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New Bolton Center
The Swine Group

SCHAUER
PERFECT FARMING SYSTEMS



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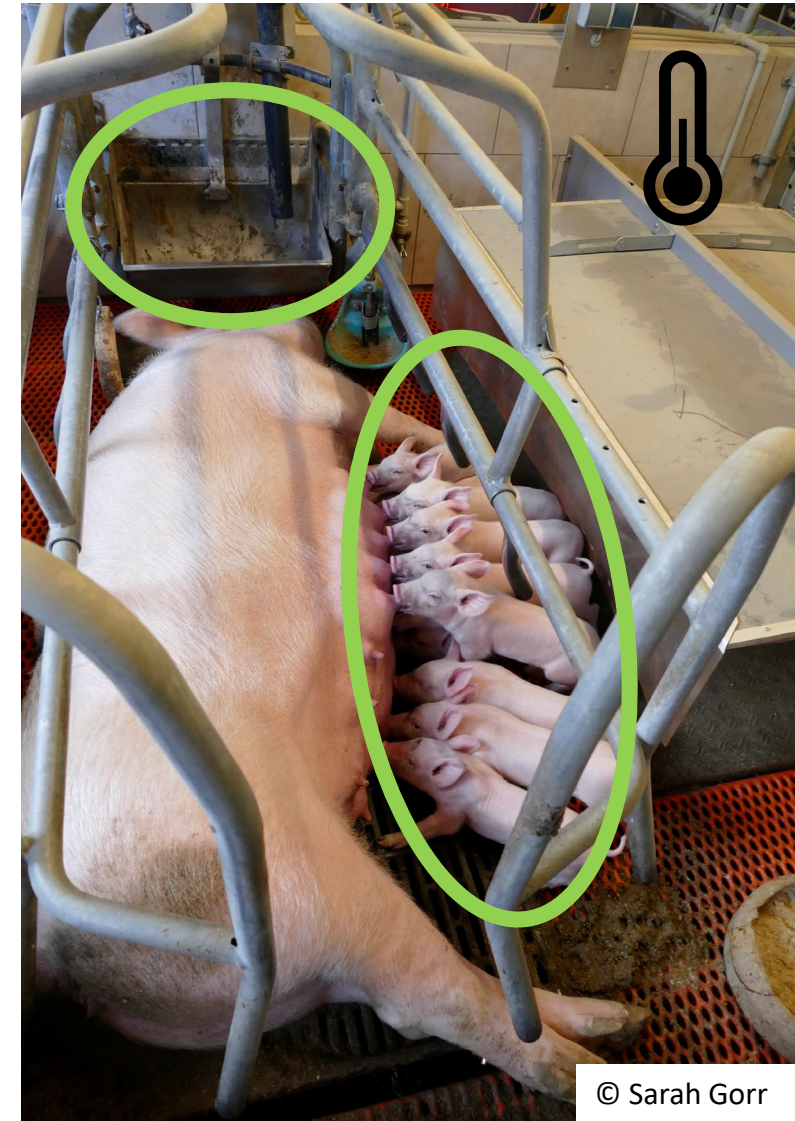
When do ad libitum fed lactating sows choose to eat?

Sarah Gorr

Christine Leeb, Christoph Winckler, Werner Zollitsch, Tom D. Parsons

EAAP Conference 2024, Florence

Feeding behavior of lactating sows



Sensor & Sow controlled

When do ad-libitum fed
lactating sows choose to eat?

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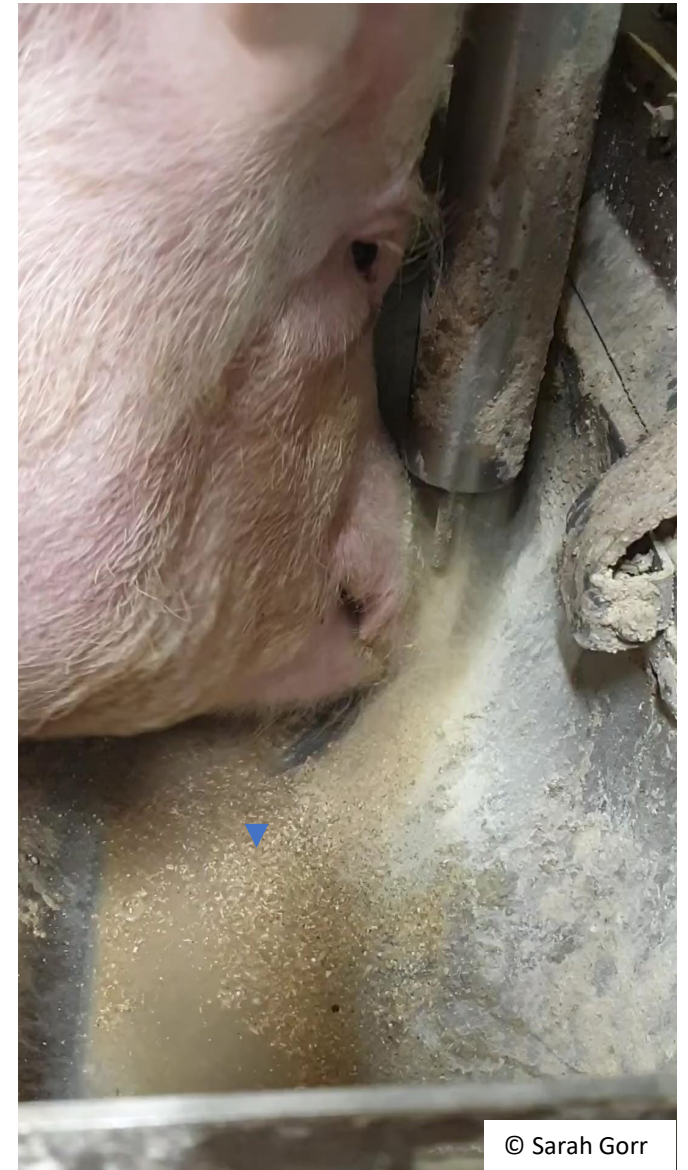
Research Question

- How much feed is dispensed over lactation and during the day (feeding curve)?
- How is the dispensed feed influenced by:
 - external factors (**season**, temperature)
 - internal factors (**parity**, number of piglets, health)

Data collection

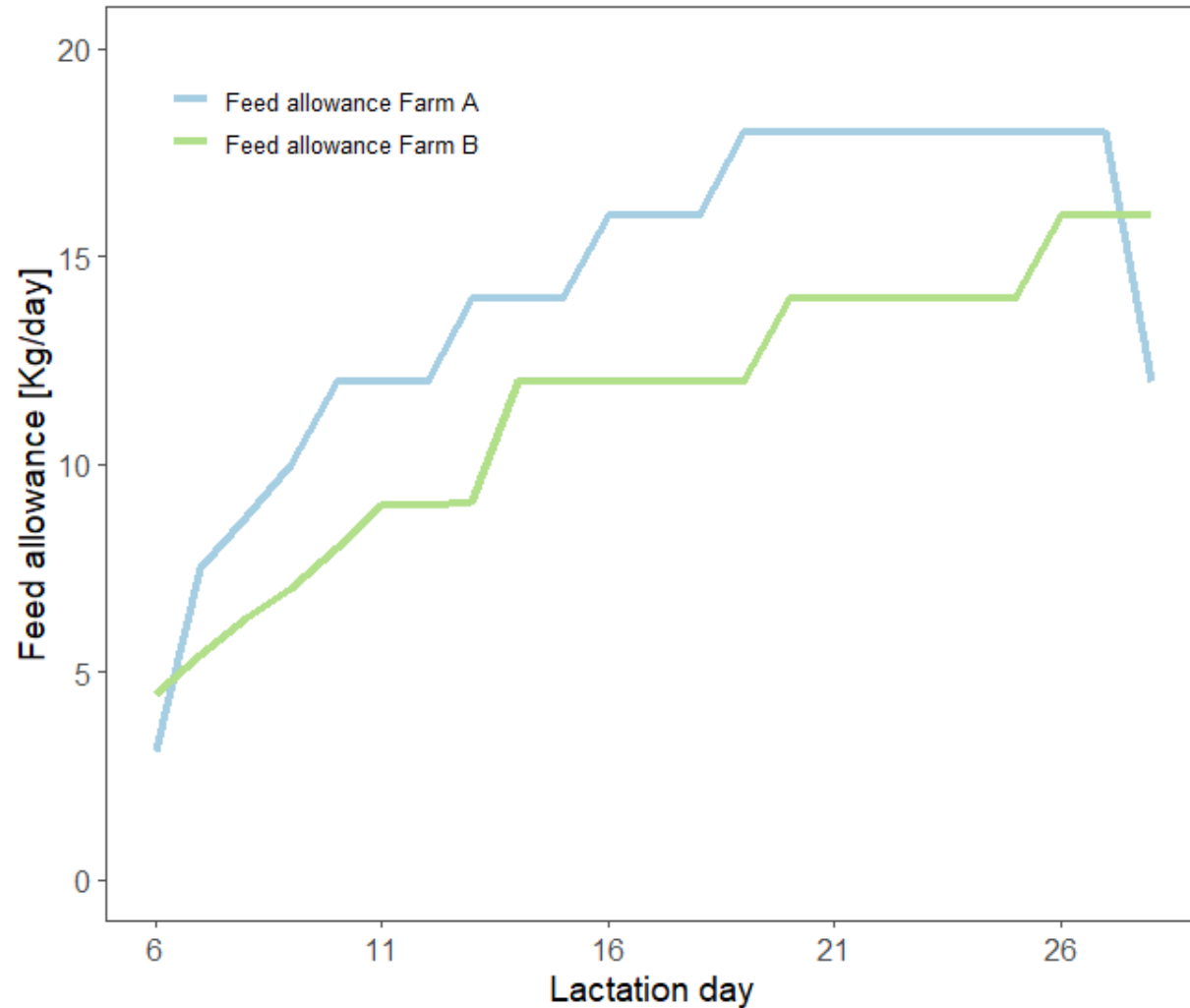
On-Farm Study:

- 2 Austrian farms with detailed observations regarding biophysical inputs and outputs and sow welfare (June - December 2022)
- Ad-libitum feeding (n=51):
 - 50 g portion
 - Increase to ad-libitum from day 6 to 9



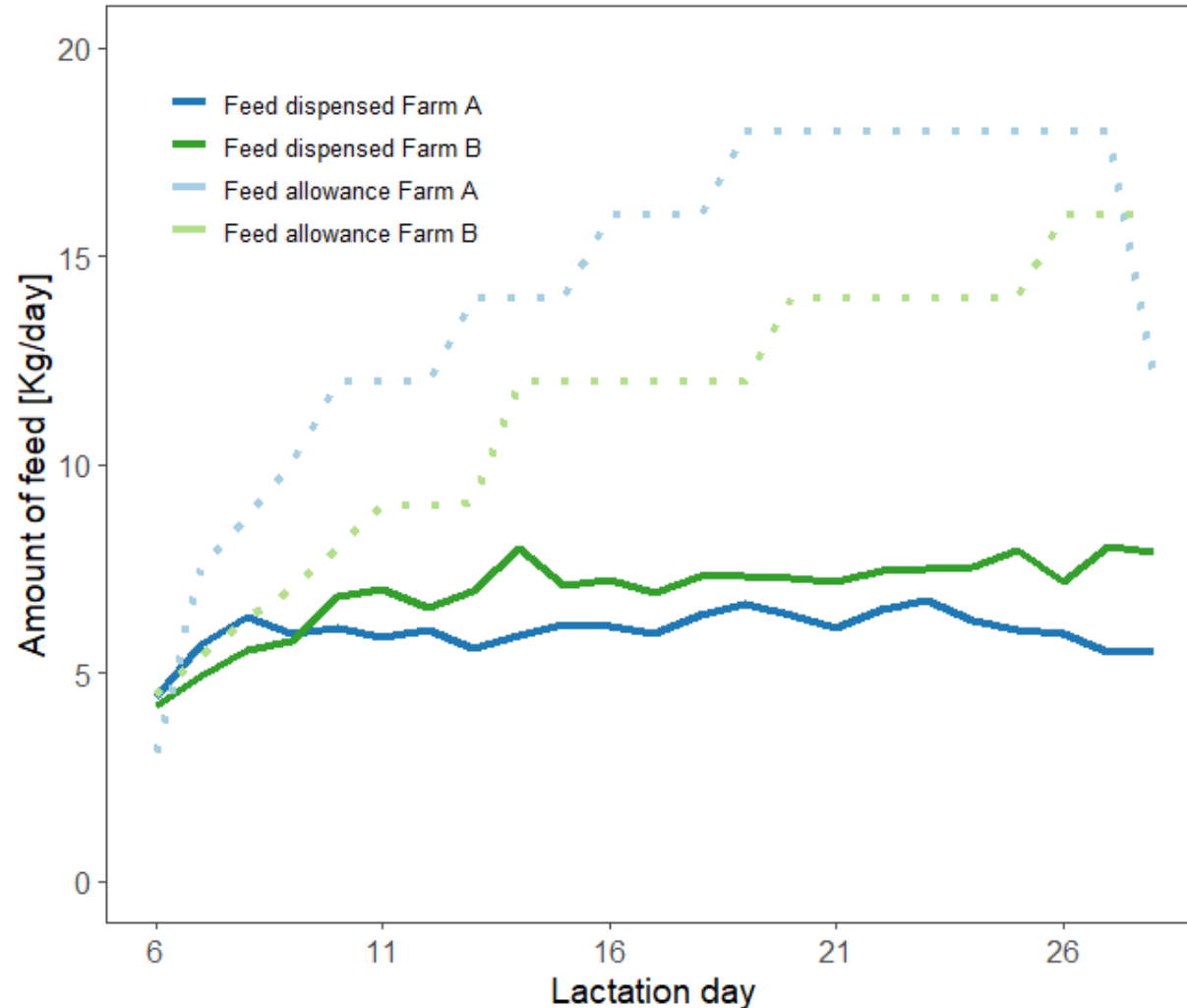
Feed allowance over lactation

(Farm A=29 sows, Farm B=22 sows)



Feed dispensed/allowance over lactation

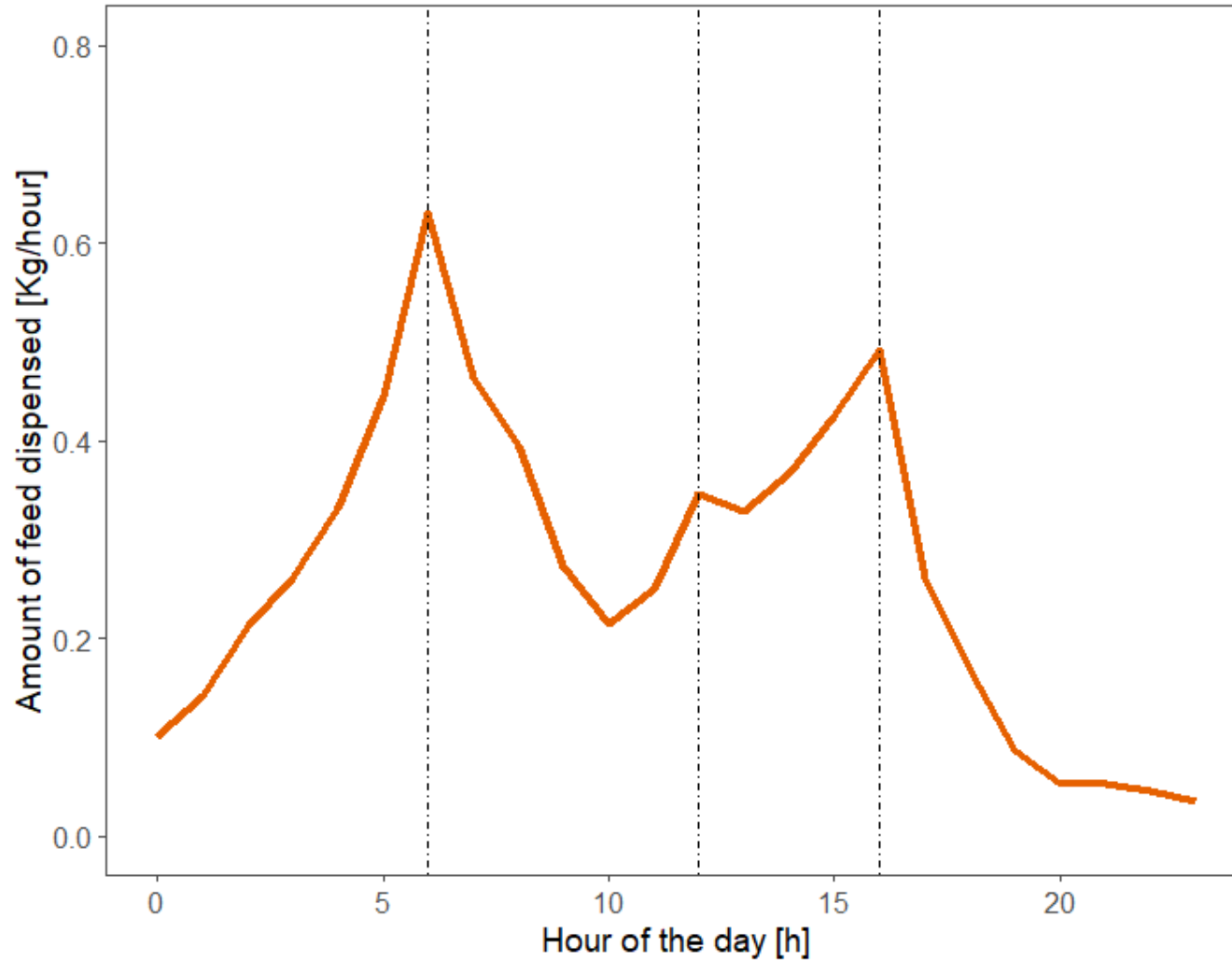
(Farm A=29 sows, Farm B=22 sows)



Feed dispensed:
6.39 kg/day

They never reached
the daily maximum
after day 7.

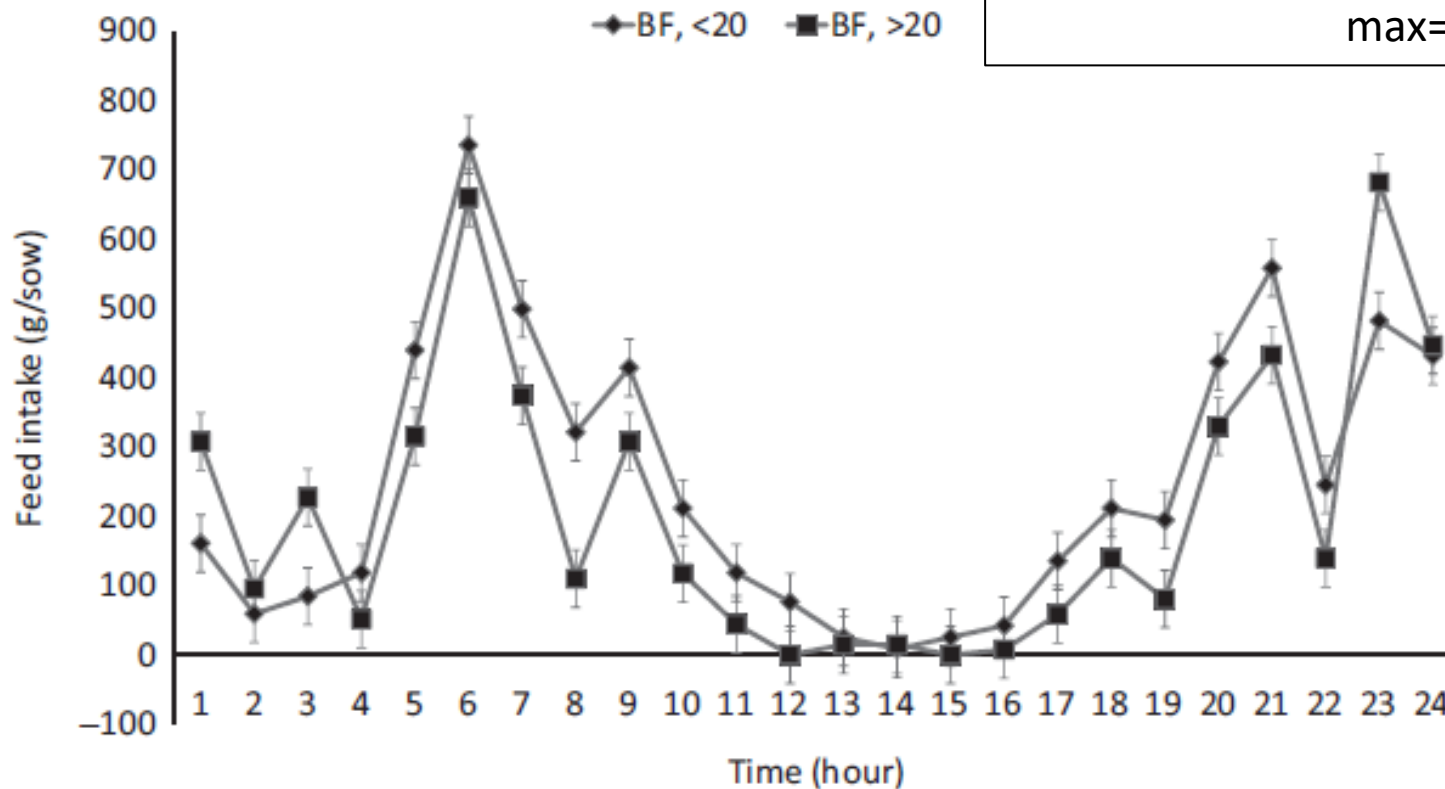
Feed dispensed over the day (n=51 sows)



Feed dispensed over the day

Choi et al., 2018

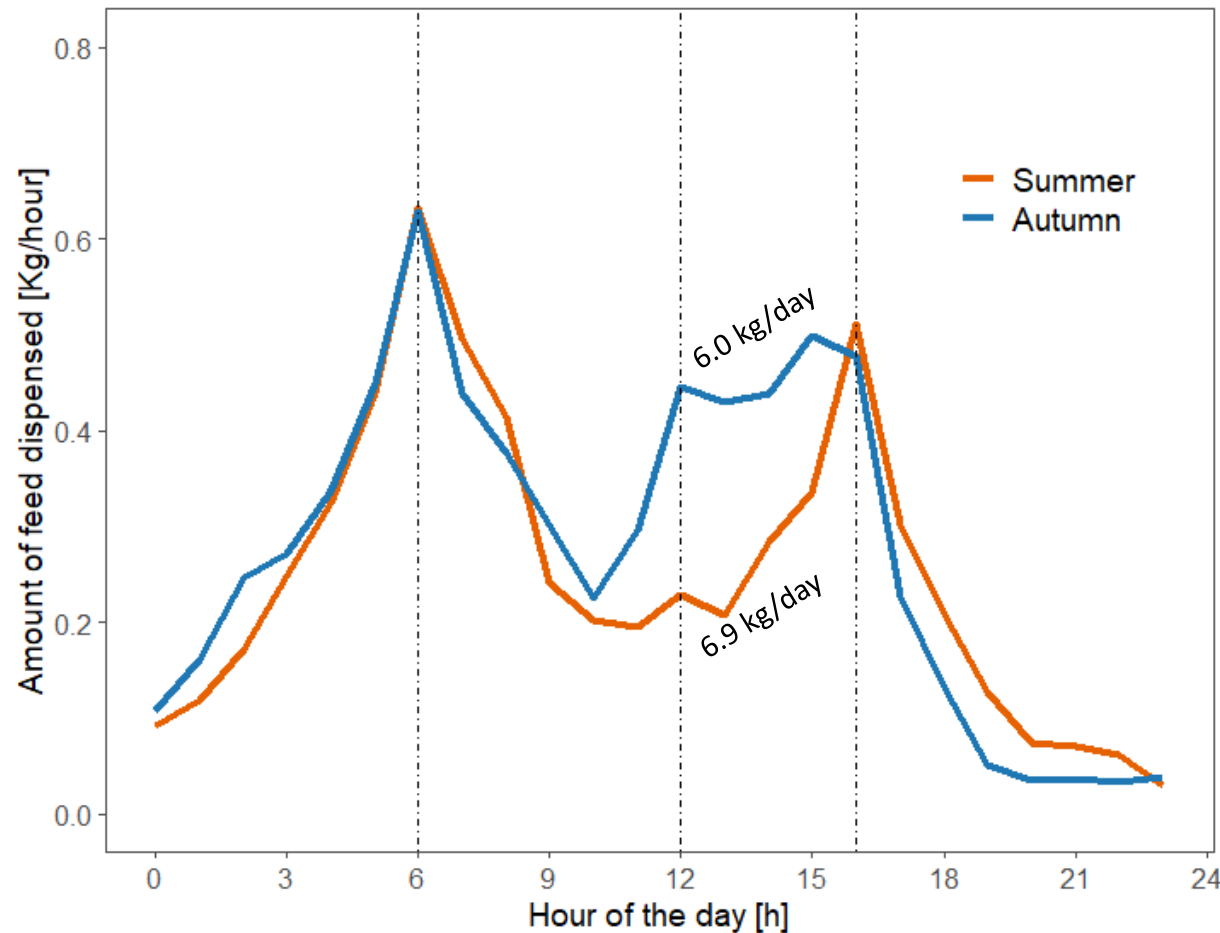
- Feed intake: 5.46 kg/day
- Temperature: min= 24.5°C, max= 30.5°C



Peak in the morning similar,
peak in the evening later
→ Other feeding strategies
influenced feeding pattern

External factor: Season

Summer: n=25 / Autumn: n=26



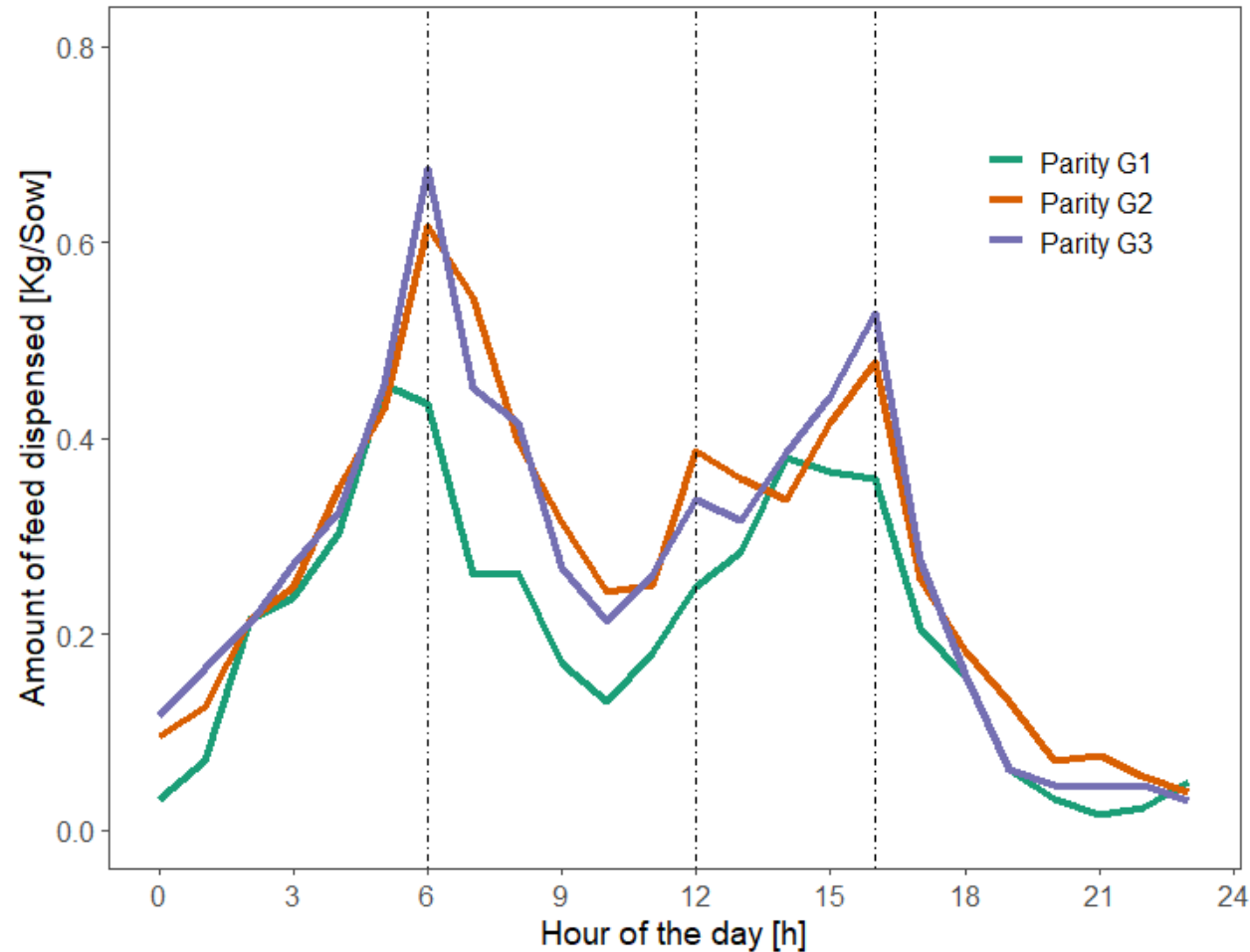
Summer = 26.6°C
Min=19.7°C, Max=31.5°C

Autumn = 22.8°C
Min=14.9°C, Max=28.9°C

- Sows ate less during summer
- Shifted their feeding times to the evening

Internal factor: Parity

Group 1 (n=5), Group 2 (n=18), Group 3 (n=28)



Feed dispensed:

G1: 4.94 kg/day

G2: 6.62 kg/day

G3: 6.51 kg/day

Gilts (G1) ate less & didn't have such prominent peaks at 6:00 and 16:00 but earlier.

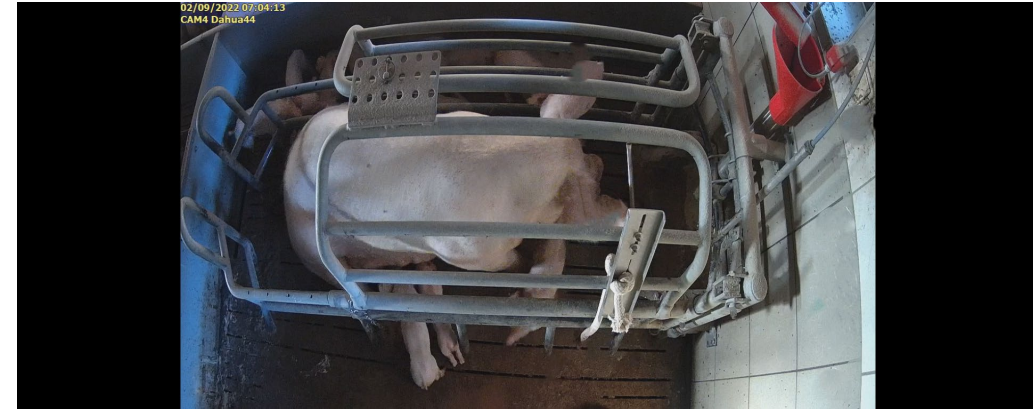
Conclusion

ADLIB sows:

- Use the possibility to eat the whole day
→ **Allow several meals per day**
- Shift feeding times to evening during summer
→ **Adapt feeding times**

How is ad-libitum feeding perceived by the sow?

→ **More validation necessary with behavioral data and HRV**



**Thanks for
listening!**

Questions?
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