**Changes in dairy cows’ behaviour after transition from tied to loose housing**

**Andres Aland1\*, Tanel Kaart2, Lena Lidfors3, David Richard Arney4, Anne Pavlenko5**

\*[andres.aland@emu.ee](mailto:andres.aland@emu.ee)

1Chair of Veterinary Biomedicine and Food Hygiene, Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, Kreutzwaldi 62, 51006 Tartu, Estonia

2Chair of Animal Breeding and Biotechnology, Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, Kreutzwaldi 62, 51006 Tartu, Estonia

3Department of Animal Environment and Health, Swedish University of Agricultural Sciences, P.O. Box 234, 53223 Skara, Sweden

4Chair of Animal Nutrition, Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, Kreutzwaldi 62, 51006 Tartu, Estonia

5Baltic Vianco Trading OÜ, Sänna village, Rõuge municipality, 66710 Võru county, Estonia

**Abstract:**

Transition of dairy cows from a tied to a loose housing system may affect their behaviour, which could also lead to possible adverse effects on health and production. Such housing system changes have become more frequent in Estonia but there is too little knowledge about how cows adapt behaviourally to the new system.

The aim of this study was to evaluate how cows’ behaviour changed after transition from tied to loose housing.

A herd of 400 dairy cows was moved to a new system on the same farm, so that effects of transport were not confounding factors. Behavioural observations were made for approximately four months following transition.

Significant effects on behaviour were observed just after the transition, with increases in the behaviour indicative of poor welfare, such as vocalisation and aggression, and decreases in those indicative of a good state of welfare, such as ruminating, resting and grooming. For most of the herd, with the exception of older cows, these effects were of short duration, with most returning to a steady state after the first week.

The transition from tied to loose housing first had negative impacts on the welfare of the cows, although by the tenth day the behavioural indicators had returned to normal values. Impacts were more severe in higher parity cows, indicating that the change was more of a challenge for older cows. The findings of this study suggest that animals’ behaviour should be more carefully observed within about two weeks after transition. It is quite likely that more and more farmers in Estonia and elsewhere will recognize the benefits of keeping their dairy cattle in loose housing, aimed at improving animal welfare and the value of the production chain.

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