

ANIMAL WELFARE



BASICS

OVERVIEW

Welfare is a part of the overall health of an animal or a group of animals. It is not a separate, disconnected aspect of health. The welfare an animal has affects many physiological systems in an animal and can change a physiology from homeostasis to an altered or diseased state. Welfare is a state of being; it is something animals have and it is an important component of animal health.

“Animal welfare refers to the state of the animal. Assessment of welfare includes consideration of the animal's health, behavior, and biological function.” American College of Animal Welfare definition of animal welfare adopted 2010 (http://acaw.org/animal_welfare_principles.html).

What we do to animals, how they are housed, fed and cared for, affects their welfare and health. The degree we tolerate discord to an animals' welfare is balanced in society between what we get from the animals (food, fiber, affection) and what the animals need to have for normal, or healthy, welfare. The welfare animals have in captivity is therefore a result of ethical decisions society makes; society agrees by consensus or regulation to set basic standards for the welfare of animals used by humans.

The past two decades have seen increasing concerns by animal activists followed by the general population regarding the welfare of farmed livestock. Intensified livestock production has in several instances moved away from providing housing and care that approximates animals their norms (for example, gestation stalls and battery cages are not within animals' norms) and instead causes serious discord to the welfare of the animals.

Determining the welfare status of livestock

We can assess the welfare of animals much the same way we assess the health of animals, by performing a systematic review of the areas, or systems, important to welfare.

There are two formal methods of determining the status of the welfare of animals: assessments and audits. Assessments review welfare status without requiring achievement of specific criteria while audits require animals have acceptable welfare according to set standards. Audits verify the welfare of animals on a farm; assessments review welfare. Assessments allow discussion of the welfare animals have while audits represent a yes/no process without discussion.

Welfare assessments and audits typically utilize the Five Freedoms as the areas important to welfare.

The Five Freedoms of Animal Welfare are:

- Freedom from thirst and hunger
- Freedom from discomfort

Freedom from pain, injury or disease
Freedom to express normal behavior
Freedom from fear and distress

These areas are assessed by utilizing three different approaches that focus on: 1) the animals' biological or physical attributes (behavior, physiology and production); 2) how similar the animal is to its natural environment (whether the animals live in their natural conditions); 3) the animals' affective or emotional state (pain, fear, distress, hunger).

Freedom from thirst and hunger can be assessed by determining the access animals have to water and feed. It is standard to expect cattle to not be away from water more than 2 hours and feed more than 4 hours at a time. Body Condition Scores estimate the energy status of animals and is used to assess the plane of nutrition as well as long-term access to feed.

Animals must have clean, dry, comfortable housing that provides shelter from sun, rain and snow as well as comfortable resting places. Cattle prefer dry, soft bedding to lie on. The status regarding comfort is assessed by observing sufficient shelter space and using the animals themselves to determine signs associated with discomfort and cleanliness problems. Leg and body lesion scoring systems illustrate body reactions to uncomfortable lying areas. Hair loss on hocks or other body parts indicates abrasion from hard surfaces and swelling or open wounds indicate an inflammatory reaction to the discomfort.

Veterinary medicine has traditionally focused on disease in livestock and normal physical exams can be used to determine if animals have disease or not. Pain and injury in animals have historically been overlooked in production medicine. An assessment or audit of farm welfare will determine first if the farm has a health plan to prevent disease and injury and to medically treat animals that require care (protocols for vaccinations, disease and injury detection, treatments). Additionally, the assessment will include verifying the program trains people working with animals and that the program is implemented as designed and truly prevents disease and results in providing care when needed.

An assessment of animal welfare determines if the farm uses appropriate polymodal pain management whenever a procedure that will cause pain is performed. Any procedure that causes more than a minor amount of pain must have the acute pain blocked by an anesthetic and the pain after the anesthetic wears off mitigated by an analgesic. Additionally, an audit or assessment determines that a farm does not perform unnecessary procedures such as tail docking, removal of supernumerary teats or other procedures that offer no benefit to the animal or society. Examples of painful procedures that are currently considered appropriate are disbudding/dehorning, castration and surgeries such as Caesarian section. The assessment determines that animals that do suffer from injury, pain or disease are detected quickly and that an appropriate medical response is provided.

Normal animal welfare requires that animals are able to express their behaviors as near to their natural state as possible. Livestock are herd or flock animals and must be allowed to associate with other cattle, sheep, goats and pigs. Important in this is the ability of subordinate animals to escape dominate animals. Welfare assessments and audits evaluate the housing systems and conditions to verify the animals' abilities to groom, associate and socialize, exercise and perform other normal behaviors is not restricted.

Fear and distress are antithetic to good welfare and health. Either of these conditions elicits epinephrine and cortisol responses that, if prolonged or repeated, will affect the homeostasis of

physiologies. Examples of conditions that cause livestock to feel fear, distress or anxiety include restrictive housing, heat stress, overcrowding, loud sounds or being forced to move too fast. Uses of prods to make animals move, nose-tongs as restraint and rushing cows through milking parlors are typical issues on farms that negatively affect welfare. An assessment or audit of animal welfare will determine if the farm provides a calm environment for animals (housing appropriate for the species without overcrowding and allowance for socialization, calm or low stress handling techniques) or has instances that cause distress, fear or anxiety.

Who is responsible for animal welfare?

- Veterinarians, by oath and professional codes, are responsible for the health of their patients, including welfare.
- Owners of livestock are responsible for the welfare of their animals.

Specific Livestock welfare issues

- Housing: all animals must have clean, dry and comfortable housing that allows them to exercise and congregate.
- Pain management: multimodal pain management must be used when painful procedures such as disbudding/dehorning, castration or other surgeries are performed and when animals are injured.
- Lameness: All farms must have protocols to keep hooves healthy and to treat lame animals immediately.
- Non-ambulatory care: animals that cannot stand on their own must receive medical and nursing care that includes soft, clean and dry bedding, shelter, water, feed and pain management.
- Euthanasia: animals that are suffering and will not have their suffering relieved must be euthanized immediately. Farm workers must be trained to perform on-farm euthanasia or call a veterinarian. Euthanasia techniques must conform to guidelines such as those put forth by the AABP and AVMA in the United States.
- Transportation: Animal must be healthy and fit for transport.



MISCELLANEOUS

SEE ALSO

- Managing Neglect Cases (www.fiveminutevet.com/ruminant)
- Lameness: Bovine
- Lameness: Camelid
- Lameness: Small Ruminant
- Dehorning/Cornuectomy (www.fiveminutevet.com/ruminant)
- Anesthesia: Injectable
- Anesthesia: Local and Regional

ABBREVIATIONS

- AABP: American Association of Bovine Practitioners
- AVMA: American Veterinary Medical Association

SUGGESTED READING

Hemsworth PH, Mellor DJ, Cronin GM, Tilbrook AJ. Scientific assessment of animal welfare. N Z Vet J. 2015 Jan;63(1):24-30.

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Whay HR, Main DC, Green LE, Webster AJ. Assessment of the welfare of dairy cattle using animal-based measurements: direct observations and investigation of farm records. Vet Rec. 2003 Aug 16; 153(7): 197-202.

Stull CL, Payne MA, Berry SL, Hullinger PJ. Evaluation of the scientific justification for tail docking in dairy cattle. J Am Vet Med Assoc. 2002 May 1; 220(9): 1298-303.

AVMA guidelines for the euthanasia of animals 2013 edition

<https://www.avma.org/KB/Policies/Documents/euthanasia.pdf>

AABP practical euthanasia of cattle 2013

http://www.aabp.org/resources/AABP_Guidelines/Practical_Euthanasia_of_Cattle-September_2013.pdf

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