

Project *brief*

Thünen Institute of Organic Farming

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Teaching and learning courses aim to strengthen animal welfare expertise in vocational training

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- **Welfare-oriented occupational competence involves knowledge about animals and their needs, skills in handling animals, and empathy towards them.**
- **Lameness, injuries, body condition: many problems can only be identified by direct observation of the animal.**
- **Access to a free online learning platform is available, featuring a range of teaching and learning units, lesson plans, and an information repository (infothek).**

Background and objectives

Epidemiological studies, such as PraeRi (2020), show a clear need for improvement in some areas of animal welfare in the agricultural sector. A precondition for this is the promotion of animal welfare-oriented decision-making skills among livestock farmers. This includes knowledge about the animals and their needs, skills in handling animals, as well as an empathetic and responsible attitude towards animals.

The aim of the project was to (further) develop innovative teaching and learning units within inter-farm training courses that give learners a clear understanding of animal welfare. With a focus on deepening the knowledge about the natural behaviour of cattle and pigs and their specific needs, improving apprentices' animal observation and diagnostic skills and also promoting their interest and willingness to engage with the topic. Due to the increasing use of technology and digitalisation in animal husbandry, it is important to create awareness for animal welfare issues so that apprentices can develop the necessary skills to act accordingly.



Approach

Existing animal welfare tools were collected and reviewed and a survey was conducted among farmers, registered as agricultural instructors for cattle and/or pigs in Lower Saxony. Afterwards, we developed and tested teaching and learning units together with our project partners - the Agricultural Education Center in Echem (LBZ Echem) and the Institute for Vocational Education and Adult Education (IfBE) at Leibniz University Hannover.

Results

The majority of the 340 farms, that were registered as agricultural instruction farms with the focus on cattle and/or pigs, use existing data as an animal welfare tool. Tools that use animal-based indicators, measured directly on the animal,

were used significantly less often. Therefore, it can be assumed that the majority of apprentices have no experience with animal-based indicators, such as lameness, injuries, body condition, dirtiness, etc., in the course of on-farm self-assessment. Therefore, these assessments of animal-based indicators should be implemented in inter-farm training courses.

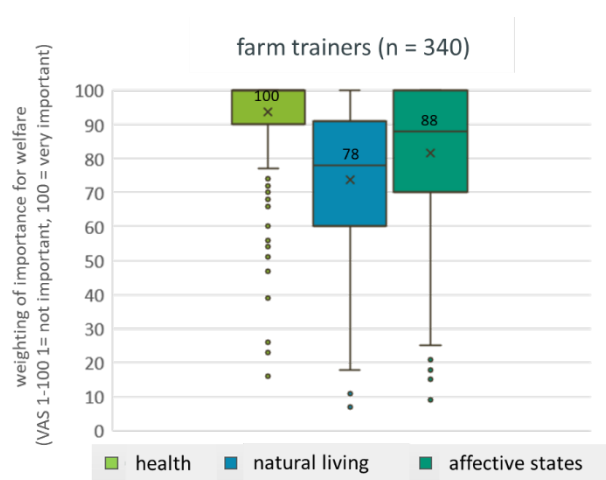


Figure 1: Agricultural instructors' understanding of animal welfare: rating of the three welfare dimensions a) animals health and functioning, b) natural living and c) affective states on a visual analogue scale (VAS) from 1 = not important to 100 = very important (number in boxplot = median, cross = average) (source: own illustration)

With regard to agricultural instructors' understanding of animal welfare (see Figure 1), it became apparent that aspects of animal health were considered very important, while aspects of affective states and in particular, the natural living of farm animals were given less weight.

Based on our findings and previous work, we developed a conceptual framework for teaching and learning units (see Figure 2).

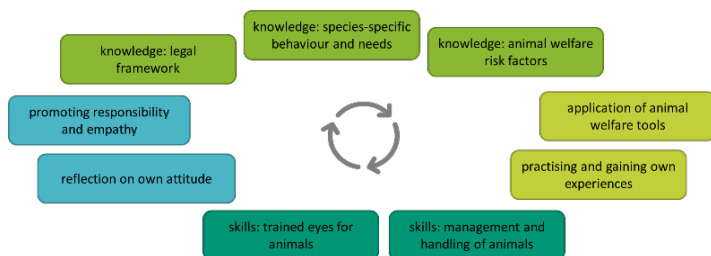


Figure 2: Conceptual framework for the design of teaching and learning units (source: Tierschutzkompetenz-Consortium)

These include the following topics:

- Basics about animal welfare (all farm animal species)
- on-farm self-assessment of animal welfare
- herding and loading of animals
- handling sick and injured cattle and pigs (including transportability and emergency killing)

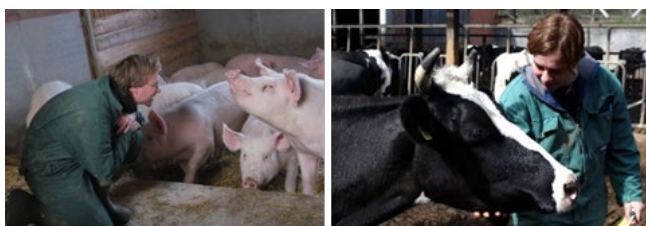


Figure 3: The teaching and learning units focus on cattle and pigs (sources: BOKU Wien, Ebinghaus/Uni Kassel)

Aspects of the species-specific behaviour of cattle and pigs were integrated into the teaching and learning units in such a way that requirements for the housing environment can be derived from them and directly linked to animal based indicators. This enables apprentices to acquire and refine skills in handling and herding animals.

Selected animal welfare tools were integrated into the teaching and learning units. In addition, an infothek with further animal welfare tools was created:

https://gruenetalente-niedersachsen.de/iliase.php?baseClass=ilrepositorygui&ref_id=1679

The teaching and learning units were developed by the project consortium within the inter-farm courses of LBZ Echem, but are available online for free to all other training institutions and other interested parties at:

https://gruenetalente-niedersachsen.de/iliase.php?baseClass=ilrepositorygui&ref_id=159

In addition to the implementation at all inter-farm training centres, the units can also be utilized in vocational schools, master classes, on-farm training or as part of agricultural or veterinary studies.

Conclusions

All lesson plans and the content provided are intended as recommendations. Teachers are invited to use the units in their entirety or in parts and, if necessary, to adapt them for their specific teaching requirements.

In addition, the freely accessible infothek with further animal welfare tools offers an opportunity for all interested parties to expand their knowledge on animal welfare.

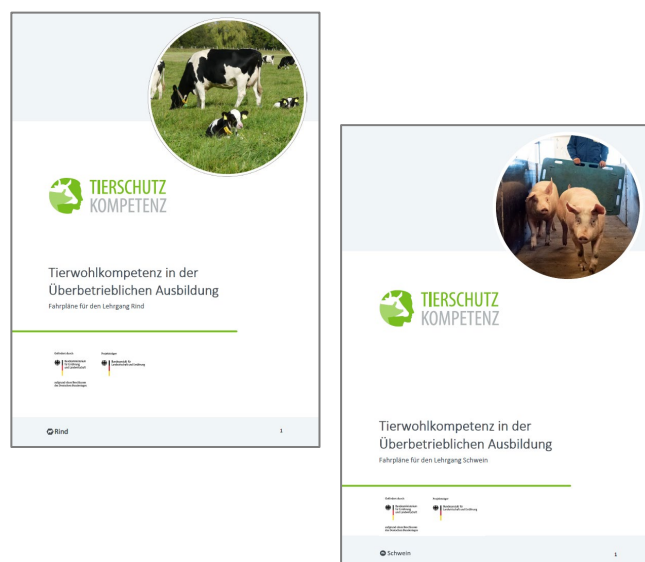


Figure 4: The lesson plans for cattle and pig courses contain the sequences of the teaching and learning units as well as brief explanations of the technical background and the suggested methods. (Quelle: Tierschutzkompetenz-Consortium/Databay AG)

Further information

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Publications

free access to teaching-learning units, lesson plans, infothek, glossary:

https://lwk-niedersachsen.iliasnet.de/iliase.php?baseClass=ilrepositorygui&ref_id=159



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