

Animal Welfare and Its Measurement at Farm Level

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Abstract

Assessing animal welfare is vital for informed management decisions. It gauges their ability to cope with living conditions. It acts as an indicator of their well-being, encompassing both their positive and negative experiences. Poor welfare can result from failures to cope or difficulties in adapting to their environment. While suffering often accompanies poor welfare, it can exist independently, emphasizing the importance of not solely relying on subjective experiences. This article explores welfare assessment, including responsiveness, stereotypical behaviors, and animal preferences, offering insights for effective management.

Keywords: Animal welfare, importance, measurement, and limitations.

Introduction

"Welfare," as per Broom (1991), reflects an individual's state in relation to its environment, a quantifiable measure. It encompasses the individual's capacity to cope - how much effort is needed and the degree of success. Coping difficulties or failures can be linked to pain or suffering, and our ability to gauge these effects is advancing.

In essence, "animal welfare" describes how well an animal is managing its living conditions. An animal enjoys good welfare when it's healthy, comfortable, well-fed, secure, can express natural behaviors, and doesn't endure unpleasant states like

pain, fear, or distress. Achieving this entails disease prevention, veterinary care, suitable shelter, effective management, proper nutrition, humane treatment, and ethical euthanasia if needed. Keep in mind, the treatment animals receive falls under other categories like animal care, husbandry, and humane handling.

Several implications of animal welfare

1. Welfare isn't something granted to an animal; it's an inherent characteristic.
2. Welfare spans a spectrum, from very poor to excellent, indicating an individual's state.
3. Welfare measurement is a scientific endeavor, divorced from moral judgment.
4. Gauging both an animal's struggle to cope and the difficulty it faces yields insight into its welfare.
5. Understanding an animal's preferences provides valuable clues about conditions conducive to good welfare.
6. Animals employ diverse coping strategies as they navigate their environment.

These three measures or indicators for welfare measurements are:

a. Biological Functioning: This perspective links animal welfare to the ability to adapt effectively. It encompasses both (1) the effort required for an animal to cope with its environment, encompassing biological responses like body repair mechanisms, immune defenses, stress responses, and various

behaviors, and (2) the success of these coping mechanisms.

b. Affective States: This approach defines animal welfare through emotions, prioritizing the reduction of negative emotions like pain, fear, and frustration, while enhancing positive emotions such as comfort and pleasure. These fundamental emotions encompass thirst, hunger, pain, and sexual arousal.

c. Naturalness or Natural Living: This concept advocates for animals to express their innate behaviors. Some interpret this as animals being raised in environments resembling their natural habitats and engaging in behaviors typical of their species (Hemsworth, et al., 2015).

Welfare Assessment

Animal welfare has evolved into a scientific field, witnessing a surge in research. This science serves as a catalyst for enhancing the conditions of animals raised for food, involved in research, living in captivity, or serving as companions. A range of measures is employed to evaluate welfare, categorized as described by Ferguson et al. (2013) under the following headings:

1. **Resource-based Measures:** These measures evaluate the resources provided to the animals, focusing on the inputs that contribute to their well-being. Standards, such as space allowances, often come into play here, and these standards may be promoted by regulatory bodies.
2. **Management-based Measures:** Management-based measures zoom in on how animal keepers oversee the well-being of animals within their care. They scrutinize decision-making processes regarding animal welfare, resource utilization, and also examine records maintained by the managers. These records may include data on mortality, morbidity, illnesses, treatment, feeding practices, and emergency protocols.
3. **Animal-based Measures:** These measures, sometimes referred to as outcome-based measures, bypass the inputs and concentrate on the actual outcomes for animal welfare within a system. They can be applied at the individual, group, or system level. These measures include assessing an animal's physical condition (body

condition score, presence of injuries, coat cleanliness), monitoring disease states, and observing animal behavior.

The 'five freedoms,' originally developed by the UK's Farm Animal Welfare Council (FAWC, 1993) and further refined by Webster (2001), offer valuable guidelines for animal welfare. The current iteration of these freedoms is as follows: -

| Requirements for Good Welfare under Five Freedoms & Outcomes | |
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| Freedom | Summary of Requirements and Outcomes |
| 1) Freedom from hunger, thirst, and malnutrition – ready access to water and a diet to maintain health and vigour. | Requirements: Covers the basic needs - food and drinking water. Outcomes: Experiences (hunger, thirst) that animals will have and the physiological consequences that can occur (malnutrition), if this freedom is not met. |
| 2) Freedom from thermal and physical discomfort – by providing an appropriate environment including shelter and a comfortable resting area. | Requirements: Covers the need for animals to be housed or maintained in an environment that is suitable for that species. Outcomes: Experiences the animals may have from inadequate housing (discomfort), if this Freedom is not met. |
| 3) Freedom from pain, injury, and disease – by prevention or rapid diagnosis and treatment. | Requirements: Deals with the health needs of the animals. Outcomes: Animals may experience pain as a result of injury and or diseases (ill health), if this Freedom is not met. |
| 4) Freedom to express normal behavior – by providing sufficient space, proper facilities, and company of the animal's own kind– by | Requirements: Recognizes the importance to perform specific behaviors, which are important to animals. |

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| prevention or rapid diagnosis and treatment. | Outcomes: Experiences (lack of space, facilities, and company of species own kind) that animals will have and the physiological consequences that can occur, if this freedom is not met. |
| 5) Freedom from fear and distress – by ensuring conditions and treatment which avoid mental suffering. | Requirements: Recognizes that animals can experience negative emotional states, particularly fear, and that they should be protected from experiencing these states. Outcomes: Experiences (fear and distress) that animals will have and the physiological consequences that can occur (mental suffering), if this Freedom is not met. |

Benefits of Animal Welfare Assessment

- The core objective of welfare assessment is to enhance the quality of animal lives.
- Regular assessments act as sentinels to ensure that standards don't deteriorate with time, preventing undesirable practices from becoming the new norm.
- Welfare assessments serve as valuable educational tools, fostering proper standards and introducing fresh perspectives on animal welfare to those caring for animals.
- By comprehending the demands of specific welfare schemes, alternative management methods can be proposed, shedding light on aspects of animal care that may have been overlooked.
- Animal welfare assessments offer consumers of animal products and other stakeholders'

insight into the well-being of the animals responsible for these goods.

- This information can be pivotal in purchasing decisions, potentially creating a market for products sourced from animals raised in higher welfare conditions.

Limitations of Animal Welfare Assessment

- Effective animal welfare assessment hinges on the validity of the standards, benchmarks, and evaluation methods employed; they must genuinely measure aspects of an animal's quality of life.
- To foster improvement, penalties for failing to meet animal welfare standards must be sufficiently compelling, encouraging good practices and motivating the correction of subpar ones.
- The standards set for animal welfare should ensure that animals at least have a life worth living, ideally offering the potential for continual enhancement.
- Since welfare assessment captures a snapshot of an animal's life on the assessment day, a comprehensive understanding of its quality of life may require multiple assessments over time.
- These assessments often occur infrequently and can be brief, covering only a small portion of a facility, making it challenging to obtain an accurate overview of the quality of life for all animals.
- When there is only a minimal drive to improve animal welfare, changes may be implemented solely to meet inspection requirements, and only on the day of the inspection.

Conclusions

Animal welfare spans a spectrum from very poor to excellent. Welfare assessment, drawing from multiple indicators and disciplines, gauges this state. To enhance environmental conditions, it's advisable to address animals' specific needs with

standardized, simple enrichment. This assessment is a tool to ensure proper animal care and offers evidence of their current welfare status. The intensity of environmental challenges faced by animals is mirrored in their biological coping responses.

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