

# HOCHSCHULE OSNABRÜCK

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## Knowledge-based animal welfare discussion by integrating microbiological feed analyses - using straw as an example.

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### Introduction

Animal husbandry methods also play an important role in public discussion, as animal welfare is often valued in society by visual perceptions.<sup>2,5</sup> In this context, there is often an idealized idea of livestock husbandry and nutrition, which is staged by ideal-typical images. In the minds of many citizens, nature-loving images trigger a positive imagination that results from the longings of urban living conditions.<sup>1</sup>

### Material und Methods



**Media and Stakeholder Analyses** indicate that the use of straw in livestock husbandry and nutrition also has a positive impact on the welfare of livestock.

„In comparison, the straw barn is rated as much more natural and animal-friendly. Even the sad or cheerful expression of the pig in the stable does not change this”.<sup>4</sup>

**top agrar**  
(Quote on the study pigs on straw look happier).

Media Stakeholder

“ (...) because animal welfare, in my opinion, is not necessarily normal animal welfare, but it always goes in the direction of what consumers understand, with a petting zoo and every sow has to be kept on straw.”

Media Stakeholder

„In comparison, the straw barn is rated as much more natural and animal-friendly. Even the sad or cheerful expression of the pig in the stable does not change this.”

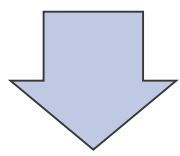
➤ According to this, straw is preferred by the public for more animal welfare.

- **But** what is not considered is the fact that the straw must be of impeccable hygienic quality.
- Fungal infestation and the formation of mycotoxins in straw can cause diseases in livestock with consequences for animal welfare.<sup>3</sup>

The first evaluation of a perfect straw quality also takes place in science through sensory tests, i.e. through smell, grip, colour and impurities.<sup>3</sup>



Only in the case of abnormalities in the sensory tests are further examinations indicated, such as microbiological examination procedures.<sup>3</sup>



The hygienic properties of straw were examined on the basis of these assessment criteria.

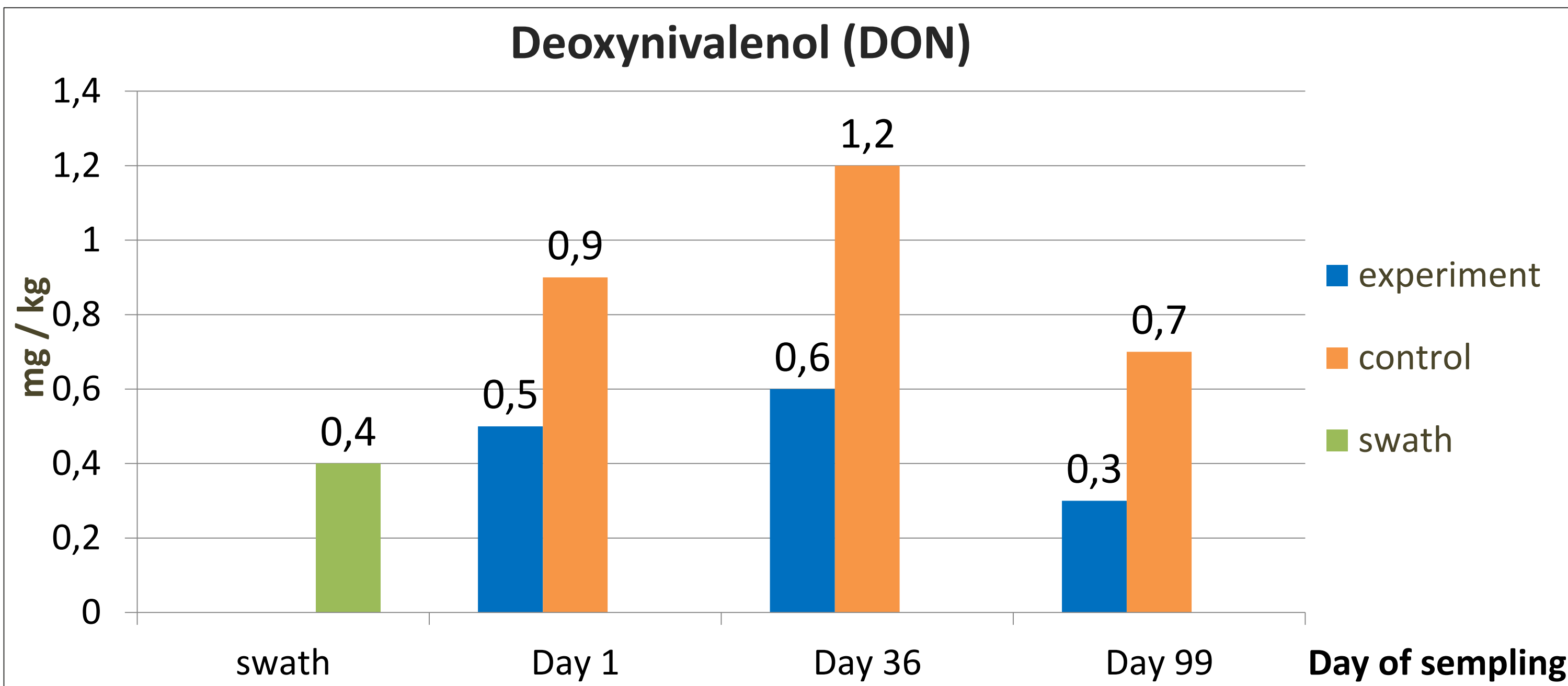
In addition to the microbiological-hygienic tests, the sensors of the straw were also tested.

### Results

- The results show: No abnormalities in the **sensory examination** of the hygiene status.
- However, the **microbiological-hygienic** investigations showed that the straw had microbiological as well as mycotoxin loads above the orientation values.



- This was to observe an impeccable hygiene status.



- This can have negative health effects, such as diseases for farm animals.

### Conclusion

The scientific results led to the conclusion: The public discussion about animal welfare, which is often conducted primarily on the basis of visual impressions, could gain in scientific resilience if it includes objective results such as microbiological analyses in addition to images in order to evaluate animal welfare in livestock farming.

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