Housing of culled sows in the hours before transport to the abattoir – description of sow behaviour while waiting in a pick-up vehicle

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In modern pig production, sows are transported by road to abattoirs. However, for reasons of biosecurity, commercial trucks may have limited access to farms. This is particularly important with regard to sow transport as commercial trucks often visit several farms during one trip to the abattoir due to the low group size of culled sows from each farm.
According to Danish regulations, sows can be kept in stationary pick-up vehicles in the area surrounding the main farm buildings for up to 2 hours before being loaded onto the commercial truck. The stay in the pick-up vehicles are not, according to legislation, defined as part of the transport. Hence, farm regulations apply and vehicles must live up to the same requirements as ordinary sow housing concerning space allowance, shelter and resources.
Although the use of pickup vehicles is widely used in Denmark, knowledge about possible welfare consequences of the stay in the vehicles is lacking. In this exploratory study we aimed to describe the behaviour of culled sows while kept in pick-up vehicles before they were transported to slaughter. The study included data from 11 transports visiting a total of six Danish sow herds. The selection of animals to be slaughtered was done by the farmers. Clinical registrations were made before collection of the sows, after which they (in groups of 7-13) were mixed and moved to a pick-up vehicle (mean stocking density: 1.0±0.5 sows/m^2), and driven a short distance to the nearest public road. The duration of the stays in the pick-up vehicles before being loaded unto the commercial trucks ranged from 6-59 minutes. During this period, the median frequency of aggressive interactions was 18 (range: 4-65), whereas the median frequency of lying down per stay was 1 (range: 0-23). The duration of the stay correlated positively with the frequency of aggressive interactions (r_s=0.89; N=11; P<0.001) and with the frequency of lying (r_s=0.62; N=11; P<0.05). In addition, frequency of aggressive interactions correlated positively with the temperature inside the pick-up truck (r_s=0.89; N=7; P<0.001). These results are the first to describe the behaviour of culled sows during waiting in a pick-up vehicle, and suggest that this period can be challenging for sow welfare, especially for longer stays and during hot days.

Keywords: Culled sows - Transport - Animal Welfare - Behaviour - Slaughter