

Social behaviour of loose housed goats kept in small groups

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Key words

Goats, loose housing, social behaviour, pen design

Aim of the study

The study aimed at providing recommendations for the pen design in loose housing systems, especially for small groups and horned goats.

Material and methods

Several experiments were carried out with 72 adult goats divided into eight groups each of nine goats which were either horned or hornless and had been grouped as adults or juveniles (2x2 factorial design). These gave insight into the individual distances between goats while feeding and their correlation with parameters of cardiac activity. Furthermore, several structural modifications at the feeding place and in the pen were investigated that were effective in reducing agonistic interactions. We also analysed the impact of several factors of the goats' social behaviour and the presence of horns on successfully housing goats in groups.

Results and significance

Our results show that for most pairs of goats the individual distance is much greater (0.5 -1.0m) than the feeding space per goat usually allowed in farming practice. From the parameters of cardiac activity there is evidence that feeding in close proximity is stressful mainly for low-ranking animals.

The frequency of agonistic interactions while feeding can be significantly reduced if two feeding animals are separated by a partition or if they are standing on different levels while feeding. The frequency of agonistic interactions while feeding and lying in the pen also decreases if the pen is furnished with partitions and elevated levels.

There was no difference in the individual distances between hornless and horned goats. But in agonistic interactions, hornless goats had much more physical contact whereas horned goats were immediately responsive to threats. This difference in behaviour explains why we found that furnishing a pen with visual cover and elevated levels is more important for horned than hornless goats, to avoid social conflicts.

A smaller individual distance was found in dyads grouped as juveniles compared to dyads grouped as adults and also in goats with a positive social bond. This shows the importance of a stable group composition in loose housing of goats.

Publications, posters and presentations

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