



Ammonia emissions from outdoor fattening pigs on concrete pad – a farm case study

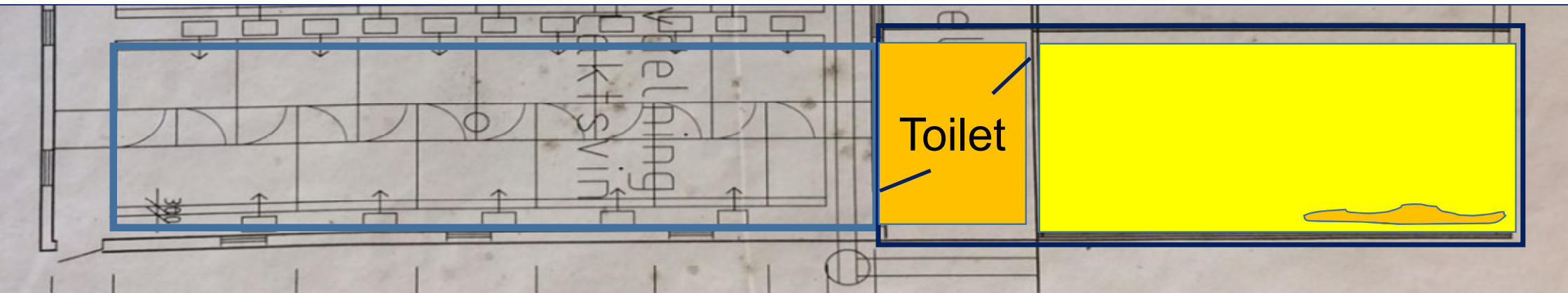
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Objective: Evaluate the effect of frequency of scraping the pigs' toilet area, on ammonia (NH_3) emissions

- 68 fattening pigs per group, 24 weeks old
- Experimental set up
 - not scraped vs. daily scraped concrete sub-areas (N= 2 pig groups per treatment)
 - Measurements of NH_3 emissions were conducted after scraping and definition of toilet, wet and dry sub-areas within the outdoor concrete run

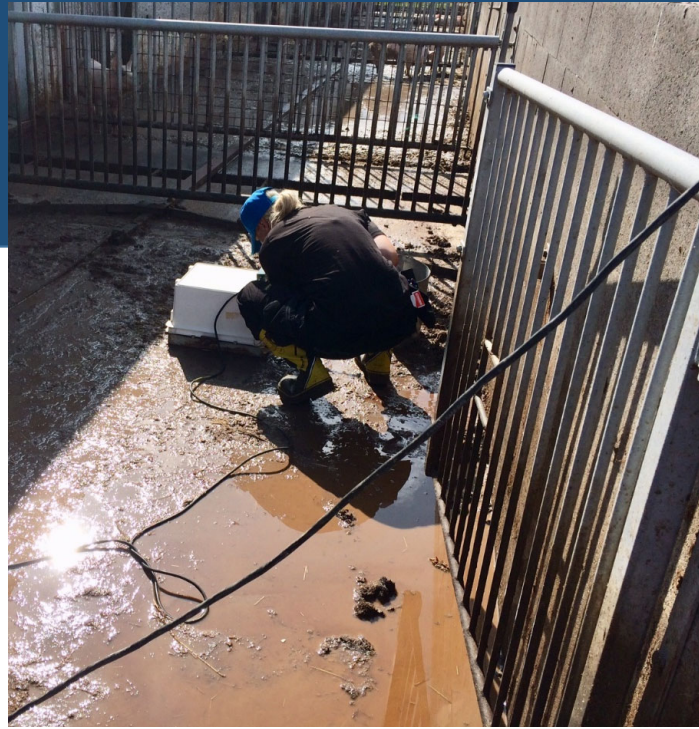
Indoor pen

Outdoor concrete run, 116 m²





The four pig groups at start



wet, toilet, dry sub-areas

9/30/2020

Proven Welfare and Resilience in organic pig production



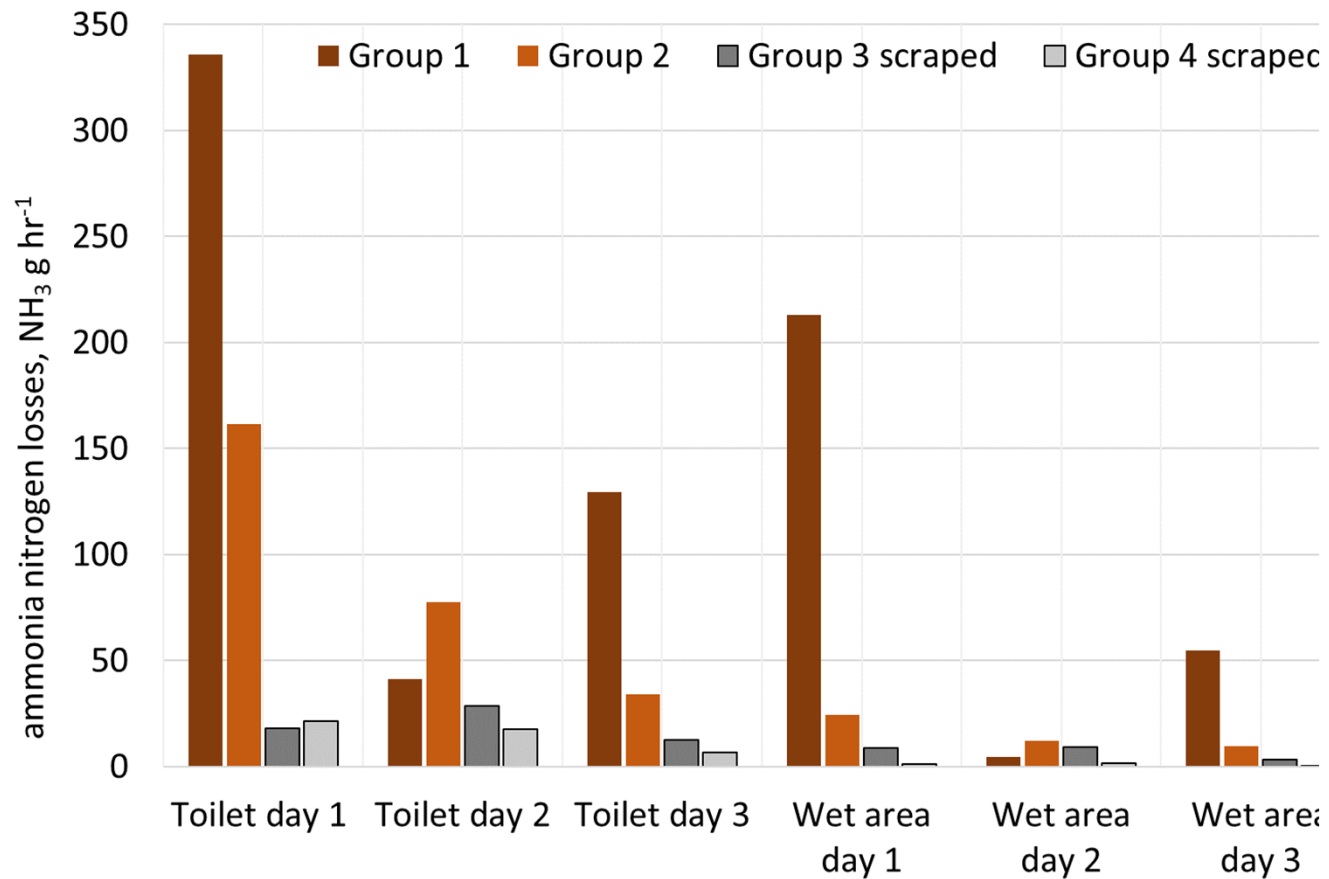


toilet before/after scraping

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Proven Welfare and Resilience in organic pig production





Average ammonia (NH₃) emission losses for each measuring period per day for toilet and wet sub-areas

without scraping (Groups 1, 2)

with scraping (Groups 3, 4)

Conclusions

- **Ammonia emissions** were each day **highest from the toilet sub-area**
- **Scraping the toilet sub-area daily kept NH₃ emissions on a similarly low level** over the three experimental days
- **Scraping wet sub-areas** on the concrete run tended to decrease NH₃ emissions but the measure **had a less clear effect**.
- **The dry sub-area** on the concrete run **had low to hardly detectable NH₃ emissions** for all three experimental days
- Daily removal of urine and faeces prerequisite a design promoting pigs to choose a toilet sub-area, and development of usable equipment and work routines.