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Popular Article

Understanding Livestock Behavior: A Key to Successful Farming

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Animal behavior encompasses the actions and reactions displayed by animals in reaction to internal or external stimuli. These actions include various activities like feeding, mating, communication, movement, and social interactions. The behavior of animals can be shaped by genetic factors, environmental circumstances and the learning experiences they encounter.

Behavior acts as the intermediate step between recognizing a need and fulfilling it. The behavior displayed at any given time results from a variety of motivations, some of which may conflict with each other (e.g., motivations to feed and to avoid predators). The expression of behavior can be intricate and ever-changing, particularly when behavior governs interactions between individuals. It serves as an external manifestation of internal regulatory processes and plays a fundamental role in animal interactions and communication via visual, auditory, chemical, and tactile cues.

Natural behavior criterion

The standard for assessing animal welfare is the observation of natural, species-specific behaviors. The absence of such behaviors can negatively impact welfare. Natural behavior is considered crucial for ensuring animal well-being in various husbandry practices, including the management of animals in zoos. Normal and natural behaviors are synonymous, indicating that they refer to the behaviors exhibited by individuals or populations in the wild. Any deviation from these natural behaviors can be considered abnormal. Abnormal behaviors, such as heightened and prolonged fighting among unfamiliar pigs, which may be natural in wild conditions, can have adverse effects on humans and may be considered harmful.

Mistaken reliance on natural behaviour

The tigers' behavior is driven by their natural survival instincts, leading them to engage in activities like predator avoidance and fighting. In their natural habitat, tigers usually lead solitary lives, and this tendency



is also evident in most zoos. However, when kept in captivity, tigers appear to fare better when housed in pairs rather than being solitary, as they willingly display prosocial behaviors.

Abnormal behaviour

An atypical behavior, which either strays from its natural expression or does not occur in the wild, and is considered problematic.

Savaging

In captive settings, mother pigs (sows) exhibit aggressive behavior towards their own piglets shortly after giving birth. This behavior is not observed in the wild and could be associated with the absence of certain natural behaviors, like nest building, which would normally occur before birth in their natural environment. The limited opportunities to perform these natural behaviors in captivity might contribute to the occurrence of this unusual aggression towards the newborn piglets.

Concept of behavioural needs

For laying hens, nest-building behavior is an essential requirement that satisfies their innate urge to create a secure and cozy space for laying eggs. Nevertheless, in barren environments where appropriate materials for nest building are absent, the hens' behavioral needs are not properly fulfilled. Consequently, they may resort to alternative behaviors such as feather pecking.

Types of Abnormal Behaviour

Redirected behaviour: Stereotypical behaviour; Sham behaviour; Self-directed harmful behaviour and Learned helplessness behaviour.

Redirected behaviour

Behaviour that is redirected towards a group member rather than a more appropriate target. Feather pecking and cannibalism (hens); fin chewing (farmed fish); tail and ear biting (pigs); belly nosing (pigs) and cross sucking (calves).

Stereotypical behaviour

Apparently functionless and repetitive behaviour seen in many species in unstimulating environments. Pacing in zoo and performing animals; biting of fittings in stabled horses; biting of bars in sows in gestation crates.

Sham behaviour

Behaviour performed despite the absence of substrates to allow its proper execution. Dust bathing movements in poultry in cages that are devoid of substrate; nest building movements in sows in environments lacking litter; courtship responses and displays directed at inanimate objects.

Self-directed harmful behaviour

Self-mutilation in response to severe stress. Excessive grooming, licking and biting at limbs in dogs, laboratory rodents and other species; feather plucking in parrots.

Learned helplessness

Failure to show a behavioural reaction to on-going physical injury because of a prolonged inability to control the environment. Pigs that are the victims of severe tail biting; hens that are the victims of severe feather pecking.



Behavioural expressions and animal management:

Pigs should be provided with sufficient materials to exhibit basic nest-building behavior before giving birth. Additionally, they should have enough substrate to engage in rooting and exploring activities to fulfill their natural instincts.

Handling

Reducing fear during the handling process can lower the chances of harm to both humans and animals, enhance handling efficiency, and lead to improved livestock productivity and reproductive performance. Cattle handling serves as an illustrative example, as cattle exhibit fear of unfamiliar situations or locations and dislike being socially isolated.

Fear in cattle is demonstrated through vocalizations, defecation, becoming physically immobile and rigid, kicking at perceived threats, and attempting to escape through running and jumping. These behaviours become particularly noticeable when a human enters the animal's "flight zone." The flight zone refers to a protected space around the animal, and when a person enters this area, the animal will withdraw or move away in response, with associated risk of injury. In addition to human behaviour, it is also critical that the physical handling systems themselves are designed using knowledge of how animals have evolved behaviourally to respond to threats.

Species that have historically been preyed to exhibit heightened vigilance even in domesticated settings and will react by withdrawing from sudden stimuli like unexpected noises or movements. Therefore, handling systems should be designed to be quiet and free of objects that might be moved by the wind. The orientation of the handling system should facilitate livestock's tendency to return towards their point of entry, rather than working against it. During health treatment, the animals should be offered a clear view of systems exit and path back to their familiar environment. Herbivores show less fear when handled together with other animals rather than in isolation. Moving two animals that have a calming influence on each other is often quicker, easier, and safer than handling a single animal. These principles are increasingly being adopted in progressive farms and abattoirs.

Conclusion

Behaviour is the way animals interact with and communicate in their environment. Alterations in behaviour can be influenced by the availability of food and the presence of predators. Abnormal behaviour can result in harm to humans, the animal itself, or other members of its group. Such abnormal behaviour arises from a disconnect between the animal's needs and the resources provided by the environment or the animal's inability to control its surroundings. Knowing what causes fear in animals and how they naturally respond to threats can aid in reducing stress during handling, leading to a smoother and safer process. Skilled animal handlers apply their knowledge of animal behaviour effectively.

