising and handling of broiler chickens](#)

SPCA Certified (2017): [Standards for the raising and handling of egg-laying hens](#)

Vet Sustain (2019): [The Veterinary Sustainability Goals](#)

Welfare Quality Network: [Assessment Protocols](#)

WHO: [Water Safety and Drinking Water Quality Guidelines](#)

World Bank Group: [General Environmental, Health and Safety \(EHS\) Guidelines, \(April 2007\)](#)

[World Vet Antimicrobial Stewardship: McDonald's Corporation – Vision for Antimicrobial Stewardship in Food Animals \(March 2015\)](#)