

Regrouping of dairy goats in loose housing

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Key words

goat; horns; stress; agonistic interactions; introduction; isolation; social support

Aim of the study

The project aimed at providing basic knowledge on the consequences of regrouping for the welfare of goats and to make recommendations for the improvement of these management procedures.

Material and methods

Three experiments were carried out, two focused on the introduction of unfamiliar goats into established groups and one on the temporary separation and subsequent reintegration of individual goats. In all three studies, behavioural and physiological indicators were measured to assess the associated effects for both the introduced/separated goat and the group members they were introduced to or separated from. The first study systematically assessed the consequences of introducing both horned and hornless goats individually into small established groups. The second study tested whether the presence of familiar conspecifics could reduce negative welfare effects during social confrontations with unfamiliar small groups of goats. During the third study, it was evaluated whether the level of contact with the own group could mitigate the negative effects of both a separation and the subsequent reintegration.

Results and significance

Results showed that the welfare of goats introduced individually into small established groups was adversely affected for at least five days after introduction. These effects were more pronounced in horned than hornless goats. By contrast, levels of welfare indicators for resident goats remained largely the same, indicating that they were not impaired by the introduction of an individual goat. However, the presence of familiar conspecifics can mitigate adverse effects associated with a social confrontation with unfamiliar goats. Regarding the separation and reintegration of a goat from her group, it was demonstrated that both periods compromised the welfare of the separated goat. However, the combination of acoustic, visual and tactile contact to the original group mitigated these adverse effects to some extent.

Taken together, the results of this project illustrate that both the introduction of unfamiliar individuals into established groups and the temporary separation of individuals from its group should be avoided whenever possible in goat husbandry. If an introduction is unavoidable, it is advisable to introduce several familiar goats simultaneously. During separation, acoustic, visual and tactile contact with the remaining group members should be possible in order to mitigate adverse effects on the welfare of the separated individual.

Publications, posters and presentation

Patt, A.; Gygax, L.; Wechsler, B.; Hillmann, E.; Palme, R.; Keil, N.; M. Behavioural and physiological reactions of goats confronted with an unfamiliar group either when alone or with two peers. *Applied Animal Behaviour Science* 146: 56-65.

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Patt, A.; Gygax, L.; Wechsler, B.; Hillmann, E.; Palme, R.; Keil, N.; M. (2012) The introduction of individual goats into small established groups has serious negative effects on the introduced goat but not on resident goats. *Applied Animal Behaviour Science* 138: 47-59.

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