



Effects of housing in dairy cattle

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Introduction

• Mainly two types of housing systems in Sweden: tie-stall and loose-house

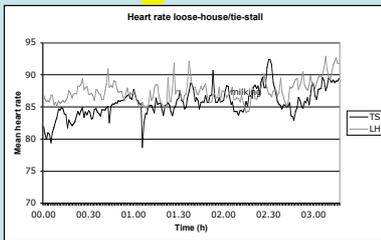
Tie-stall

- Tied by the neck next to the fodder table
- Short-stall: the cows have to keep their head over the fodder table in order to have room for lying and standing
- Milked when standing on their stalls



Loose-house

- Free to move around
- Cubicle system: passageway with slatted floor and stalls to lie on
- Milked in a milking parlour

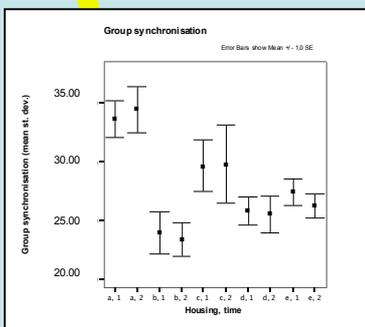


Heart rate

- Stress response
- There was a tendency for higher heart rate in the loose-house

Group synchronisation

- There was a tendency for lower group synchronisation in the loose-house
- A high lying synchrony is an indicator of good welfare



Stepping

- Possible stereotypic behaviour
- Significantly higher frequency in the tie-stall

Acknowledgements

I wish to thank my supervisor Per Jensen.

Conclusions

- Behavioural welfare problems in both the tie-stall and in the loose-house. The problems in the tie-stall could be considered as more severe
- Despite the freedom of movement did the loose-house not invite to the same behaviour pattern as on pasture.

Objective

To see if there were any behavioural welfare problems among cows kept in a tie-stall compared to cows kept in a loose-house

- 1, a- pasture, after milking
- 1, b- pasture, before milking
- 2, a- loose-house after intake, after milking
- 2, b- loose-house after intake, before milking
- 3, a- tie-stall after intake, after milking
- 3, b- tie-stall after intake, before milking
- 4, a- loose-house autumn, after milking
- 4, b- loose-house autumn, before milking
- 5, a- tie-stall autumn, after milking
- 5, b- tie-stall autumn, before milking

Rising up and lying-down difficulties

- Rising up and lying-down difficulties - welfare indicators
- There was a tendency for more rising up difficulties in the loose-house and there were significantly more lying-down difficulties seen in the tie-stall

Method

- Individual behaviours and group synchronisation
- Heart rate - before, during and after milking
- Five situations observed: pasture, tie-stall intake, loose-house intake, tie-stall and loose-house autumn

Results

Activity/passivity

- A tendency for less activity (shorter eating duration) in the loose-house than in the tie-stall
- Short eating duration could cause oral stereotypies

