Cubicles height over the floors in passages – implications for hygiene

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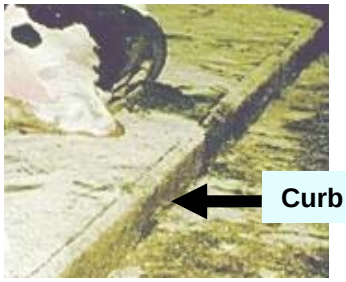
Introduction

Improving hygiene in the cubicle surface is important in order to:

- Reduce environmental mastitis
- Improve milk quality
- Improve welfare

Different floor types and management (scraping) of floors will contribute to the hygiene in the cubicle.



Objectives

To investigate how the hygiene in the cubicle surface is influenced by:

- Two different curb heights for cubicles.
- Two different flooring – slatted floor and solid floor (mastic asphalt)

Curb heights:
Low: 9 cm - slatted floor and solid floor
High: 17 cm - solid floor

Results

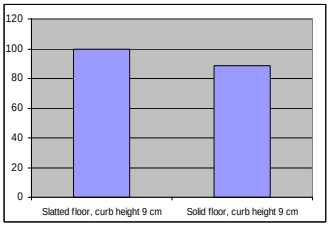
Results show that the hygiene was best in solid floors with mastic asphalt and scrapes with the high cubicle curb height:

- Lower amount of manure
- Lower number of coliform bacteria
- Somatic cell counts tended to be lower

Low curb height in the solid floor section had the poorest hygiene in most aspects.

Relative effect of curb height on manure content in cubicles

Relative effect of floor type on manure content in cubicles



Slatted floor, 9 cm curb height = 100

Material and Methods

- Cow group size: 20 X 3
- Slatted floor: 125 mm slats, 40 mm slots, curb height 9 cm
- Solid floor: mastic asphalt surface, scraped 11 times daily, curb heights 9 and 17 cm
- Bedding collected from an area of 3600 cm^2 in the back of the cubicles and analyzed for:
  - Manure content (calculated from ash content)
  - Coliform bacteria
- Milk quality:
  - Bi-weekly individual SCC

Conclusions

- Low curb heights should be avoided
- High frequency of scraping contributed to the better hygiene in the high curb height cubicles in the solid floor section
- An optimal curb height should be determined considering both hygiene and animal welfare/behaviour
- Assessing hygiene is suggested to be done using several methods