SUMMARY

This pilot study tried to answer the question however the present animal welfare regulations for horses regarding lying hall area requirements are adequate for horses older than 24 months. The study was carried out at one of the largest stud farms for standard bred horses in Sweden. Mares in late pregnancy with an initial mean age of 10 years was used in a behaviour study. The influence of varying space per animal in a loose-housing system on behaviours like the horses' lying hall use, standing, resting, moving behaviour and threats was studied. The behaviour at three different horse densities – 18 mares, 13 mares and 8 mares (7.4 m², 10.3 m² and 16.7 m² per mare, respectively) – was recorded by use of video. Lying hall use was investigated by using an interval study. Standing, resting and moving behaviour was studied continuously. Threats were also recorded in the continuous study together with the response and the behaviour before and after a threat where noted.

The literature study included the horse’s natural behaviour, the consequences of stress and insufficient rest for the pregnant mare and her foetus. Additionally, design of lying hall in a loose housing system has been studied.

The results clearly indicated that a larger portion of the mares was using the lying hall at the lowest horse density. At this density, the mares spent more time in the lying hall. Nevertheless, the number of mares in the lying hall was almost twice as high at the highest horse density as at the two lower levels. At the intermediate horse density – "13 mares", a higher degree of anxiety could be observed. Obviously, other factors, not studied here, as rank and group constellation influenced the lying hall use.

The majority of the mares used the lying hall for resting, standing and lying purposes. A larger portion of the mares using the lying hall used it for resting at the lowest horse density. The rest was negatively influenced by the threats which almost ceased to appear at the lowest density. At the lowest horse density – "8 mares" – the mares receiving threats were not disturbed very much. Many of them are continued resting. The lower horse density and resulting in the larger private zones seemed to lower the level of anxiety.

The results showed that the mares have a preference for staying in the darker parts of the lying hall throughout the day and night, as the light was on all the time due to the video recordings.

Keywords
Mare, lying hall, threat, aggression, time budget, behaviour