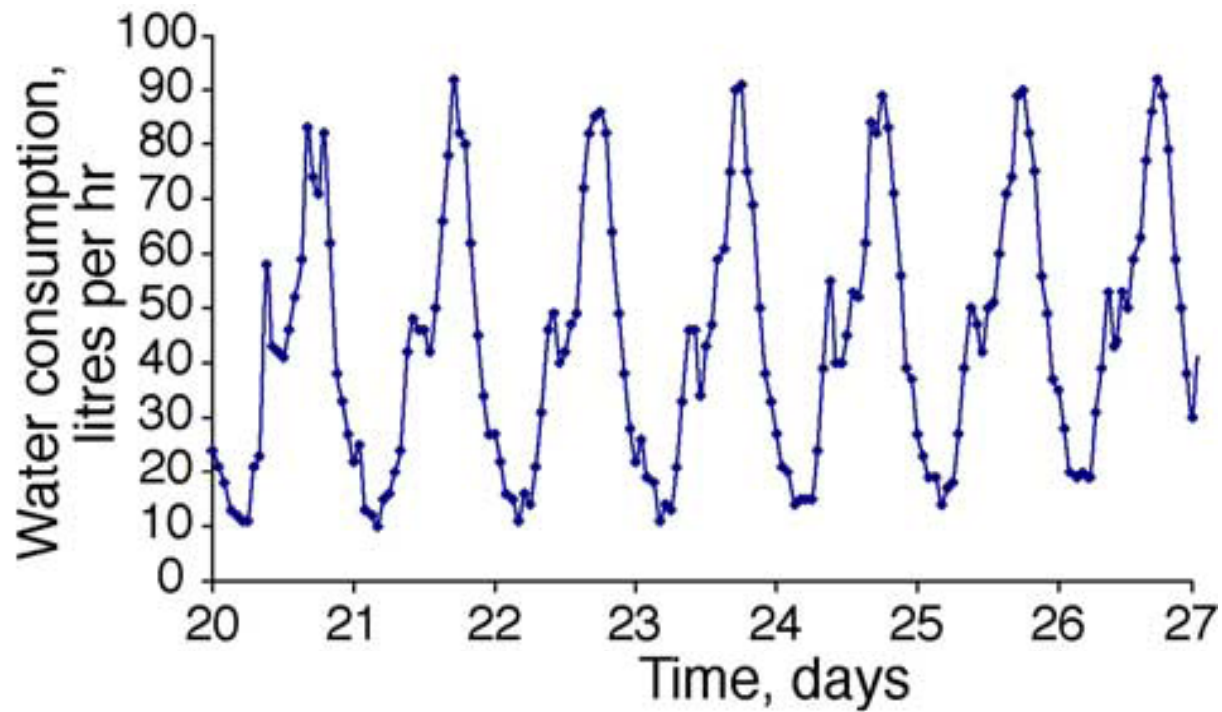


The effect of group size on drinking behaviour in growing pigs

Heidi Mai-Lis Andersen and Mette Herskin

Background



Madsen & Kristensen, 2005

Aim

The aim was

- to describe a typical visit at the water nipple

And

- to investigate the effect of increased competition

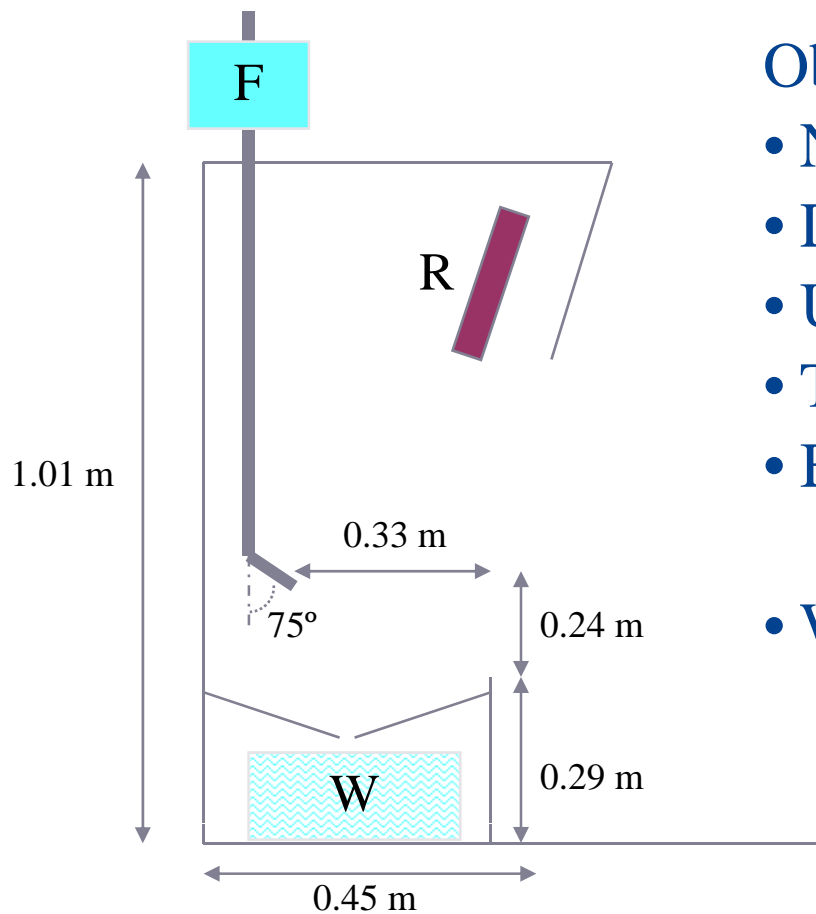
Methods

- › N = 52 castrated male pigs
- › Weight 20.53 ± 1.69 kg
- › Free access to feed and water
- › Four pens located in the same room

Treatment:

- › Two group size (3 or 10 pigs per pen)
- › RFID tag
- › Observations period 4 day

Observations



Observations per ID:

- Number of Visits
- Duration
- Used
- Time
- Breaks between visits < 30 sec
- Water wastage (between 8 am - 4 pm)

Analysis

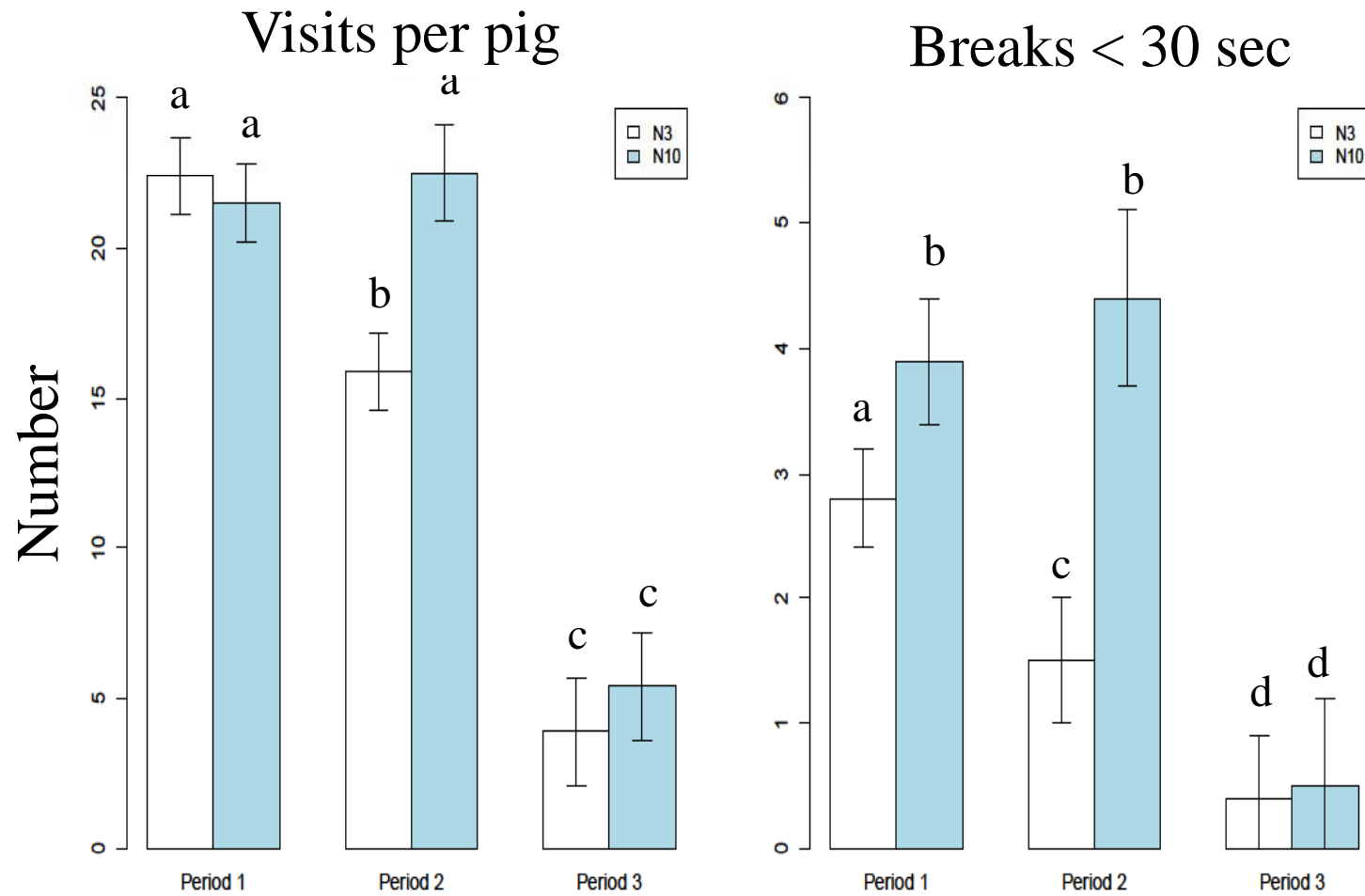
- › General linear mixed model
- › Two levels of aggregation
 - › Day level
 - › 8 hour level
 - › Period 1: from 6 am to 2 pm
 - › Period 2: from 2 pm to 10 pm
 - › Period 3: from 10 pm to 6 am

- › $P = 0.05$

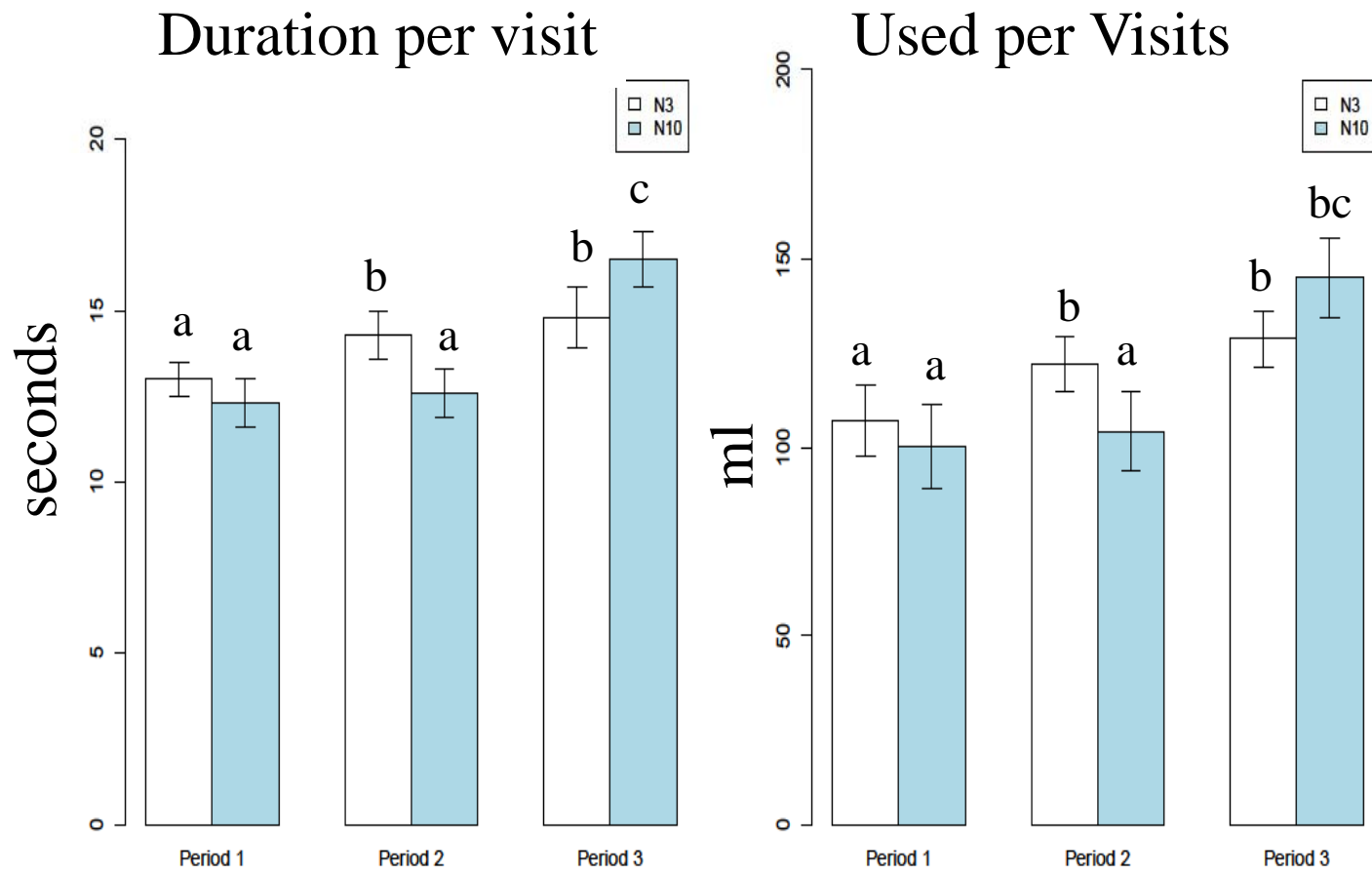
Results on day level

	3 pigs per group	10 pigs per group
<i>Per pig per day</i>		
Visits	42.3 ± 3.6 ^a	49.3 ± 3.6 ^a
Duration (sec)	566.3 ± 24.5 ^a	626 ± 34.6 ^a
Used (ml)	4767 ± 268 ^a	5212 ± 379 ^a
Breaks < 30 sec	4.7 ± 0.7 ^a	8.8 ± 1.0 ^b
Waste (% of used)	33.5 ± 1.9 ^a	35.4 ± 2.7 ^a

Results on period level



Results on period level



Summary

Significant differences in

On day level : breaks < 30 sec (highest in N10)

Period 1: breaks < 30 sec (highest in N10)

Period 2: Visits and breaks < 30 sec. (highest in N10)
Duration and intake per visit (lowest in N10)

Period 3: Duration per visit (highest in N10)

Discussion

- › Variation between periods
- › Variation in the correlation between the parameters
- › Period vs. day level
- › Breaks between visits < 30 sec. indicator of competition?

Conclusion

On day level:

- › Significant difference in breaks < 30 sec.

On period level:

- › Significant difference in visits, breaks < 30 sec, duration and use
 - but the difference was seen only in some periods

Thank you for your attention