

“Cows and more – what the cows tell us ...”

Systematic classification, evaluation, advice

Abstract

The aim of the project “Cows and more” was the development of an expert system with which it is possible, using animal and behavioural criteria, to discover weaknesses in husbandry and management in freestall dairy barns. The digital root-cause analysis is based on a comparison of the individual farm with defined goals and comparison values of a specific dataset. Moreover, scientific model calculations concerning animals, husbandry and management are used.

Through the digital collection of data with a touchpad, technical production advice in the dairy industry will be further optimised. The objective and systematic collection of criteria and indicators in relation to behaviour, disposition and metabolism of dairy cows, a standardised root-cause analysis will identify weaknesses. The software will allow the further development of important approaches to optimisation.

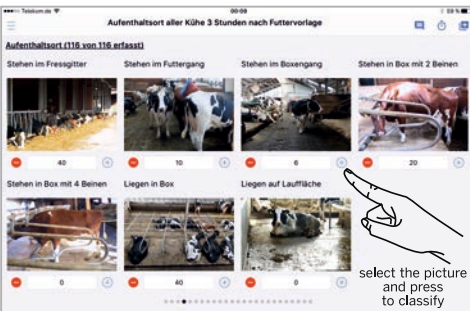
Approach to analysis of weak points

1. Objective and systematic detection of animal-related parameters, the stable construction and management.
2. Data are analysed using the evaluation software locally and graphed comparison with reference values.
3. Detection of weak points and their attitude related causes.
4. Concrete recommendations for improvement of housing conditions.

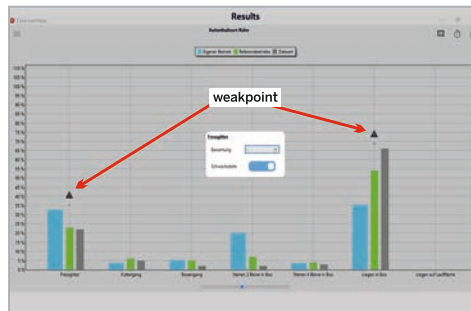


Recording

The image-assisted system “Cows and More” provides several logically structured input form for different assessments. The screen displays the corresponding rating area (Boniturbereich) and the rating steps (Boniturstufen) appear in understandable images. The assessment can be made by selecting the corresponding image.



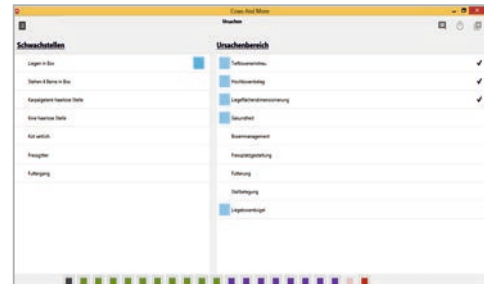
Evaluation



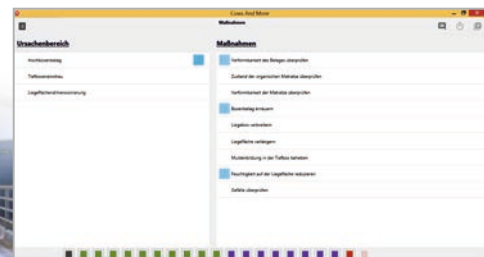
As a part of the evaluation, undesired deviations are marked as weaknesses in the evaluation graphs by the user. The program selects the weak point corresponding to the selected specific causes.

Reasons and measures

The selected weak points are listed by the program with the corresponding causes. The user can choose which cause fits the operation.



The user can then match measures to the selected causes.



Conclusion

With this advisory instrument, all stakeholders are provided with an tool for root-cause analysis with which qualitative and quantitative criteria of animal behaviour and disposition are able to be objectively and systematically collected and analysed.

Using the results, uniform evidence-based recommendations for optimising the barn environment and management can be made.

