

Beef cattle Toolkit

Resource 1: Scoring scales

Lameness scoring

Source: Welfare Quality Network: [Assessment Protocols](#) and [Assessment protocol for cattle \(without veal calves\)](#)

Lameness describes an abnormality of movement and is most evident when the animal's legs are in motion. It is caused by reduced ability to use one or more limbs in a normal manner. Lameness can vary in severity from reduced mobility to the inability to bear weight.

Assess the animal for presence of one of the indicators mentioned below, according to the description for either standing or moving animals.

Indicators in **moving** animals:

- Reluctance to bear weight on a foot
- Uneven temporal rhythm between hoof beats, weight not borne for equal time on each of the four feet

Indicators in **standing** animals:

- Resting a foot (bearing less or no weight on one foot)
- Frequent weight shifting between feet ('stepping'), or repeated movements of the same foot
- Standing on the edge of a step

Individual level:

- 0 - No evidence of lameness: animals showing none of the indicators listed above
- 2 - Evidence of lameness: animals showing one indicator in the case of either moving or standing animals

Score: Percentage (%) of lame animals

Body condition scoring

Source: [AssureWel, Beef cattle](#)

Sample: 20 adult animals selected at random (**3** or more assessed jointly with stockperson) plus all breeding bulls

Visually assess the tail head and loin area of cattle based on the Defra condition scoring method, viewing the animal from behind and from the side. Manual assessment can help distinguish borderline scores but is not expected.

Scoring:

Thin = Defra score 1 or 2

Tail head

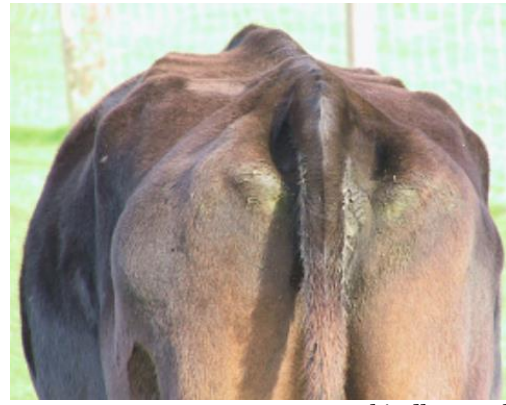
- Deep cavity with no fatty tissue under skin or shallow cavity with some fat under skin but pin bones prominent
- Skin supple/fairly supple and coat condition may be rough.

Loin

- Spine prominent. Vertebra may be identified individually
- Horizontal processes can be identified individually with either sharp or rounded ends.

The following list should assist in making a confident decision with cows in BCS 1/2:

- Horizontal processes give a prominent shelf-like appearance to the loin
- Outline of the hook bone is prominent with no or only some fat padding
- Outline of the pin bone is prominent with no or only some fat padding
- There are folds of skin in the depression between the tail head and pin bone
- Thurl is sunken and curved in.



Images kindly supplied by NADIS

Moderate = Defra score 2.5 to 3.5

Fat = Defra score 4 or 5

Tail head

- Completely filled and folds and patches of fat evident or almost buried in fatty tissue.

Loin

- Cannot see horizontal processes and the loin area, has a completely rounded appearance.

The following list should assist in making a confident decision with cows in BCS 4/5:

- Back is solid and straight
- Hook bones are rounded with obvious fat padding or bones are/may not be visible because they are buried in fat
- Pin bones are rounded with obvious fat padding or bones are/may not be visible because they are buried in fat
- Ribs are covered with a thick layer of fat
- Thurl is filled in



Images kindly supplied by NADIS

Hair loss scoring

Source: Welfare Quality Network: [Assessment Protocols](#) and [Assessment protocol for cattle \(without veal calves\)](#)

Hair loss and abrasions

Integument alterations are defined as hairless patches and lesions/swellings. Hairless patches and lesions or swellings are counted in accordance with the criteria provided below (only skin alterations of a minimum diameter of 2cm at the largest extent are counted). Assess one side of the animal for integument alterations.

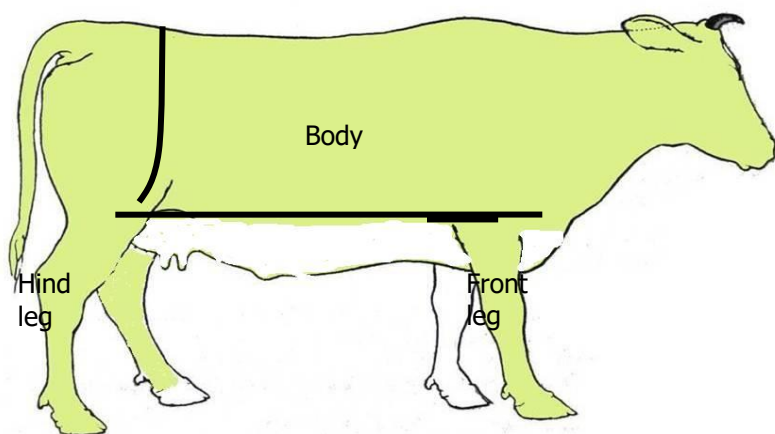
Hairless patch (see photo illustration A)

- Area with hair loss
- Skin not damaged
- Extensive thinning of the coat due to parasites
- Hyperkeratosis possible

Lesion/swelling (see photo illustrations B and C)

- Damaged skin either in form of a scab or a wound
- Dermatitis due to ectoparasites
- Ear lesions due to ripped-off ear tags

From a distance not exceeding 2m, three body regions (see photo reference) on one side of the assessed animal have to be examined to check for the criteria listed above



These body regions are scanned from the rear to the front, excluding the bottom side of the belly and the inner side of the legs, but including the inner side of the opposite hind leg.

Random side selection (left or right) must be ensured. To prevent biased results, side selection has to be done before the examination. In most cases, the side seen first when approaching the animal can be chosen.

In the case of more than 20 alterations per category only '>20' is noted. The maximum ('>20') is also given if the area affected is at least as large as the size of a hand. Where there are different categories of alterations at the same location (such as swelling and lesion at one leg joint) or adjacent to each other (for example, a round hairless patch with a lesion in its centre) all these alterations are counted.

Individual level: Number of hairless patches and number of lesions or /swellings

Score

- Percentage (%) of animals with no integument alteration (no hairless patch, no lesion/swelling)
- Percentage (%) of animals with mild integument alterations (at least one hairless patch, no lesion/swelling)
- Percentage (%) of animals with severe integument alterations (at least one lesion/swelling)

For the calculation of scores, this measure is taken into account as the total number of counts from all body regions. However, for advisory purposes, more detailed information may be necessary.

A) Hairless patches



B) Lesions

	
Score 0 © Winckler BOKU	Score 2 © Brinkmann BOKU

C) Swellings

	
Score 0 © Dippel BOKU	Score 2 © Gratzer BOKU

Cleanliness scoring

Source: [AssureWel, Beef cattle](#)

Sample: 20 animals selected at random (**3** or more assessed jointly with stockperson) plus all breeding bulls

Visually assess one randomly selected side of the animal and behind, only including the hind

quarters to coronary band and udder (or equivalent area on male animals:)

Scoring:

0 = Clean

No dirt or only minor splashing present

2 = Very dirty

An area of dirtiness (i.e. layer or plaques of fresh or dried/old dirt) amounting to at least a forearm length (40 cm) in any dimension. Do not include staining to the coat.

Sample: **20 animals** selected at random (**3** or more assessed jointly with stockperson) plus all breeding bulls

Visually assess one randomly selected side of the animal and behind, only including the hind

quarters to coronary band and udder (or equivalent area on male animals:)

Scoring:

0 = Clean

No dirt or only minor splashing present

2 = Very Dirty

An area of dirtiness (i.e. layer or plaques of fresh or dried/old dirt) amounting to forearm length (40 cm) in any dimension. Do not include staining to the coat.



Images kindly supplied by Food Standards Agency

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

LENGTH 1ft = 0.305m	LENGTH 1m = 3.281ft	AREA 1m ² = 10.764ft ²
AREA 1ft ² = 0.0929m ²	WEIGHT 1lb = 0.454kg	WEIGHT 1kg = 2.205lb
LIGHT 20 Lux = 1.858ft candle	LIGHT 0.25ft candle = 2.691 Lux	LIGHT 1ft candle = 10.764 Lux

Resource 4: Air quality score scale

- 3 Air quality: odour and dust distinctly present; observer experiences watery eyes and/or coughing.
- 2 Weak odour and dust noticeable; observer can breathe without effort.
- 1 No odour or dust; not noticeable.

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). For any medicated feed, a written prescription is required.

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

Resource 6: 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. Management of metabolic disorders (bloat, acidosis, hypocalcaemia, hypomagnesaemia, ketosis)
5. Management of problems at calving and abortions
6. Management of; foot care and lameness management; mastitis; injuries, metabolic disorders; and body condition scores
7. Management of downer cows (including use of lifting gear, type of lifting gear used, use of shackles/hobbles, and procedures applied do not cause unnecessary pain or distress to the animal)
8. Management of cows at drying off
9. Calving procedures
10. Calf management
11. Pain relief procedures
12. Health and disease incidence record-keeping
13. Written plan to respond to sudden increases in disease incidence
14. Monitoring of KPIs and KWIs, and actions planned to deal with increases in KWI or KPI levels
15. Corrective Action Plan within the health and welfare plan, to bring performance in line with good practice
16. Methods and records of euthanasia

Resource 7: Biosecurity plan

1. Emergency contact list
2. Named biosecurity persons
3. Employee training in biosecurity
4. Lines of separation (LOS) including fences and separate areas, and how they are used to protect 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 in, movement of animals out)
12. Dealing with sick and dead animals (safe, 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](#)

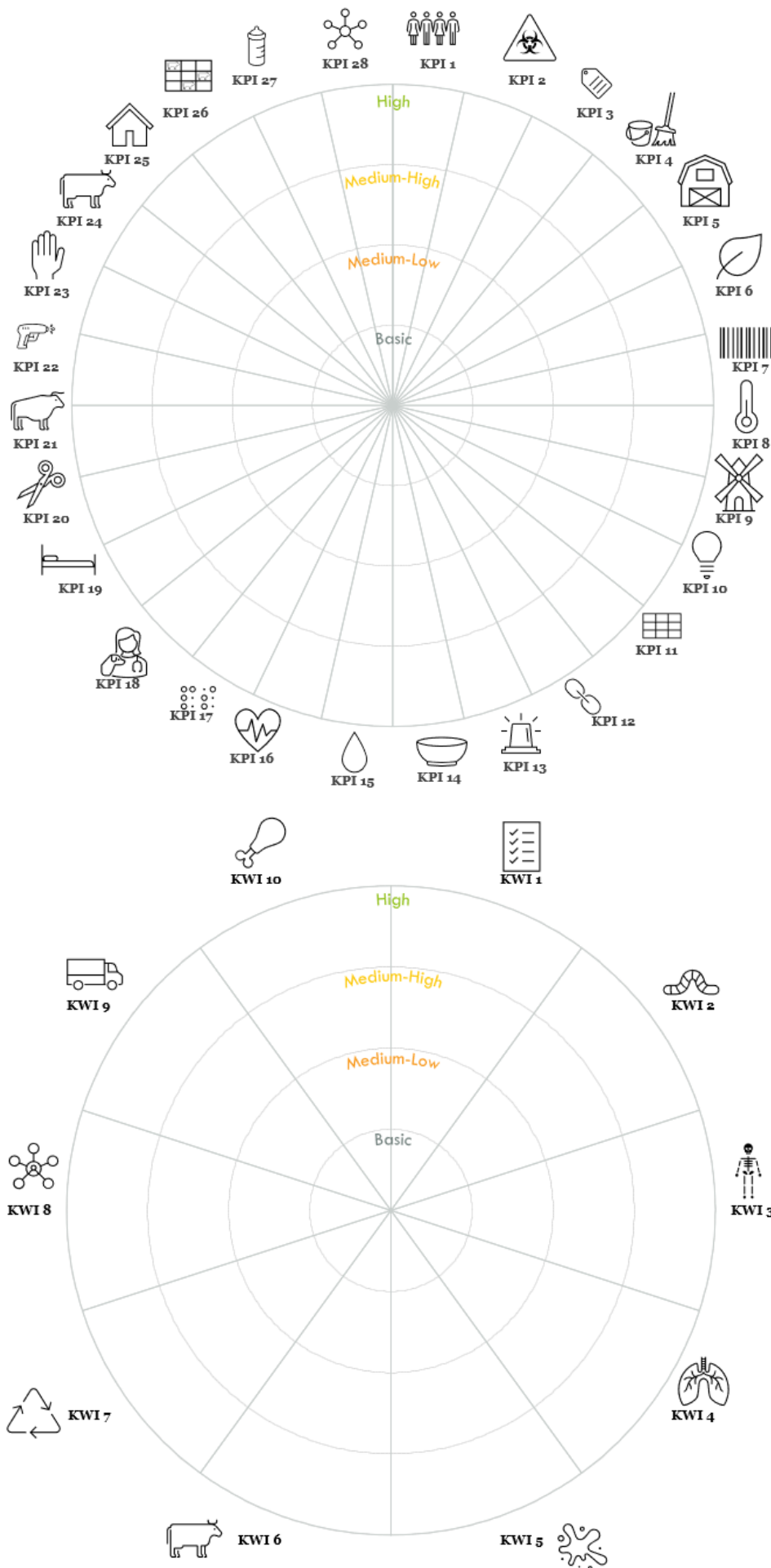
[German Animal Welfare Federation](#)

[Four Paws](#)

[AssureWel](#)

[Welfare Quality Network - Assessment Protocols](#)

Resource 9: Blank sector charts



Resource 10: Space allowances - farm and transport

Pen sizes

Calf pen size

Calf liveweight (kg)	Minimum pen area per calf (m x m)
<60	1m x 1.5m
60-80	1m x 1.8m

Youngstock pens

Liveweight (kg)	Length (m)	Width (m)
200	1.45	0.7
300	1.70	0.85
350	2.05	1.05
>350	2.1	1.10

Loose-housed systems (straw yards)

Cattle

Liveweight (kg)	Minimum bedded area (m ² per head)	Minimum non-bedded loafing area (m ² per head)	Minimum total area including bedding, feeding and loafing area (m ² per head)
<100	1.5	1.8	3.3
101-199	2.5	2.5	5.0
200-299	3.5	2.5	6.0
300-399	4.5	2.5	7.0
400-499	5.5	2.5	8.0
500-599	6.0	2.5	8.5
600-699	6.5	2.5	9.0
700-799	7.0	3.0	10.0
800 +	8.0	3.0	11.0

Calves

Liveweight (kg)	Total area including bedding, feeding and loafing area (m ² per head)
50-84	1.5
85-140	1.8
140-200	2.4

Youngstock

Liveweight (kg)	Bedded area (m ² per head)	Total area including bedding, feeding and loafing area (m ² per head)	Fully slatted floors (m ² per head)
200-299	2.0	3.0	1.1
300-399	2.75	3.95	1.5
400-499	3.5	4.9	1.8
500-599	4.25	5.85	2.1
600-699	5.0	6.8	2.3

Systems for rearing bull calves where the animals are fully house, minimum total area per head (m²)

Liveweight (kg)	Minimum total area (m ²)
<100	2.0
101-200	3.5
201-250	4.0
251-300	4.5
301-350	5.5

Feeding space allowance (minimum length in mm per head)

Liveweight (kg)	If fed a ration (meals)	Ad lib (feed present all the time)
100	350	100
200	400	150
300	500	200
400	600	250
500	700	300
600	750	350

Drinker space

Herd/group size	Minimum accessible drinker length (m)
50	2.25
100	4.50
150	6.75
200	9.00

Transport densities

Category	Weight (up to) (kg)	Area required m2 per animal
Small calves	55	0.30 to 0.40
Medium-sized calves	110	0.40 to 0.70
Heavy calves	200	0.70 to 0.95
Medium-sized cattle	325	0.95 to 1.30
Heavy cattle	550	1.30 to 1.60
Very heavy cattle	>700	(>1.60)

Resource 11: Mutilations

Mutilation	When?	Who by?
Castration: elastration/rubber ring	After 24 hours and in first week of life only	Competent stock person
Castration: bloodless castration (e.g. Burdizzo)	After 24 hours and up to 2 months of age	Competent stock person With anaesthetic
Castration: when animal is over 2 months of age	Over 2 months of age	Vet only With anaesthetic
Horn disbudding: chemical cauterisation	First week of life only	Competent stock person With anaesthetic
Horn disbudding: hot iron	Up to 5 weeks of age	Competent stock person With anaesthetic
Dehorning: cutting/sawing horn	(not to be used routinely) Up to 5 months of age	Competent stock person With anaesthetic
Dehorning: cutting/sawing horn	Over 5 months of age	Vet only With anaesthetic
Removal of extra (supernumary) teats: using scissors	Up to 3 months	Competent stock person With anaesthetic
Removal of extra (supernumary) teats: using scissors	Over 3 months	Vet only With anaesthetic

Resource 12: Published resources and further reading

Agriculture and Horticulture Development Board (AHDB): [Mobility Scoring: How to score your cows](#)

AHDB: [Lameness in cows: an introduction to the Healthy Feet Programme](#)

AssureWel: [Beef cattle](#)

AssureWel: [The AssureWel Manual: 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?](#)

BBFAW 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](#)

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

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

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

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

COUNCIL REGULATION (EC) No 1/2005 of 22 December 2004 on the protection of animals during transport and related operations and amending Directives 64/432/EEC and 93/119/EC and Regulation (EC) No 1255/97

COUNCIL DIRECTIVE: European Communities (Protection of animals kept for farming purposes) Regulations, 2000 (S.I. No. 127/2000)

Council of Europe: [Recommendation Concerning Cattle adopted by the Standing Committee on 21 October 1988](#)

Council of Europe: Treaty No. 087, [European Convention for the Protection of Animals kept for Farming Purposes](#)

DAERA (2012): [Beef Cattle - A code of practice issued under the Welfare of Animals Act \(Northern Ireland\) 2011](#)

European Commission (2015): [Animal Welfare Indicators](#)

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

Farmers Assuring Responsible Management (FARM): [Animal Care Version 4.0](#)

Farm Animal Welfare Committee (FAWC) was renamed to Animal Welfare Committee (AWC) on 1 October 2019. All FAWC reports listed here are available at the [gov.uk website](#).

FAWC advice on animal sentience (10 June 2019)

FAWC opinion on the welfare of cattle kept for beef production (11 February 2019)

FAWC: Evidence and the welfare of farmed animals – part 2: evidence based decision making (19 July 2018)

FAWC advice on sustainable agriculture and farm animal welfare (24 February 2017)

FAWC opinion on calf nutrition (26 November 2015)

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 the welfare of animals killed on-farm (29 March 2018)

FAWC opinion on CCTV in slaughterhouses (3 February 2015)

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

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

Gov UK: [Welfare of Animals at the Time of Killing \(England\) Regulations 2015](#)

[ICAR: Technical Series and Proceedings](#)

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

World Organisation for Animal Health (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: [Beef & Lamb Standards Version 4.1 \(updated 1 June 2018\)](#)

RSPCA: [Welfare Standards for beef cattle \(February 2020\)](#)

Share Action: [What we do](#)

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

Welfare Quality Network: [Assessment Protocols](#)

Welfare Quality: [Assessment protocol for cattle \(without veal calves\)](#)

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

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

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