

GOOD LIFE OPPORTUNITIES FRAMEWORK

Beef cattle

HANDBOOK



LivWel+

Livestock Positive Welfare





Positive welfare leads to a good life

Good farm animal welfare is about more than preventing harm to animals – it's about creating the conditions for every animal to enjoy life. Animals value **positive experiences** such as feeling comfort, pleasure, interest, confidence, and good health. Allowing animals to make their own individual choices is also valuable. These help them to be relaxed, content, and able to cope well, which also supports growth and productivity. Enjoyable experiences are known as “**positive welfare**”.

To date, the main focus for farm animal welfare has been on preventing suffering. This approach is captured in the “Five Freedoms” for animal welfare, which aims to make sure animals are free from hunger and thirst, discomfort, pain, injury, disease, fear, distress, and from being stopped from behaving naturally. These harmful experiences are described as “**negative welfare**” which continue to be monitored and minimised.

For welfare to be truly good, positive experiences need to greatly outweigh any negative ones.

Defra's Animal Welfare Committee (formerly the Farm Animal Welfare Council) explains this through the idea of a “good life.” They rank animal welfare on a scale:

- **Life not worth living** – mostly negative experiences.
- **Life worth living** – a mix of positive and negative experiences.
- **Good life** – mostly positive experiences.

If animals are given resources (e.g. space, companions or enrichment) they value and that allow them to feel comfort, pleasure, interest, confidence, and good health, they have the chance to experience positive welfare and live a “good life.”

Good Life Opportunity Framework - Positive welfare tiers

Using advice from experts and research from scientific studies, scientists have created a framework that shows what farm animals need to feel comfort, pleasure, interest, confidence, and good health – and therefore live a good life.

The framework has three levels, ranging from **Welfare +**, giving animals some positive experiences that are better than the legal minimum standards, to **Welfare +++**, giving animals the best possible chance for a good life, with many opportunities for positive experiences

Moving up the tiers, animals have:



- More favoured resources (from the animal's point of view)
- A greater amount of resources
- More choice in resources
- Monitoring of behaviour and use of resources, so changes can be made to give them even more positive experiences

Defining opportunities for a good life for livestock

There are five categories of opportunities for positive experiences in farm animals:

Comfort

- Comfort focuses on the animals' ability to choose an environment that is physically and thermally comfortable.

Pleasure

- Beyond meeting their basic needs, cattle gain pleasure from food – especially when they have a choice in what they eat and can carry out natural activities like foraging and grazing.
- Calves find pleasure from food when provided opportunities for suckling, and ensuring they are full when milk fed.
- Young cattle also enjoy performing pleasurable behaviours like play.
- Cattle also experience pleasure from nurturing experiences, including the close bond between mother and calf and allowing and supporting a gradual weaning process.

Confidence

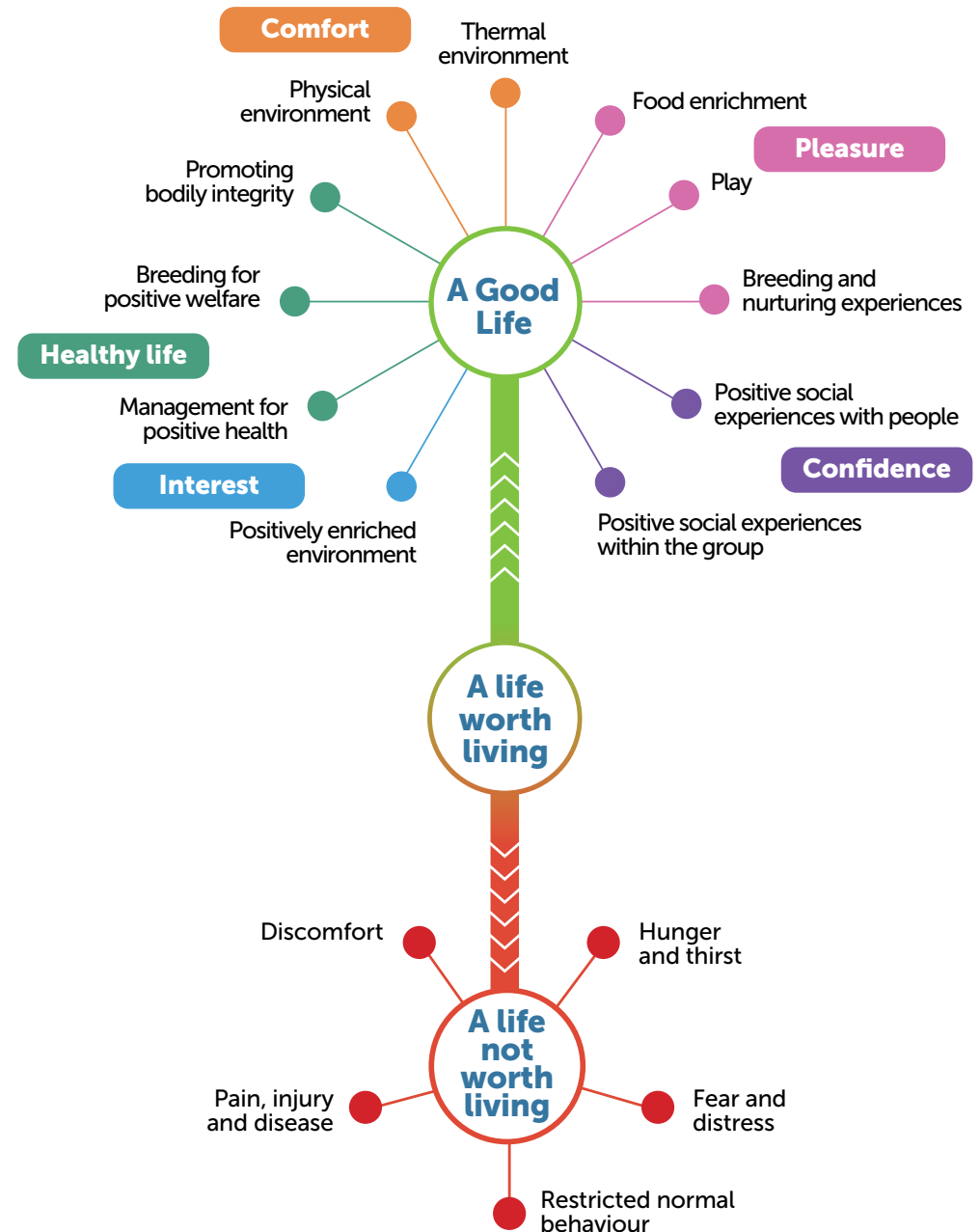
- When cattle are handled and managed in ways that help them feel safe, they can build trust with and enjoy the company of people.
- Cattle are herd animals and form strong bonds with other cattle.

Interest

- Cattle are inquisitive animals. They benefit from chances to explore, learn, show natural behaviours and make choices in a varied and interesting environment throughout their lives.

Healthy life

- A healthy life is needed for a good life with day-to-day health managed effectively.
- Long term health and welfare is positively influenced by breeding choices.
- By not removing body parts of cattle, they are able to perform behaviours that are core to their basic nature.



Comfort:

Physical environment

POSITIVE FRAMEWORK TIERS



- No cattle are tethered
- Indoors, dry and comfortable lying area consisting of solid floor (i.e. no slatted floors) and bedding
- Bedding is comfortable (compressible) and kept dry and clean
- Enough space for all animals to rest simultaneously and undisturbed
- Enough space for all animals to rest in a comfortable position
- Any cubicles are deep bedded and maintained clean and dry
- Suitable level and period of darkness for undisturbed, nighttime rest
- Access to pasture for at least part of the year (e.g. a 3 month grazing season minimum)
- At pasture, cattle can all use a sheltered, dry lying area at the same time



- All areas in the housing have solid floors
- Bedding is deep as well as clean and dry
- Loose housing is provided:
 - Cattle have free access to a bedded, unrestricted lying area
 - Cattle can lie in any orientation
 - Cattle can switch sides easily
- Access to pasture for most of the year i.e. at least 183 days



- Deformable, non slip flooring (e.g. mats) in standing areas
- Access to pasture all year round, unless extreme weather prevents this
- Enough space (13m² per animal) to choose where and with whom to rest (i.e. more than enough space for all to rest together)
- Cattle are observed and management is adjusted to optimise physical comfort, including trying different bedding types

SCIENTIFIC REASONING



Cattle prefer resting on solid, soft surfaces¹ with deep dry bedding^{2,3}, and prefer straw to rubber mats, although mats increase comfort over bare concrete flooring⁴. Cattle dislike lying in wet bedding as it decreases the quality and quantity of their rest⁵.

Giving cattle different bedding types, or periodically trying different bedding, allows animals to show their preference and provides them with choice, which is associated with positive welfare.



1. Elmore et al, 2015
2. Brscic et al, 2015
3. Ninomiya et al, 2009

4. Absmanner et al, 2009
5. Schütz et al, 2019

Physical comfort is about being able to choose a comfortable lying position, rest undisturbed, all being able to lie down together when they choose, and the quality of lying surfaces on offer.

The farmyard environment should be quiet and calm and light levels should be natural darkness or dimmed at night to ensure cattle can rest undisturbed.

Providing space for cattle to choose who to avoid or which animals to lie next to helps with herd dynamics.

Comfort: Thermal environment

POSITIVE FRAMEWORK TIERS



- Housing maintained at a comfortable temperature (e.g. fans, ventilation, blinds, etc)
- Access to an outdoor area for at least part of the year (ideally access to pasture)
- Housed cattle have some choice of temperature in the housing (e.g. cattle able to move closer to/further away from open, ventilated areas)
- Access to some shade or shelter when outside (e.g. trees, hedges, walls, portable shelters)



- Access to pasture for most of the year i.e. at least 183 days
- Access to a range of shelter types and shade intensities (e.g. trees, hedges, walls, portable shelters)



- Enough space indoors for all cattle to choose to move nearer to or further from open, ventilated areas, at the same time
- Access to pasture all year round, unless extreme weather prevents this
- Outdoors, enough shelter/shade that all cattle can use at the same time
- Cattle are observed and management is adjusted to optimise thermal comfort

Thermal comfort is about providing a comfortable temperature as well as choice of temperatures, so all animals can adapt as they prefer.

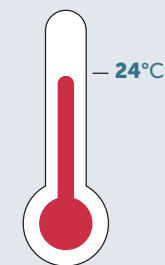
SCIENTIFIC REASONING

Thermal comfort is associated with positive physical and mental feelings. A sheltered, dry and clean lying area is important for cattle comfort: cattle will avoid lying in wet and muddy conditions¹⁻³.



Cattle prefer to escape high windspeeds^{4,5} and strong sun⁶ at pasture by seeking shelter, and prefer shade to sprinkler systems to keep cool⁷. Natural shelter is preferred when available⁸.

Heat stress risk increases from ~24°C⁸.



Providing more shaded area per cow improves thermal comfort as well as improving social interactions⁶.



1. Chen et al, 2017;
2. Dickson et al, 2022;
3. Schütz et al, 2019
4. Morgan et al, 2009
5. Fogsgaard and Christensen, 2018
6. Schütz et al, 2010
7. Schütz et al, 2011
8. EFSA, 2025

Pleasure: Food enrichment (Calves)

POSITIVE FRAMEWORK TIERS



- Calves are fed milk until at least 8 weeks old
- If not fed by the dam:
 - Calves are fed using teats rather than buckets/troughs to allow natural sucking behaviour
- Young calves are fed a milk allowance of $\geq 20\%$ of their bodyweight daily to ensure satiety
- If meal-fed, there is enough space for all calves to access milk/food at the same time



- Calves are fed milk until at least 12 weeks old
- If not fed by the dam:
 - Calves are fed milk ad lib
 - Warm milk is fed to calves (approx. 38-40°C)
- Weaning from milk is carried out via gradual reduction in milk volume
- Calves are offered solid food, including long fibre roughage, from a few days of age to reduce weaning stress (can include grass)



- Calves are fed by their mother until natural weaning

Finding pleasure from food for calves is about providing opportunities for suckling, ensuring calves are full when milk fed and providing access to fibre to transition off milk.

SCIENTIFIC REASONING

Calf rearing systems where calves are naturally reared by their dam are considered the highest ethical standard¹.



Feeling full (satiety) is associated with positive feelings of pleasure. Feeding young calves a milk allowance of at least 20% of their bodyweight ensures satiety. It is even better to provide free access (ad lib) to milk to allow the calf to control their own milk intake (both the number of feeds and the volume per feed)¹.

If not reared by the dam, then milk feeding should allow calves to perform natural suckling behaviour by feeding via a teat. The urge to suck continues for 20-30 minutes after milk ingestion and so at least one teat per calf should be left, which reduces cross sucking behaviour¹.

Gradually reducing milk volume over time at weaning to increase solid food intake helps to reduce nutritional stress. Fibre such as chopped roughage (long cut, >4cm, is preferred) is a vital component - chewing and ruminating are important to calves and helps with gut development¹.

1. EFSA 2023

Pleasure: Food enrichment (Cattle from weaning)

POSITIVE FRAMEWORK TIERS



- Enough space for all cattle to feed together at the same time
- Continual access to at least some food delivered in a way that encourages grazing behaviour e.g. access to grass, or long fibre roughage (hay/straw) when indoors



- Housed cattle are offered variety in food i.e. more than one feed/forage type (e.g. grass silage, wholecrop silage, straw, turnips, fodder beet) or variety within forage (e.g. hay made from multi species sward)
- Outdoors, cattle are offered a choice of pasture vegetation e.g. herbal/multi species sward (including grasses, herbs and legumes)

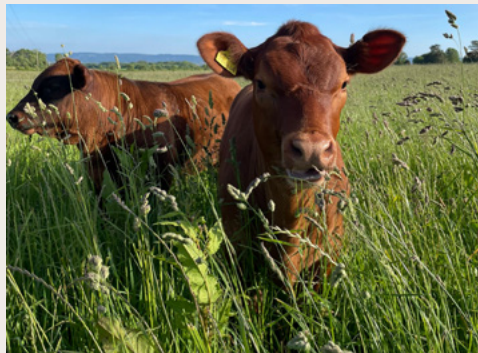


- Housed cattle are offered variety in food (more than two feed/forage types, e.g. tree hay)
- Access to browse hedges/trees in the pasture
- Feeding choices are monitored and acted on e.g. more preferred types of feed and foraging opportunities and novelty offered, within a nutritionally balanced diet

SCIENTIFIC REASONING

Finding and eating food and feeling "full" are associated with pleasure¹. Cattle are very motivated to forage; seeking out and finding food is rewarding and associated with positive feelings^{1,2}. Therefore, providing a variety of foraging opportunities is important. High species diversity in pastures encourages foraging behaviour i.e. searching for different and preferred feed.

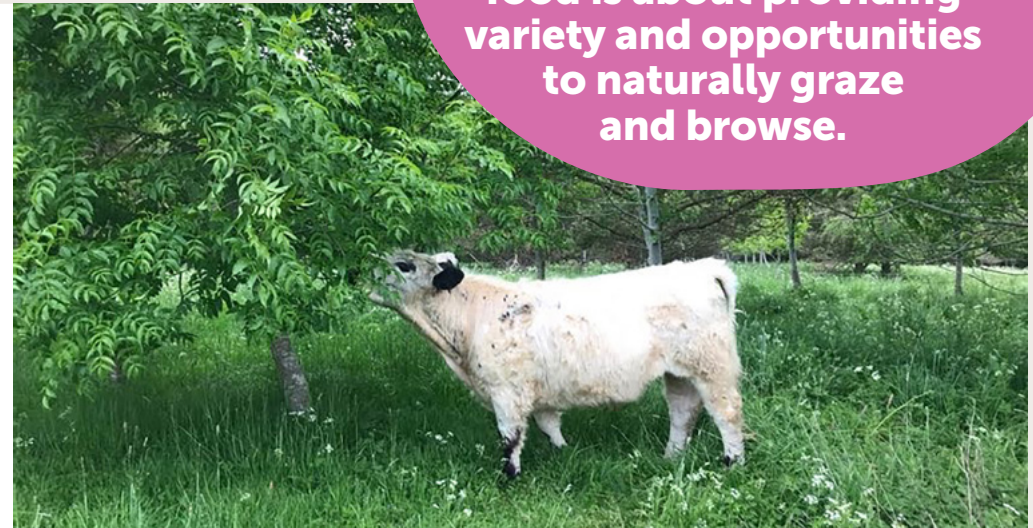
Long fibre is essential to allow cattle to ruminate. Cattle prefer legumes over grasses³.



©Phyllida Warrington

1. Mellor 2015
2. Seehuus 2013
3. Rutter 2010
4. Rutter 2008
5. Manteca et al 2008
6. Englund and Cronin 2023
7. Ramirez-Restrepo et al 2018
8. Villalba et al 2007
9. Villalba et al 2010

Finding pleasure from food is about providing variety and opportunities to naturally graze and browse.



Access to hedges and/or trees allows for choice and natural browsing behaviour, which enables self-medication to increase comfort and resilience⁷⁻⁹.

Providing more food types allows for choice and autonomy in selecting what to eat: ruminants express feeding preferences if they are allowed to select their own diet⁴, which improves health, reduces stress⁵ and is associated with positive feelings⁶.



Pleasure: Play

POSITIVE FRAMEWORK TIERS



- Calves are kept with at least one other calf to enable social play behaviour
- Calves have at least 3m² each to allow space for active and social play for at least an hour a day
- Housing has a suitable

- unobstructed area and non-slip floor for safe play
- Continual access to at least one type of enrichment/natural feature which allow opportunities for play at all times (e.g. outdoors: mounds, areas of scrub, trees; indoors: bales, replenishing straw, hanging balls, ropes, cardboard boxes)



- Calves are kept with two or more other calves to provide more opportunity for social play
- Enough space for most animals to engage in active/social play for at least an hour a day (>10m²/calf for calves 2wks-6mths in groups up to 7 animals,

- less space needed for other circumstances)
- Continual access to at least two types of enrichment/natural feature which allow opportunities for play at all times (e.g. outdoors: mounds, areas of scrub, trees; indoors: bales, replenishing straw, hanging balls, ropes, cardboard boxes)



- Calves older than 2 weeks have access to at least 20m² each for at least 1 hour per day to allow them the space to fully perform their active and social behaviour
- Continual access to more than two types of enrichment/natural feature which allow opportunities for play at all times

- (e.g. outdoors: mounds, areas of scrub, trees; indoors: bales, replenishing straw, hanging balls, ropes, cardboard boxes)
- Resources to encourage play are replenished/changed regularly to maintain novelty
- Cattle are observed and management is adjusted to increase play behaviour

SCIENTIFIC REASONING

Pleasure from play is promoted by providing plenty of space, companions and interesting features and objects.



Play behaviour is enjoyable and rewarding for young calves. Adding complexity to the environment through more natural features and enrichment items gives animals more chances interact with their surroundings. This encourages play because play helps young animals learn and develop flexibility to adapt to complex environments¹⁻⁶.

Adding more features and variety to an animal's environment gives them more chances interact, which encourages play because play helps young animals learn and develop flexibility to adapt to their environment¹⁻⁶.

Long rectangular pens and non-slip flooring provides more opportunity for running play¹.

Housing calves in groups provides a larger space and the opportunity for social play. When given more space per animal, calves show increased levels of active play (jumping, kicking and galloping) and social play (non-aggressive pushing and butting of heads, playful mounting)¹.

Calves will also play with objects (e.g. hanging balls, newly replenished straw), which need to be changed regularly to maintain engagement¹.



1. EFSA 2023
2. Ferchmin and Vesna 1982
3. Poirier 1982
4. Špinková and Wemelsfelder 2011
5. Held and Špinková 2011
6. Vas et al. 2018

Pleasure: Nurturing (Calving and the cow-calf bond)

POSITIVE FRAMEWORK TIERS



- Cows have enough space/ separate calving pens (with clean, dry bedding) to move away from the main group and remain undisturbed when calving
- Dairy Beef: Cows and calves are kept together for one day (~ 24 hours) before separation
- Suckler herds: calves are kept with, and able to feed from their own mother (or a foster cow) for at least 6 months



- Dairy-beef: Calves are kept with, and able to feed from their own mother (or a foster cow), for at least 12 weeks
- Suckler herds: calves are kept with, and able to feed from their own mother (or a foster cow) for at least 8 months



- Cows can move at least 25 metres from the main herd when calving
- Cows are provided with artificial and/or natural, sheltered, secluded spaces (e.g. hides, hedges) for calving
- Calves are kept with, and able to feed from their own mother until natural weaning

SCIENTIFIC REASONING



A cow's natural behaviour is to find a quiet, undisturbed place to calve and form a bond with her calf away from the herd¹.

Cows have a strong instinct for maternal behaviour which results in positive mental, behavioural, and health benefits to both cow and calf. Maternal care includes licking, nursing (satisfying the calf's urge to suck) and play behaviour².



©Gramplan Graziers

For dairy-beef, calves should be allowed to stay with their mother for 24 hours before separation to benefit from some maternal care but without severe separation stress from breaking a more fully formed bond².

Letting a calf stay with a foster dam can give many of the same benefits as staying with its mother, but you need to make sure the cow accepts the calf².

The benefits of access to the dam for the calf increase with prolonged contact, with natural weaning being considered the highest ethical standard for calf rearing².

Enabling pleasure from nurturing focuses on the cow's opportunity to raise her calves and the cow-calf bond.

1. Flörcke and Grandin, 2014
2. EFSA 2023

Pleasure: Nurturing (Weaning process)

POSITIVE FRAMEWORK TIERS



- Calves are kept in stable pairs or familiar groups after separation to reduce stress
- Calves separated from dams are fed from a teat, not a bucket or trough (to allow the calf to perform sucking behaviour)
- If not naturally weaned, interventions protect against stress of milk and social weaning (e.g. solid food offered, no other stressor undertaken at the same time)



- If not naturally weaned, artificial weaning is gradual (>1 week) using methods such as fence-line contact or anti suckling devices
- Some cows are left with calves at weaning to help reduce the stress for calves
- Some interventions are used to reduce the stress of weaning for the cows, (e.g. access to a bull)



- Natural weaning is carried out
- Cattle are observed and management is adjusted to optimise low stress weaning

Enabling pleasure from nurturing also focuses on a gradual and low stress weaning process.

SCIENTIFIC REASONING

Weaning is stressful due to separation of the cow-calf bond, withdrawal of milk and, often, a change in environment. Stress can be reduced by allowing some level of cow-calf contact whilst milk access is stopped, for example using fenceline weaning or noseflaps. Stress can be further reduced by gradual weaning rather than abrupt separation¹.



©Planton farm

When separated from the dam shortly after birth, although the calf may show little or no separation stress, it loses the positive benefits that cow-calf contact can bring. Separation stress is strongest after the bond is fully formed at 4 days. The bond naturally starts to decline after around 2 months. Natural weaning occurs gradually from ~6 months¹.

Stress in the dams during weaning could be reduced by allowing access to a bull.



©Phylida Warrington

Confidence:

Positive experiences with stockkeepers

POSITIVE FRAMEWORK TIERS



- Farm environment is calm and quiet
- Stockkeepers have been trained and/or are experienced in cattle handling
- Stockkeeper behaviour towards, and handling of, cattle is gentle, calm and confident, with no use of goads or hitting



- Cattle have the opportunity to associate people with regular neutral interactions (e.g. stock keepers walking and talking calmly amongst the cattle)
- Cattle experience positive reinforcement during routine handling (e.g. feeding preferred foods, scratching heads)
- Cattle have the opportunity to familiarise with stockkeepers, handling equipment and routine management
- Cattle are handled (e.g. by a person/vehicle/dog/drone etc) using low-stress principles: pressure is applied to initiate movement and released once cattle respond, allowing them to move away calmly rather than being chased
- Design and layout of handling systems encourages safe, natural and low stress movement of animals (e.g. curved races, boarded sides)



- Formal training of stockkeepers on cattle welfare and handling
- Cattle handled using positive reinforcement most of the time e.g. feed associated with vehicles/buckets/trough, calling/whistling, hand/body signals, dogs are not used
- Cattle are monitored and action taken to increase confidence around humans

SCIENTIFIC REASONING

Quiet, calm stockkeepers enable low-stress handling¹. Training stockkeepers increases positive attitudes towards cattle².



©Planton farm

Cattle show fear of people they've had negative experiences with³⁻⁵. Regular neutral interactions such as talking and slow deliberate movement can increase cattle confidence around humans⁶.

To further promote confidence, cattle should be handled using positive reinforcement (training and rewards)¹⁴⁻¹⁶.

Regular positive human contact such as talking, touching, scratching, stroking, patting, brushing and feeding treats, especially from an early age, further increases confidence shown by increased approaching of humans and relaxed, friendly body language^{4,5,7-13}.



©Gramplan Graziers

Ensuring confidence with stock keepers means handling animals in a calm, confident way. This requires good training and suitable equipment that cattle have been able to get comfortable and familiar with.

1. Waiblinger et al 2006
2. Coleman and Hemsworth 2014
3. Pajor et al. 2000
4. Munksgaard et al., 2001
5. Waiblinger et al., 2002
6. Hemsworth, 2003
7. Zulkifli, 2013
8. Jago et al. 1999
9. Schütz et al., 2012
10. Ebinghaus et al., 2022
11. Ellingsen et al., 2014
12. Mandel et al, 2016
13. Westerath et al, 2014
14. Hutson and Grandin 2024
15. Tallet et al 2005
16. Chaumont et al 2021

Confidence:

Positive social experiences within the herd

POSITIVE FRAMEWORK TIERS



- Physical environment, i.e. space, resource distribution and visual barriers, enables cattle to avoid negative interactions
- Any new cattle introduced

gradually and sensitively (e.g. initial fence separation)

- No cattle are kept alone, except for breeding bulls and those needing to be separated for health reasons, which are kept within at least sight of other cattle.



- Calves kept and reared together in the same group (from separation from cow or arrival on farm)
- Cattle are kept in groups of

familiar animals to establish and maintain a stable social group

- Any mixing/regrouping is carried out gradually and carefully (e.g. at pasture, regrouping with at least two familiar animals)



- Enough space for cattle to choose who to spend time with and synchronise behaviour
- Natural social herd structure is maintained (e.g. bull present, cows with calves for social learning)
- Minimal or no mixing of cattle (e.g. cattle remain on the same farm, within the same social group, from birth through to death)
- Cattle monitored and action is taken to reduce negative and increase positive interactions between animals

Cattle are social animals. To ensure they have positive social experiences, they need space so they can be selective and synchronised, and stability so they can form social bonds.

SCIENTIFIC REASONING

Increasing space and distributing resources (e.g. drinkers, feeders, etc) appropriately reduces competition which increases social confidence, shown by relaxed body language¹⁻³.



Cattle form and maintain bonds from a young age, so keeping familiar animals together can help form a stable, friendly herd structure^{10,11}. Benefits include companionship, social cohesion, social buffering, and social learning^{10,12} which are accompanied by calming and rewarding physiological responses^{13,14}, positive behaviours such as allogrooming, and improved mental wellbeing¹⁵.

Mixing unfamiliar animals leads to social instability, stress and increased negative interactions⁴⁻⁷. If mixing cattle is required, this must be carried out gradually and sensitively. Regrouping with a friend is beneficial^{8,9}.

Cattle synchronise their lying, standing, and feeding¹⁶. This synchronisation promotes group cohesion¹⁷⁻²⁰. Synchronised behaviour is observed more at pasture than in pens^{21,22}.

Cattle welfare experts combined best available evidence with practical knowledge of cattle behaviour and agreed that around 13 m² per animal indoors would give cattle enough room to lie and feed together, keep natural spacing between each other, and move freely without being restricted²³.

1. O'Connell et al., 1989
2. Ninomiya and Sato, 2009
3. Battini et al., 2019
4. Fielding et al., 2024
5. Sevi et al., 2001
6. Ruiz-de la Torre and Manteca, 1999a
7. Ruiz-de la Torre and Manteca, 1999b
8. Neisen et al., 2009
9. Gyga et al., 2010
10. Gutmann et al., 2015
11. Duve and Jensen, 2011
12. Papageorgiou and Simitzis 2022
13. Rault 2012
14. Miranda-de la Lama et al 2019
15. Laister et al., 2011
16. Kok et al., 2023
17. Napolitano et al., 2009
18. Mattiello et al., 2019
19. Keeling et al., 2021
20. Papageorgiou and Simitzis 2022
21. Tuomisto et al., 2019
22. Kok et al., 2023
23. EFSA 2025

Interest: Enriched environment

POSITIVE FRAMEWORK TIERS



- Continual access to a grooming object (e.g. indoors: brush; outdoors: scratching posts/trees branches)
- Continuous access to at least one type of enrichment (if indoors)/natural feature (if outdoors) for exploration, investigation and/or foraging behaviour (e.g. indoors: hay bales, hay nets, straw, piles

of logs, branches; outdoors: mounds, hills, rocks, streams, trees/woods/orchards, accessible hedges, tree stumps/ roots, logs, bales, a variety of edible vegetation)

- Access to pasture for at least part of the year (a 3 month grazing season minimum)
- Enough space to allow for natural behaviour, i.e. grazing on clean pasture



- Continuous access to at least two types of enrichment (if indoors)/natural feature (if

outdoors) for exploration, investigation and/or foraging behaviour

- Access to pasture for most of the year i.e. at least 183 days



- Continuous access to a complex outdoor environment, offering diversity through a choice of three or more items/natural features e.g. accessible hedges, tree stumps/roots, logs, bales, trees/woods/orchards, rocks, hills, streams, a variety of edible vegetation
- New items introduced regularly to maintain interest (could

include regular rotation or choice of pasture for novelty)

- Access to pasture available all year round, except in extreme weather conditions
- Quality of the pasture environment is maintained throughout all seasons (e.g. reduce poaching, bale grazing)
- Cattle monitored and action taken to provide a more enriched environment

SCIENTIFIC REASONING



Cattle are naturally motivated to explore and forage within their environment. Engaging in this behaviour is enjoyable and rewarding, especially when it leads to finding food¹.

A more diverse environment also increases the opportunity for cattle to express behavioural choice and agency, which supports positive mental wellbeing⁵.



©Nikki Yoxall

Promoting interest in cattle requires a diverse and interesting outdoor environment, or if housed, providing enrichments to increase the opportunity for grazing and investigative behaviours.

Cattle have an overall preference to be outside, particularly at night². An enriched outdoor environment allows cattle to perform a greater range of their natural investigative and grazing behaviours³ associated with good emotional wellbeing⁴.



©Planton farm

Cattle are highly motivated to access and use grooming objects, such as trees, branches, posts, or artificial brushes⁶.

1. Mellor 2015
2. Arnott et al, 2017
3. Dickson et al, 2022
4. Manteuffel et al 2009
5. Englund and Cronin 2023
6. Dickson et al, 2024

Healthy life: Management policy for positive health

POSITIVE FRAMEWORK TIERS



- Cattle health and welfare plan setting out health and husbandry activities, developed with appropriate veterinary advice, and reviewed at least annually
- Any variation in normal feeding, drinking, behaviour or physical condition of cattle given immediate attention to identify the cause
- Pain relief used as part of management of unwell/injured animals e.g. lameness/mastitis treatment
- Specific training given on medication and humane culling



- Regular dialogue e.g. every 6 months with vet or other advisors/consultants to discuss welfare
- Carry out welfare outcome monitoring in addition to livestock inspections
- Welfare outcome monitoring data used to adjust resources and/or management to improve health and welfare accordingly



- Farm staff take active part in welfare activities with wider benefits (e.g. member of peer-to-peer discussion group, scheme policy/management group, on farm welfare research)
- Daily livestock inspections in extensive systems
- Formal training given on medication and humane culling

SCIENTIFIC REASONING

Managing for positive health focuses on proactive interventions that promote health and resilience.

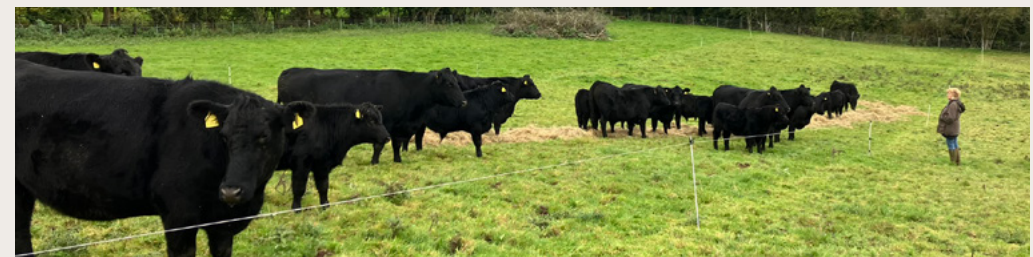


Risks to health and welfare in the indoor and outdoor environment should be monitored and controlled as much as possible. However, the absence of disease or injury is not the same as the positive aspects of good health, such as feeling well and vigorous¹.

Positive welfare includes both short-term positive experiences, as well as long-term wellbeing. Longterm wellbeing is related to resilience i.e. an animal's ability to thrive physically and psychologically within its environment², which is a proposed indicator of positive welfare³.



©Grampian Graziers



1. Mattiello et al., 2019
2. Colditz 2022
3. Rault et al 2025

Healthy life: Breeding for positive welfare

POSITIVE FRAMEWORK TIERS



- Breeding choices are made that recognise the undesirable side effects of genetic selection for production efficiency (e.g. double muscling) and attempt to reduce/mitigate for current health and welfare problems (e.g. calving ease; management ease of horned animals)



- Breeding choices are made for future herd health and welfare, valuing these EQUALLY to production parameters
- If own replacements are not home bred, feedback is given to the rearers/breeders/ breed societies/ AI companies as to what traits are important



- Breeding choices for long-term improvement of health and welfare, resilience, longevity and metabolic normality, including suitability to particular type of land/system, valuing these OVER production parameters

SCIENTIFIC REASONING



In the long term, breeding should give greater emphasis on breeds and traits related to animal welfare, health, resilience, longevity, and environmental efficiency, including those characteristics needed to thrive in sustainable systems.

Farm animals have been selectively bred with a large focus on increasing production, which is often negatively correlated with welfare¹.

Breeding choices should address key health and welfare issues by carefully selecting for better traits (e.g. avoiding hypermuscularity (double muscling) and improving calving ease) which can greatly improve the welfare of cattle².



Breeding for positive welfare means selecting the right breeds and traits to ensure a healthy life through long term positive wellbeing and resilience.

1. FAWC, 2012
2. FAWC, 2009

Healthy life: Promoting bodily integrity

POSITIVE FRAMEWORK TIERS



- No routine dehorning (removal of grown horns)
- If disbudding/castration/freezing branding is undertaken, anaesthetic AND long-term pain relief is used for all ages of cattle
- Some calves are not disbudded plus appropriate resources and management of horned animals, or use of polled genetics
- If castration is carried out, it is only done at a young age, i.e. calves not adults, due to faster recovery times
- Some bull calves are not castrated and appropriate management strategies implemented



- If disbudding is undertaken, it is carried out with additional, appropriate level of sedation
- Majority (>50%) of calves on the farm are not disbudded
- If castration is carried out, only the surgical method is used by a vet with anaesthetic AND long-term pain relief
- Majority (>50%) of bull calves on the farm are not castrated



- No calves are disbudded
- No branding is used for identification
- No bull calves are castrated

By not removing body parts of cattle, cattle are able to perform activities that are core to their basic nature.

SCIENTIFIC REASONING

Horns play several roles in cattle - defence, self-grooming, and temperature regulation¹, and so are important to a cow/bull's nature. Dehorning is distressing and painful which is not alleviated by local anaesthesia².



Pain from disbudding and castration can be reduced by anaesthesia and a non-steroidal anti-inflammatory drug (NSAID) plus long-term pain relief to mitigate chronic pain³⁻⁵.

Branding is painful and should be avoided, although freeze branding is less painful compared to hot-iron branding^{7,8} (but still painful, so pain relief must be used).

Calves can feel pain from birth, and painful procedures can produce a long-term increase in pain sensitivity⁶, so pain relief must be used at all ages.

Rubber ring castration causes long-term pain and discomfort (increased inflammation, delayed wound healing, reduced weight gain, decreased feed intake, more frequent lesion licking and reduced lying time) compared to Burrdizzo clamp or surgical castration^{9,10}. Surgically castrated calves heal faster and showed fewer signs of chronic discomfort than other castration methods¹⁰.

In other mammals, surgical castration has been found to be associated with signs of depression, suggesting that no castration improves welfare¹¹.

1. Algra et al, 2023
2. Canozzi et al., 2018
3. Stafford and Mellor, 2011
4. Casoni et al., 2019
5. Stafford, 2007
6. Adcock and Tucker, 2018
7. Lay et al., 1992
8. Schwartzkopf-Genswein and Stookey, 1997
9. Thüer et al., 2007
10. Nogues et al. 2021
11. Lin et al 2024

LivWel+ focuses on evolving farm animal welfare assessment into capturing “positive welfare” opportunities, but this sits alongside measuring and minimising “negative welfare” which can be done through AssureWel welfare outcome assessment protocols. For more information about AssureWel visit: www.assurewel.org/beefcattle

LivWel+

Livestock Positive Welfare



To find out more about the
LivWel+ project contact:
kstill@soilassociation.org

LivWel + is funded by Ocado Retail,
the Welsh Government and the Eschersheim Fund



Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government



Soil Association
Spear House, 51 Victoria Street, Bristol BS1 6AD
T 0117 314 5000
Registered charity no. 206862
www.soilassociation.org