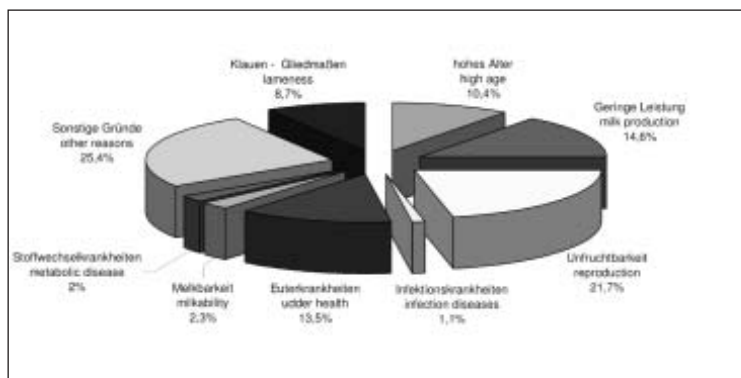


Walking Surfaces and Claw Care

Results of a Survey from Bavarian Dairy Farms

With an increasing number of freestalls in the dairy cattle husbandry, claw and limb health has become worse. This is especially important in freestalls, because the cows spend almost half of the day standing. Due to various factors, which influence claw health, regular claw care and walking surface condition are very important. This contribution gives an overview of the kinds of walking surfaces, as well as the frequency and costs of the claw care on Bavarian dairy farms.

Fig. 1: Distribution of culling reasons for dairy cows in the responding Bavarian dairy farms in the year 2004



In the course of the last 25 years freestalls have become the prevailing housing system in dairy cattle husbandry in Germany. This improved housing conditions for dairy cows and heifers in many dairy farms considerably, however not the claw health. Contrary, lameness is the third most common reason of culling after infertility and mastitis and this with a rising tendency. At present the percentage of culling cows because of claw and limb health problems is about 9.2 % in Bavaria [1] as also nationwide in Germany [2]. The consequences of claw damage are even more dramatic for the animal in freestalls than in tie stables, since only claw-healthy cows visit the individual functional areas (like feeding area and watering place, milking box in case of the automatic milking systems) in the necessary extent.

To have an overview about the kind of walking surfaces as well as about the claw care and costs of claw care in Bavarian dairy farms, the Institute of Agricultural Engineering, Building Industry and Environmental Technology in co-operation with Bavarian Association for Animal Recordings carried out a survey about walking surfaces in Bavarian freestall dairy farms, with the help of a questionnaire. From around 8.000 questionnaires returned, 4.665 dairy farms could be included in the examination of the claw care and health subject into the evaluation.

Distribution of walking surfaces

The soft pasture soil corresponds best to the claws, because the whole claw sole is loaded

evenly and no punctual high pressures arise. Next to these ideal conditions come straw bedded surfaces and surfaces covered with rubber. Results of the survey performed in the autumn 2004 show that the majority (84.0 %) of the evaluated dairy farms has slatted floors. Only 10.6 % of the dairy farms has solid walking surfaces and in 5.4 % of dairy farms mixed walking surfaces were installed. Within the slatted floors group slats dominate, namely triplet slats and waffle slats. Within solid walking surfaces, concrete and mastic asphalt prevail. In the last years also newer technical developments such as rubber on solid or on slatted floors are used in individual dairy farm. A positive influence on the claw health and the behaviour of the cows is attributed to rubber floors, compared to conventional floors.

Culling reasons

The average culling rate of dairy cows from the herd is about 33,8 % in the responding dairy farms. The most frequent reason is reproductive inefficiency (Fig. 1). Claw and limb problems with 8,7 % take the fifth place under the culling reasons. However, lameness often produces other problems. If the cows cannot move well, usually also the feeding behaviour is disturbed. Cows eat larger quantity of feed (frequently also higher doses of concentrate) at once or other extreme occurs, they eat too little. As a consequence metabolic problems can occur, reproductive inefficiency can increase and milk production decreases.

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Keywords

Walking surface, dairy cows, claw care

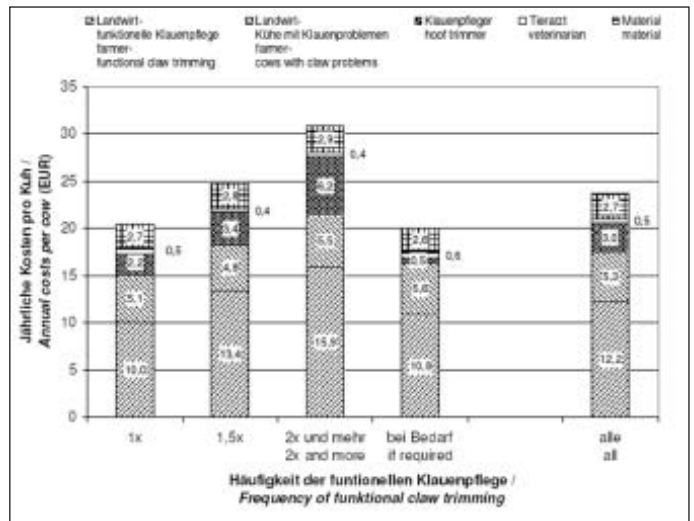
Frequency of functional claw trimming

Regular claw baths and regular functional claw trimming (usually two times yearly), claw control and claw care are essential measures to keep claws and limbs healthy [2]. In a large number of responding dairy farms the functional claw trimming is performed only once (35.0 %) to 1.5 times (14.8 %) per year. Twice yearly it is performed only in 23,3 % of the responding dairy farms and more than twice per year only in 2,7 %. Almost 24.3 % of the dairy farms makes no regular functional claw trimming and trims the claws only if required. This is not problematic, if the necessary treatments are performed on time.

Treatment of cows because of claw problems

Except one dairy farm, all responded that apart from the functional claw trimming of all animals they have to extra treatment of some cows because of claw problems. The largest number of extra-treated cows is in dairy farms performing functional claw trimming once per year (Fig. 2). The smallest culling rate of the cows because of claw problems is in dairy farms with no regular claw trimming, only if required (8.2 %). In the remaining dairy farms (with regular functional claw trimming) the culling rate because of claw problems was 9 % independent of the frequency of the claw trimming. However, herd milk production in the responding dairy farms with different functional claw trimming frequency is at a very different yield level (Fig. 2), corresponding to different stress and needs of the cows. With increasing milk yield a higher frequency of the functional claw trimming per year is observed. Probably without these measures the culling rate, because of claw and limb problems, would be significantly higher. Functional claw trimming once yearly in comparison with only if required, the latter seems to be more effective.

Fig. 3: Annual costs of claw trimming per cow at different frequency of functional claw trimming



Persons executing claw care and annual costs

In the majority of the responding dairy farms (65.1 %) the functional claw care and as well as the treatment of the cows because of claw problems are performed only by the farmer. Only in 4.0 % of the dairy farms this is done by a claw trimmer and in 0.6 % by a claw trimmer or by a veterinarian. In the remaining dairy farms (30.6 %) the functional claw trimming and the treatment of the cows with claw problems is performed by a farmer together with a claw trimmer. Whereas the functional claw trimming is still relatively frequently performed by a claw trimmer (in 17,5 % of the responding dairy farms), for the treatment of the cows with claw problems this is done only in 4.4 % of the responding dairy farms.

The annual costs of the claw care according to specification of the responding dairy farms are 23.7 € per cow (Fig. 3). 1.18 hours as work time per cow and year were indicated for claw care. If 15 € per hour (machine ring acc. rate) are assumed, there would be annual costs of 17,5 € per cow. The annual costs per cow for the claw trimmer are 3.0 €

and for the veterinarian 0.5 €. In addition there are costs of 2,7 € per cow and year for material. Altogether cash relevant costs sum up to 6.2 € per cow and year for the functional claw trimming and treatment of lame cows. The highest annual costs for the claw care per cow are in the dairy farms, where the claw care is performed by the farmer together with claw trimmer and veterinarian and the lowest, where only the farmer performs it.

The results show that claw care is of importance to most of the responding farmers. This is indicated by the lower average culling rate of cows in the responding dairy farms than for the average of Bavaria in the year 2004. Apart from the direct claw care also the care about the claw health of the animals in the preceding and surrounding areas of the milk production, e.g. for heifers and dry cows, is very important [2]. This means to create equal and particularly equal good housing conditions within all areas, i.e. from the rearing to the dairy cows [2].

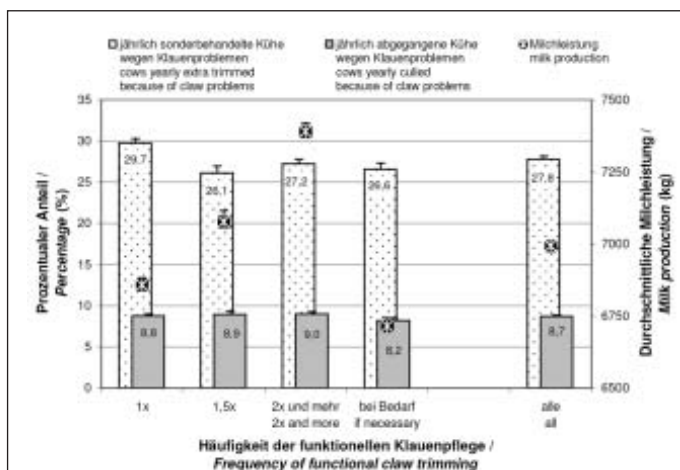


Fig. 2: Percentage of annually extra trimmed and culled cows due to claw problems and average milk yield at different frequency of functional claw trimming

Literature

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