Global Conference on Animal Welfare: an OIE initiative

TOPIC: Applying science to animal welfare

TITLE: Injury and disease

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ABSTRACT:

Any injury or disease inflicted on an animal will to some degree be a tax on the animal's capabilities of optimizing its being according to its desires, as well as its output from an evolutionary perspective. From an animal welfare point of view, it is important to know what effect different injury and disease has on the animal's feelings as well as its capabilities of a future good life.

Injury is usually associated with pain, which can be regarded as a negative feed back signal that guides the animal to keep the area injured from pressure or manipulation, thus improving the healing process. Similarly, a disease where the animal has to use substantial resources, e.g. its immune system, to conquer the disease, is probably also linked to other negative feed back signals that will reduce the animals activity levels. Thus, the observation of injury and disease can be regarded as an important tool to evaluate the animal's condition from an animal welfare point of view.

Injuries or diseases might occur as a result of poorly designed floors, unsuitable bedding material, poorly designed fittings in animal houses, transport vehicles or abattoirs. Further, disease might result from poor climatic conditions, poor sanitary conditions or as a result of poor hygienic practices. Injuries could also be caused by poor management practices where e.g. unacquainted animals are mixed together and as a result aggression causes wounds. Another example is when animals are weaned at a very early age and suckling behaviour is redirected towards pen mates with injury as a result. Injuries might also be a result of poorly applied harnesses or improper tying up of animals.

Not only environmental or management conditions affect the occurrence of injury and disease but also genetics might play an important role, e.g. in leg weakness in broilers which show different prevalence between different breeds.

Because there is a close connection between injury and disease on one hand and welfare on the other, the monitoring of the occurrence of injuries and disease are potent tools for the monitoring of animal welfare. Injuries and diseases can be looked upon as factors

showing the present welfare state of the animal, but they can also, to some extent, be viewed as showing the animal's welfare status integrated over a certain time period.

The presence of an injury or a disease can be regarded as an instantaneously accessible evidence of the animal's welfare state why it is favourably used in welfare monitoring programmes. Injury and disease is relatively easy to score compared to behaviour on commercial farms as signs of animal welfare. There are examples of such national animal welfare programmes which uses clinical scoring and also scoring on slaughtered animals. A systematic recording of a combination of suitable parameters of injury and disease has the potential of providing trustworthy information about the level of animal welfare to authorities, industry and consumers.