BEHAVIOUR OF TWO COW GENOTYPES WITHIN A LOW INPUT GRAZING SYSTEM AND A HIGH INPUT TOTAL CONFINEMENT SYSTEM

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1) Introduction

Dairy systems in Atlantic Europe are ranging from **low input grazing systems** to **high input confinement systems**. The **impact** of these different systems **on cow behaviour and animal welfare has not been extensively examined**. Lying is believed to be important for cow comfort, *and seems that they should be doing it when are not feeding*.

2) Objective

To study the **behaviour of two cow genotypes** when managed within **two contrasting milk production systems**.

3) Material and Methods

Spring calving dairy cows: Holstein-Friesian (n=40) and Jersey x Holstein-Friesian crossbreds (n=40), managed into:

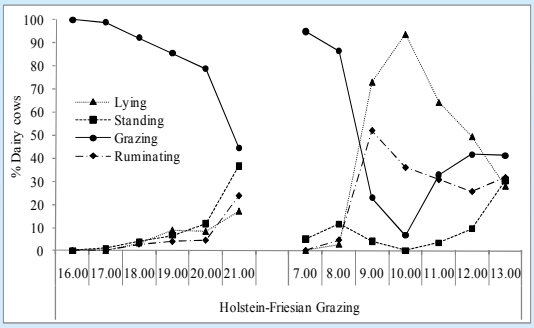
On three occasions during a **six week period**, each herd was observed **at 20-minutes intervals** between 16.00 – 22.00 h and 07.00 – 14.00 h.

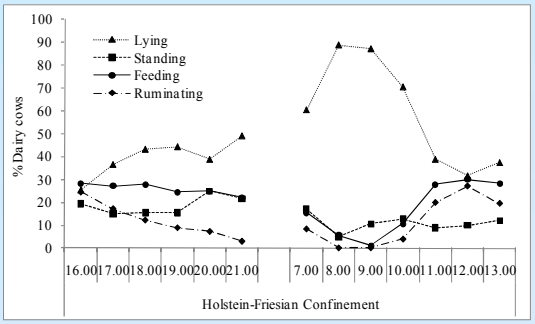
The **behavior of each cow** was **recorded** as follows: feeding or grazing, lying, standing and ruminating.

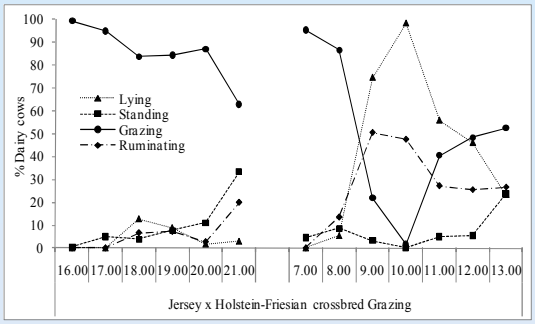
Data were analysed as a 2 x 2 factorial design, with repeated measures (period), using REML Genstat.

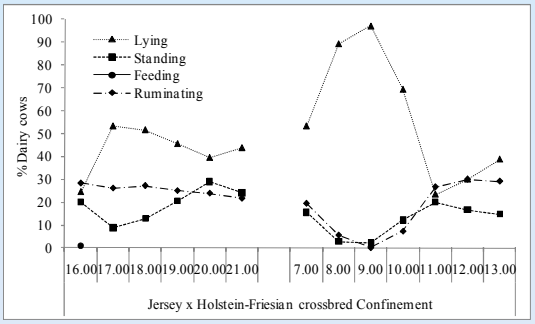
4) Results and Discussion

Percentage of cows within each group involved in a range of activities









a) Time spent **lying, feeding** and **ruminating differed between periods**, while time spent **standing did not differ**.

b) **Breed** had **no significant effect on any of the behaviours** observed.

c) **Cows** on the **grazing system** spent **more time grazing**, than those on the **confinement system** spent **eating** (523 vs. 174 min).

d) Time spent **lying** (411 vs. 213 min), **standing** (237 vs. 86 min) and **ruminating** (244 vs. 141 min) were **higher** in the **confinement** than in the **grazing system**.

5) Conclusions

- **Cows within the grazing system and confinement system behaved differently**.
- Most of these differences likely result from the fact that **grazing cows** need more time to meet their **dry matter intake requirements** compared to cows **on indoor diets**.

6) Acknowledgements

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