

## Scoring animal welfare

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Animal welfare and animal protection are essential criteria for our society in the qualitative assessment of food. The consumer combines healthy food from a food production according to the requirements of animal welfare. This requirement also applies to the keeping of our animals in stables.

Farmers are obliged to keep documentation on the condition of their herd. Farmers must already record animal welfare indicators as part of their own on-farm controls. In order to properly classify the results of the self-check, the livestock owner must be provided with evaluation criteria (target and threshold values). From these requirements it was interesting to carry out a screening of the current state of the Bavarian dairy farms. For this purpose, the classifiers of the Bavarian State Institute for Agriculture recorded in the year 2017 over a period of eleven months the characteristics of integument damage to the ankle joint, locomotion and contamination of the animal. The recording took place within the routine of linear type classification, on a five-step scale. The data were collected from cows for the linear exterior evaluation and were thus taken from a random sample. Within the project 29636 Fleckvieh cows in 6068 farms were evaluated according to these animal welfare criteria. The classification takes place according to the specifications of the definition in the classes.

In addition, information on farm management was also related via the LKV. An important aspect of this investigation was the type of stable. A total of 20 different stable construction variants were distinguished. For a simplified presentation, the walking stables were grouped together according to the high boxes or deep boxes systems and the various forms of fixed stables were also grouped together. The influences of the herd size and the milk yield of the farm were also investigated.

The existing systems of linear description in Fleckvieh and Braunvieh are based on the influence of life time. Therefore, it was interesting to investigate the relationship to the standard characteristics in the available data.

The evaluation of the stable construction variants shows clear differences. The critical evaluations of the features Integument and Locomotion with the numbers 1 and 2, are clearly lower in barns with deep boxes, compared to the variant high box. Planar floors have advantages over clefted floors. With the Integument feature, the conditions in the fixed stalls are no worse than in the barns with high boxes. The critical scores are about the same here. The characteristic contamination shows a worse picture in the fixed stables than in the walking stables. Here, the proportion of scores 1 and 2 is almost 50%. With increasing number of cows and herd performance, the animal welfare criteria were evaluated with a higher score.

An examination of the animal welfare criteria locomotion and integument in connection with the traits feet and legs shows that the breeding procedure also leads to more animal welfare. All individual characteristics and the main trait for feet and legs have positive correlations to the experimental characteristics. The Locomotion trait, which is officially recorded in the Holstein breed, is indirectly improved in Fleckvieh breeding. Animals with correct and functional legs show less Integument damage and run better. A breeding improvement of the foundation already has positive effects on animal health and welfare.

The collection of animal welfare indicators in the context of linear scored type traits makes it possible to produce comprehensive data material in a relatively short period of time. This provides a good overview of the situation in the various husbandry and production methods as well as in the various intensity levels in milk production. The clear separation of control tasks or even sanctions is important here, as in this case an objective and comprehensive performance test for exterior characteristics would be considerably more difficult.