



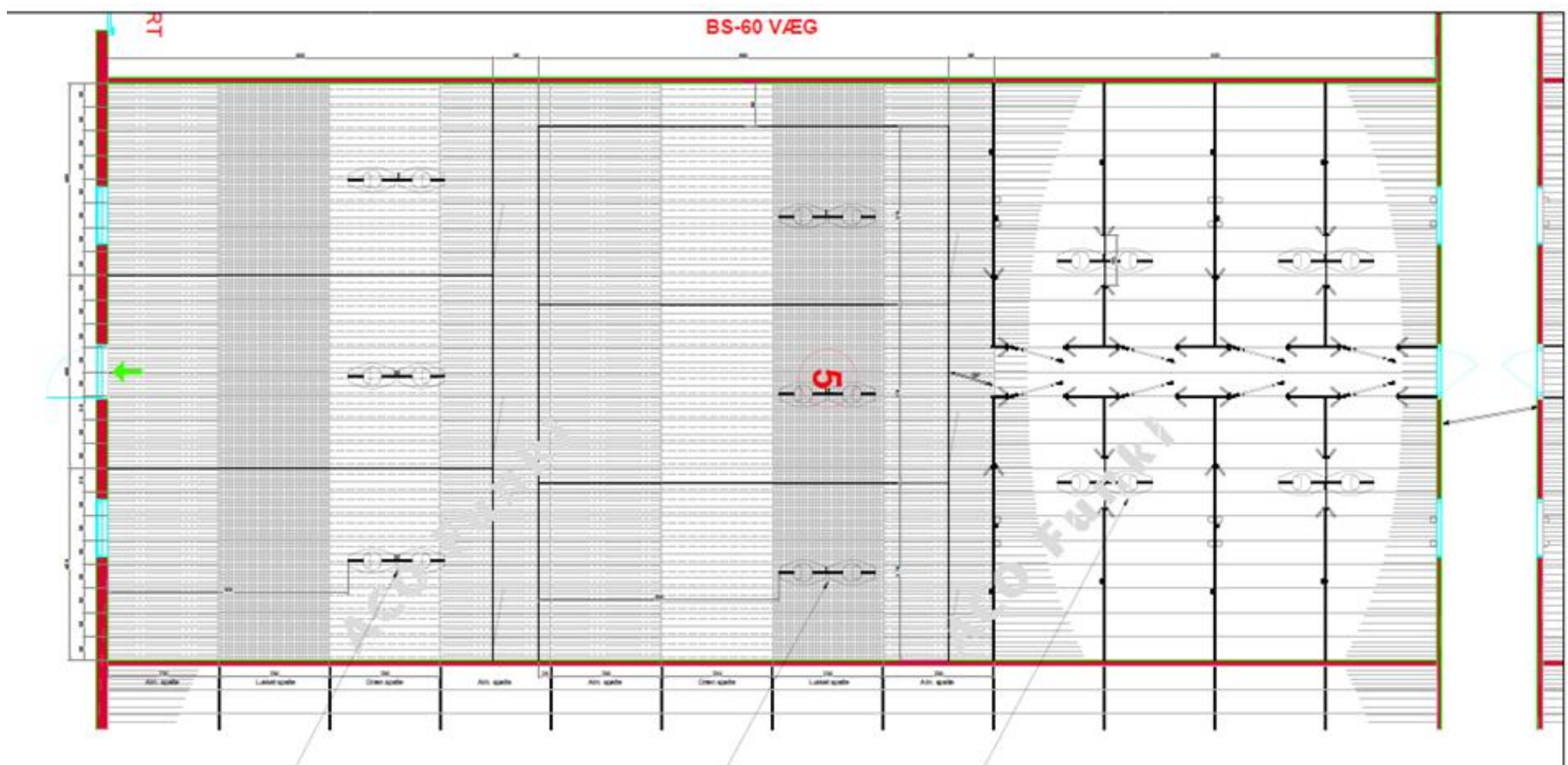
Orientering fra **SEGES** Innovation

Torben Jensen

STØTTET AF
Svineafgiftsfonden

SEGES
INNOVATION

Store stier til slagtegrise, afprøvningsbesætning



Store stier til slagtegrise, gulvudformning og foderautomater



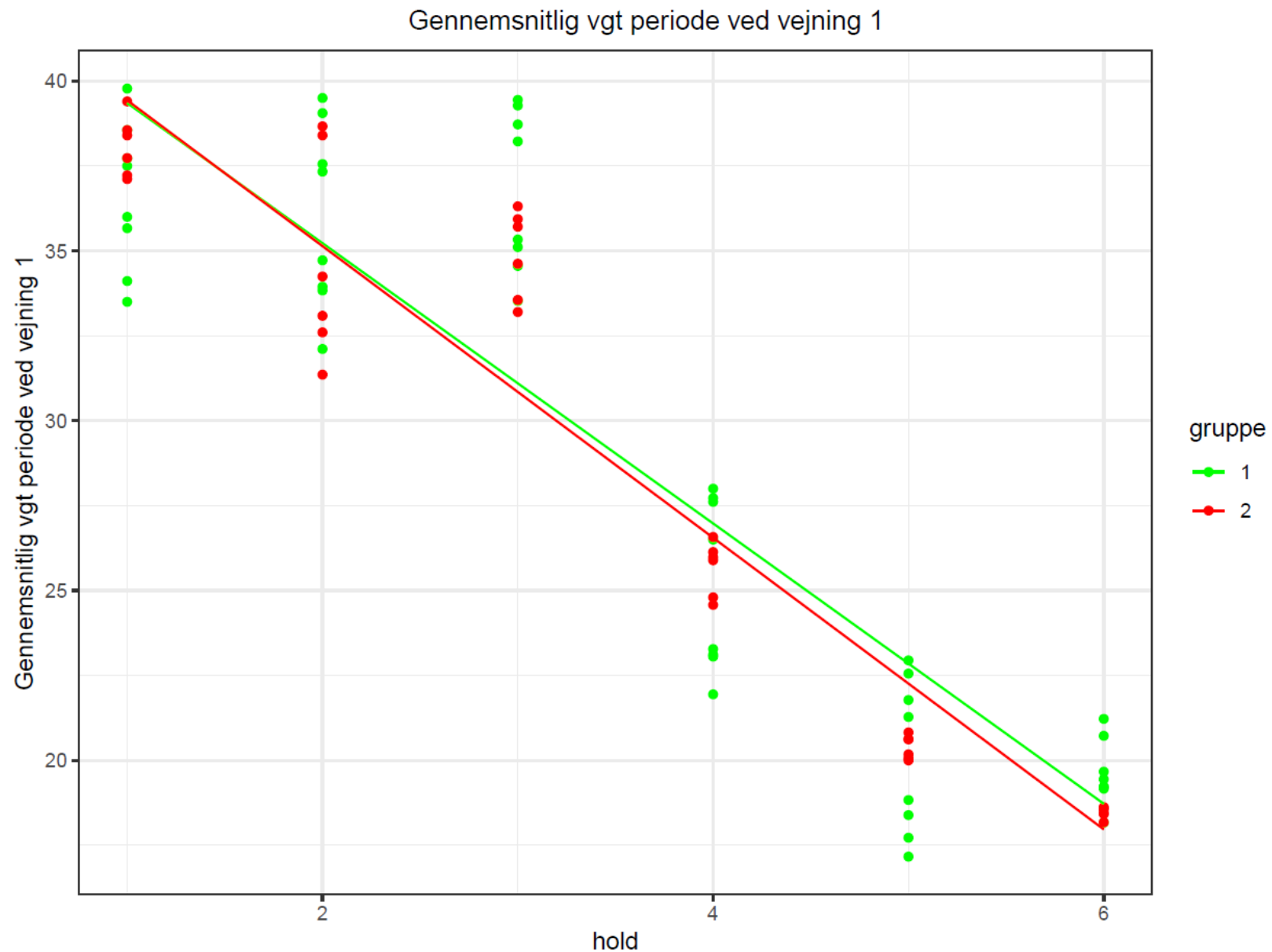
Stor sti til 45 grise



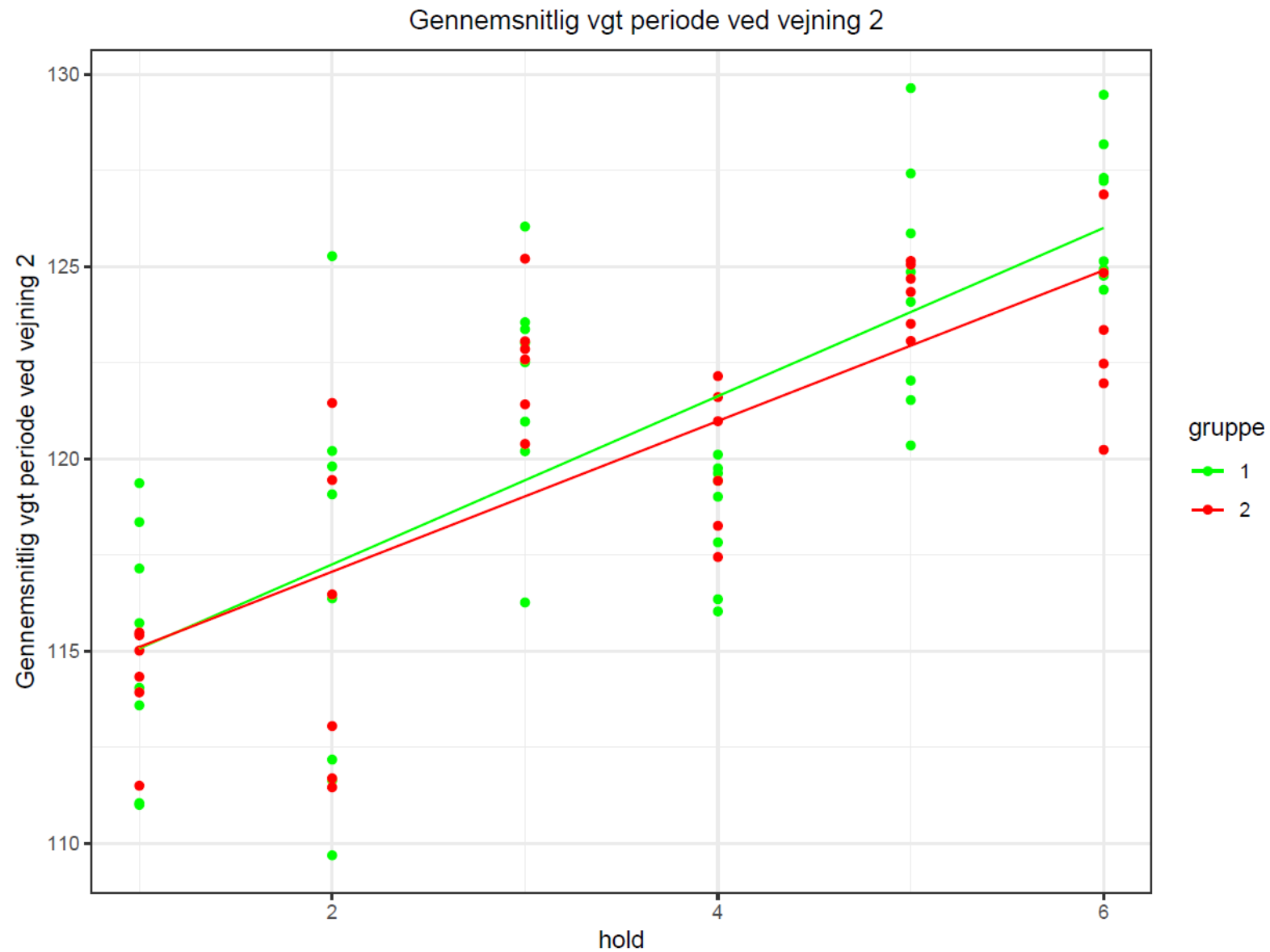
Kontrolsti til 18 grise



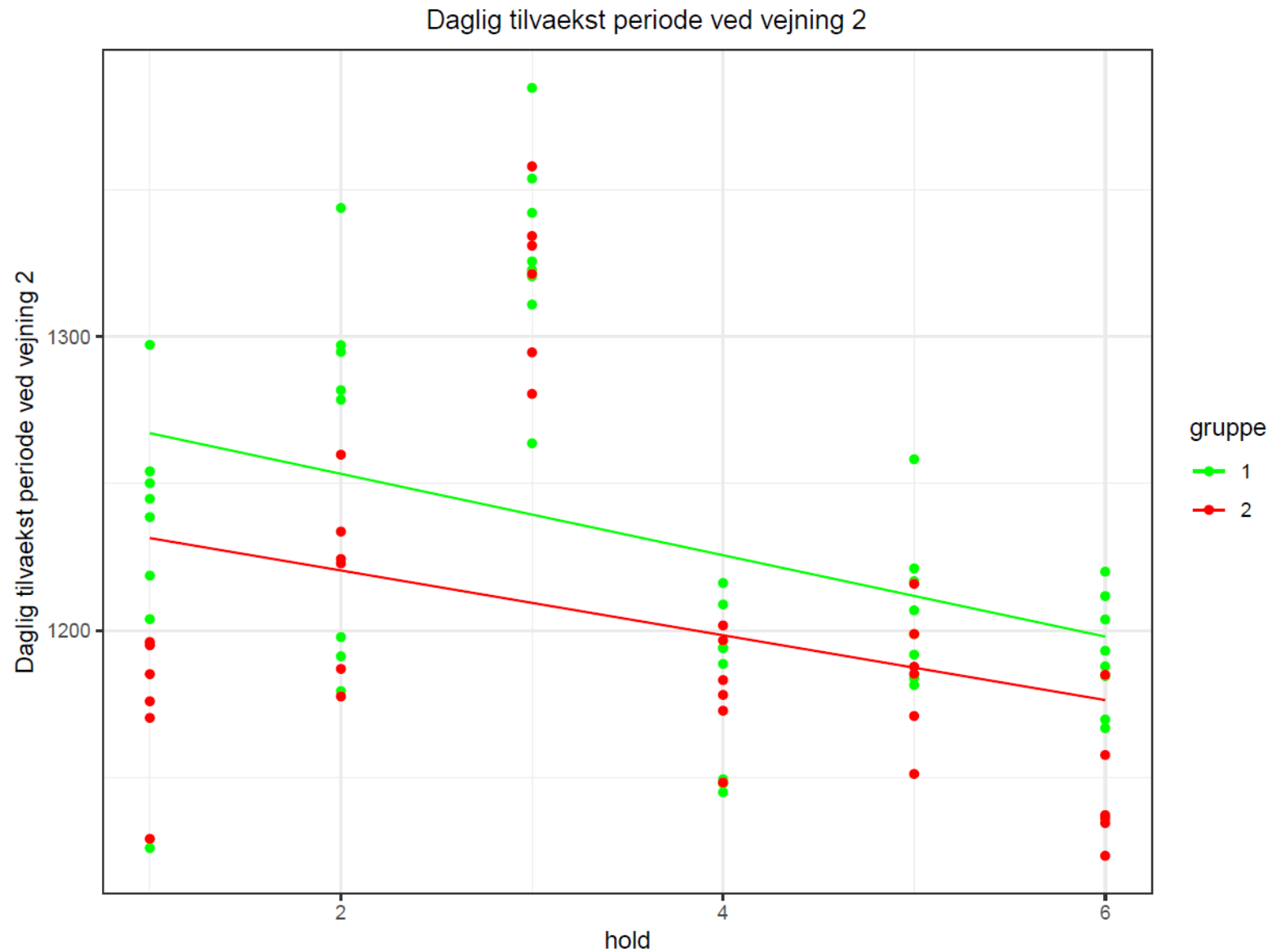
Foreløbige resultater, indsættelsesvægt



Foreløbige resultater, slagtevægt

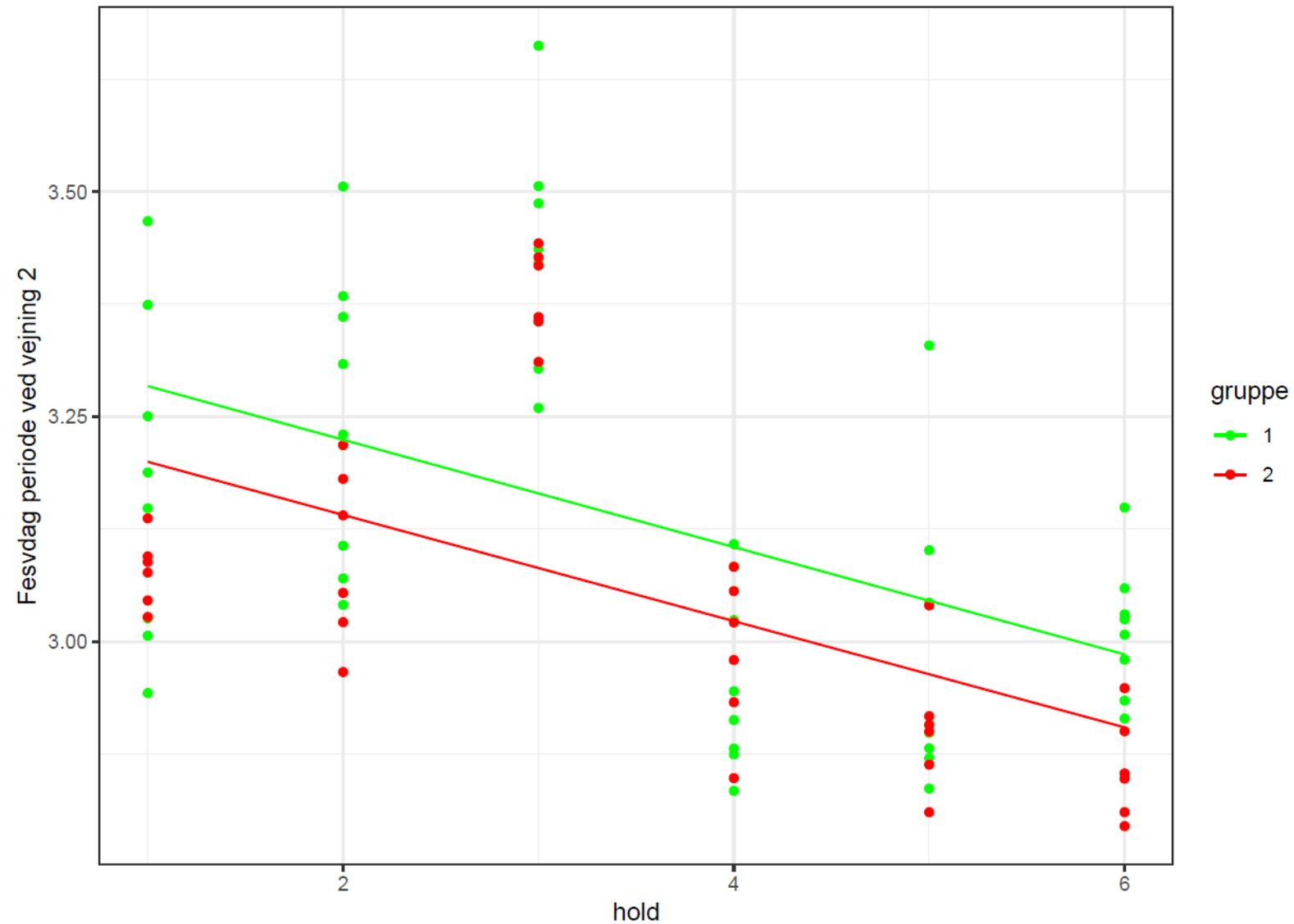


Foreløbige resultater, daglig tilvækst



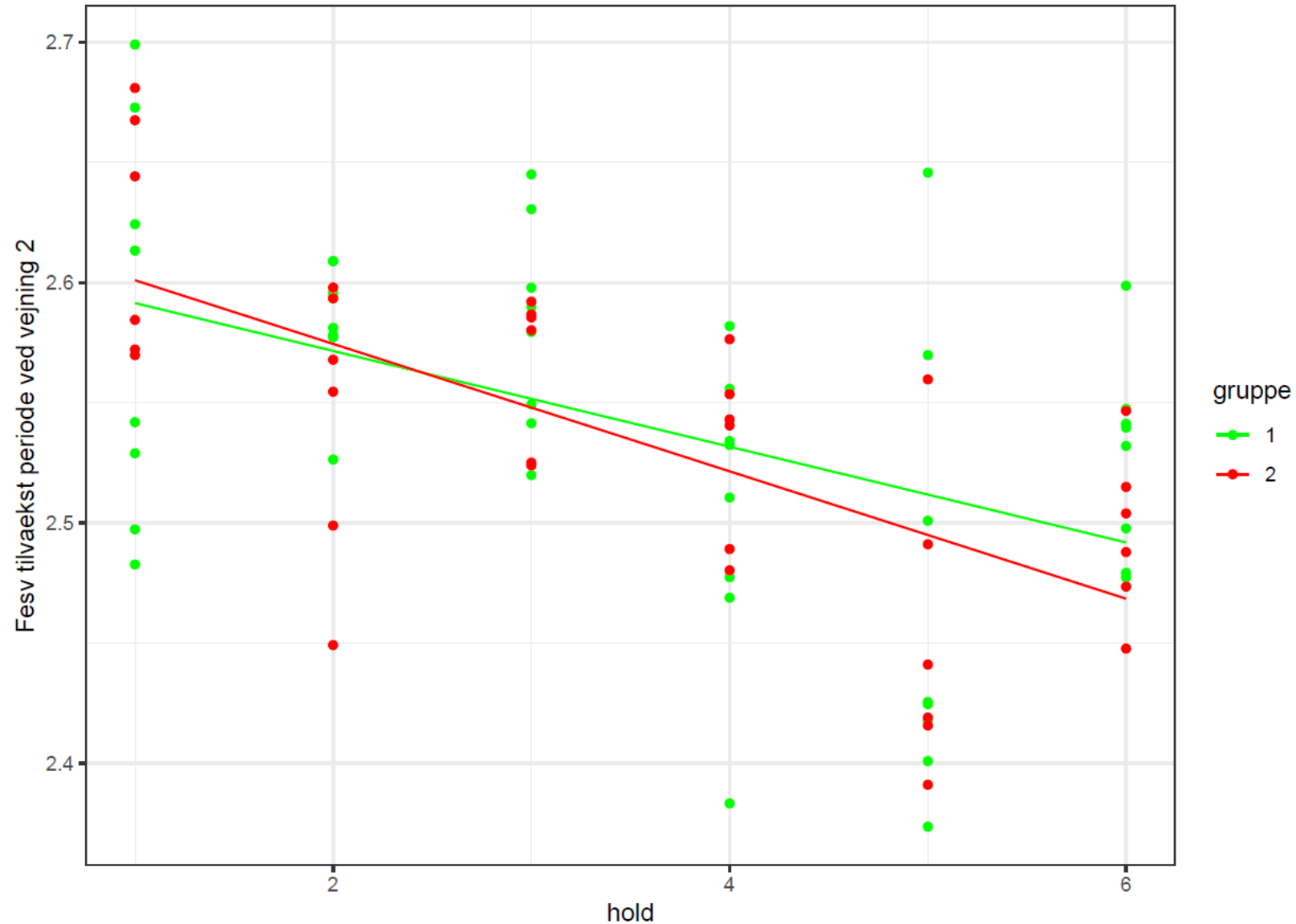
Foreløbige resultater, daglig foderoptagelse

Fesvdag periode ved vejning 2



Foreløbige resultater, foderudnyttelse

Fesv tilvækst periode ved vejning 2



Foreløbige resultater, store stier til slagtegrise

Gruppe	1, sti med 18 grise	2, sti med 45 grise
Antal stier	48	36
Antal indsatte grise	865	1621
Vægt ved indsættelse, kg	29,0	28,7
Vægt ved slagtning, kg	121	120
Daglig tilvækst, g/dag	1233	1204
Daglig foderoptagelse, FEsv/dag	3,13	3,05
Foderudnyttelse, FEsv/kg	2,54	2,53
Kødprocent, %	58,9	59,1
Døde, %	2,1	2,7

Store stier til slagtegrise, tidsforbrug

Registrering af tidsforbrug til udtagning af én gris pr. sti i hhv. små og store stier				
Tidsforbruget er registreret i sekunder				
Grisene vejede 30-35 kg				
Små stier				
Medarbejder	sti 3/4	sti 5/6	sti 7/8	gns
Eivind	5	26	18	16,3
Søren	28	5	21	18
Claus	20	28	24	24
				19,4
Store stier				
Medarbejder	sti 11/12	sti 10/13	sti 9/14	gns
Eivind	40	22	13	25
Søren	24	21	27	24
Claus	22	27	29	26
				25

Undersøgelse af betonkvalitet i teltoverdækkede gyllebeholdere

- Baggrund
 - Der er rapporteret om beholdere, hvor der ses en forvitring af betonen på indersiden af elementerne, når de er teltoverdækkede.
- Formål
 - Kortlægning af problemets omfang og evt. sammenhæng til syretilsætning eller anden praksis samt undersøgelse af forvittringerne af eksperter for at få afklaret, om fx betonkvaliteten i de forvitrede betonelementer har været for ringe.
- Metode
 - Ca. 20 tanke, +/- forvittringer, +/- syretilsætning
 - Billedoptagelser af tankenes indvendige overflade
 - Evt. analyse af borekerner

Undersøgelse af betonkvalitet i teltoverdækkede gyllebeholdere



Undersøgelse af betonkvalitet i teltoverdækkede gyllebeholdere



Undersøgelse af betonkvalitet i teltoverdækkede gyllebeholdere



The background of the slide is a photograph of several piglets in a pen. The piglets are light pink and white, with prominent ears. They are clustered together, and the image is slightly blurred, giving a sense of a busy farm environment. The lighting is natural, highlighting the texture of their fur.

Greenslurry seminar Full-scale pig house testing of the washing robot

Anne Lindstrøm Hansen

25. november 2024

Layout of the full scale finisher barn

Number of sections	6
Pens per section	16
Pigs per pen	17
Pig places per section	272
Ceiling height	2.90 m
Floor type	1/3 drained, 2/3 slatted
Feeding system	Liquid feeding
Ventilation	Combi diffuse
Chimneys per section	2 (stepless + on/off

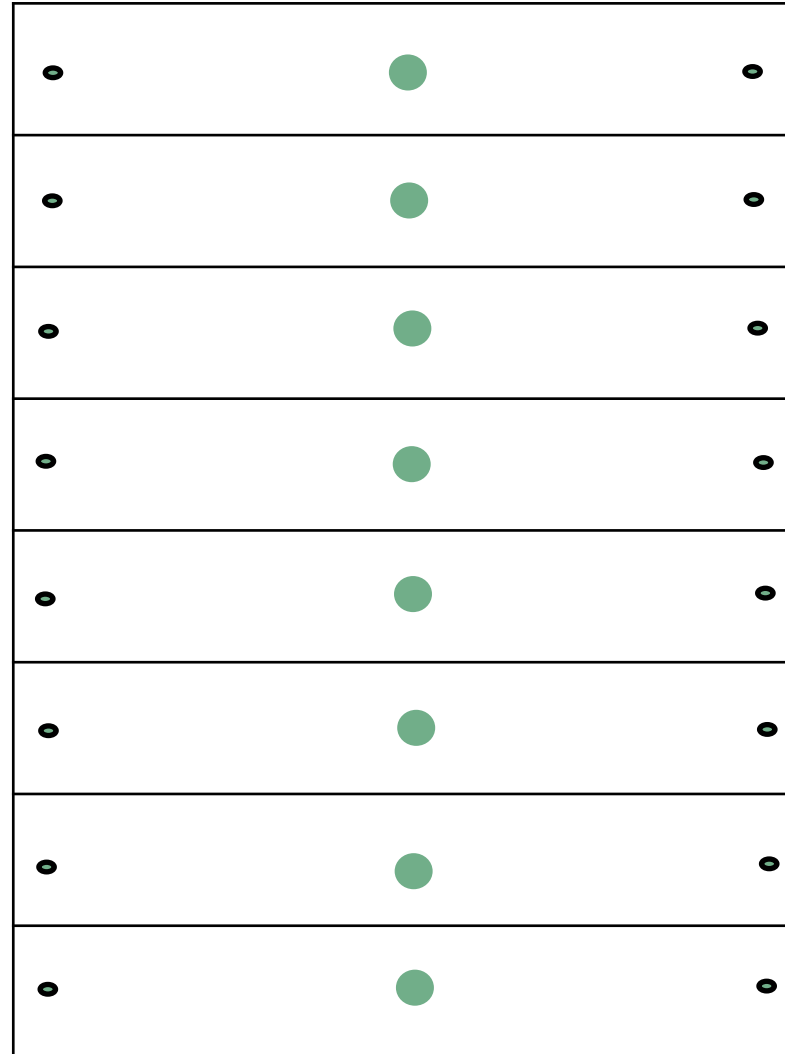
Layout of the finisher barn



Layout of the finisher barn



Layout of the slurry pits



Washing robot



Experimental groups

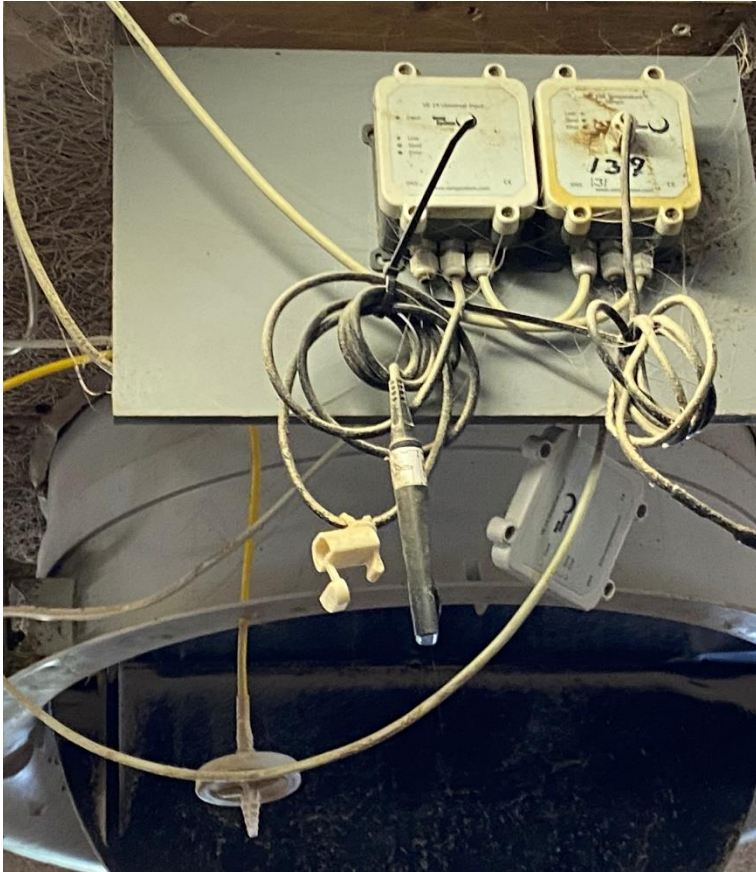
Group	Description
1	Control, weekly flushing (0, WF)
2	Slurry pit washed between each batch, two flushings per batch (2xwash,2F)
3	Slurry pit washed between each batch, weekly flushings (2xwash,WF)
4	Slurry pit washed before first batch, two flushings per batch (1xwash,2F)

Overview of measurements and flushings

Week	1				2				3				4				5				6				7							
Group	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4
Methane measuring, Picarro													■	■	■	■	■	■	■	■	■	■	■	■								
Odour, PTR-MS													■	■	■	■																
Flushing					■	■			■	■			■	■			■	■	■	■		■	■						■	■		

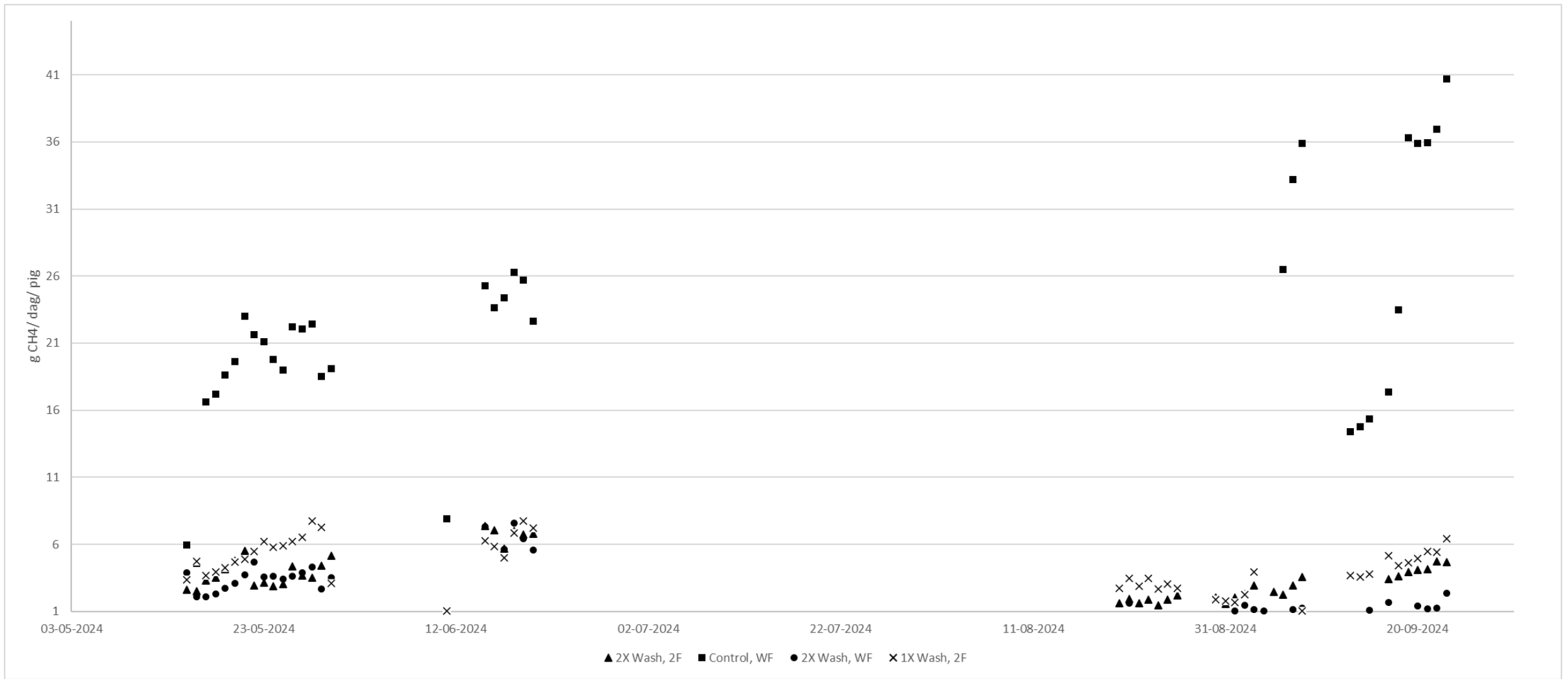
Week	8				9				10				11				12				13							
Group	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4	2	1	3	4
Methane measuring, Picarro	■	■	■	■	■	■	■	■																				
Odour, PTR-MS	■	■	■	■																								
Flushing		■	■		■	■	■	■	■	■				■	■		■	■			■	■	■	■				

Registrations

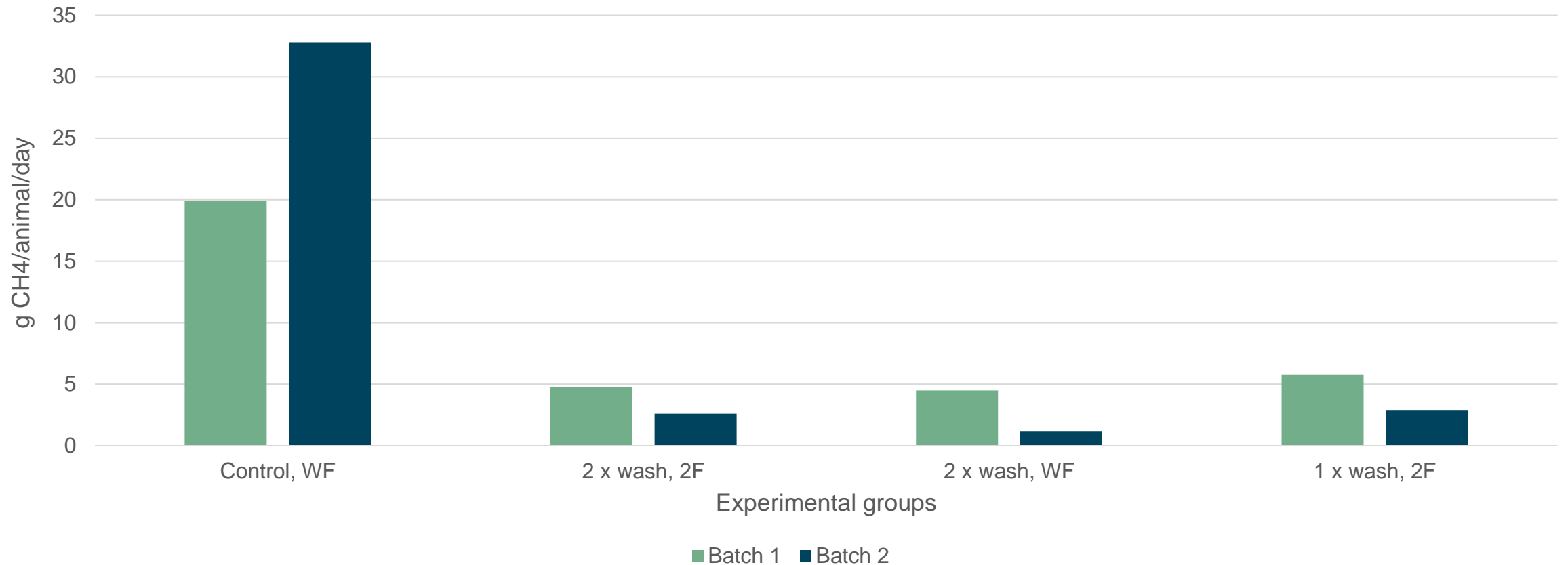


- Methane emission
- Odeur emission
- Ammonia emission (not calculated yet)
- Temperature
- Ventilation rate

Methane emission, plots



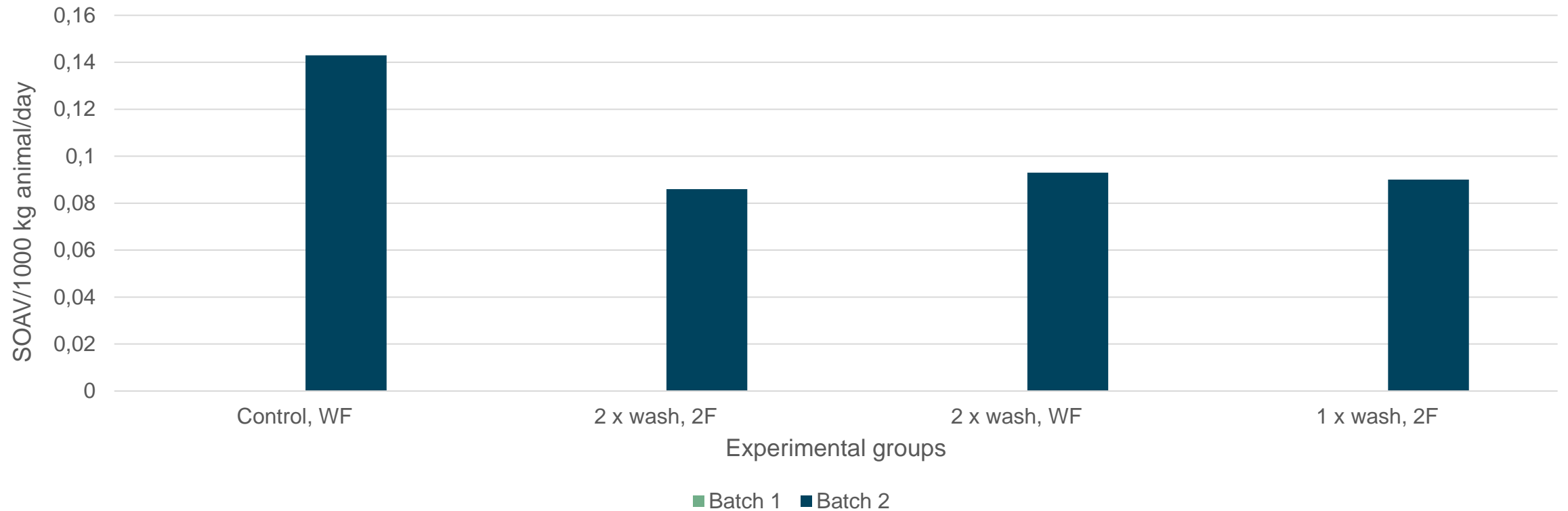
Methane emission, g/animal/day



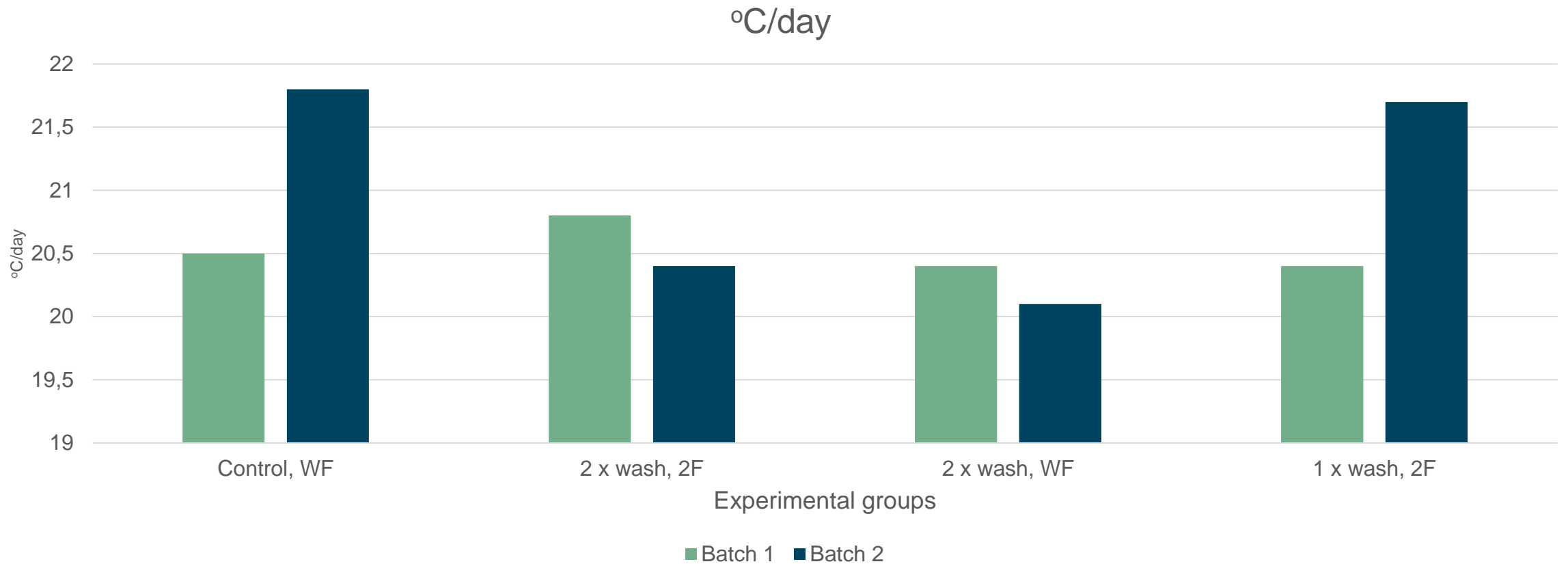
Enteric methane emission is subtracted and estimated to 2,9 g CH₄/animal/day

Odour emission, SOAV/1000 kg animal/day

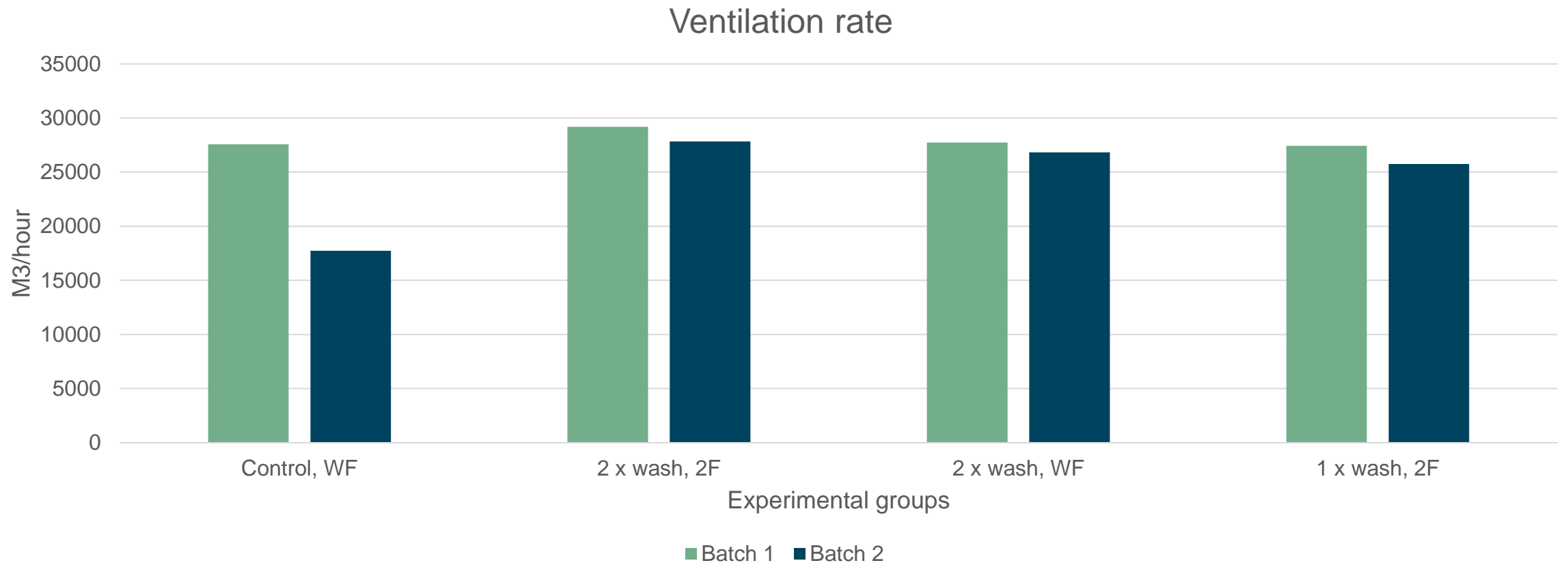
Odour emission



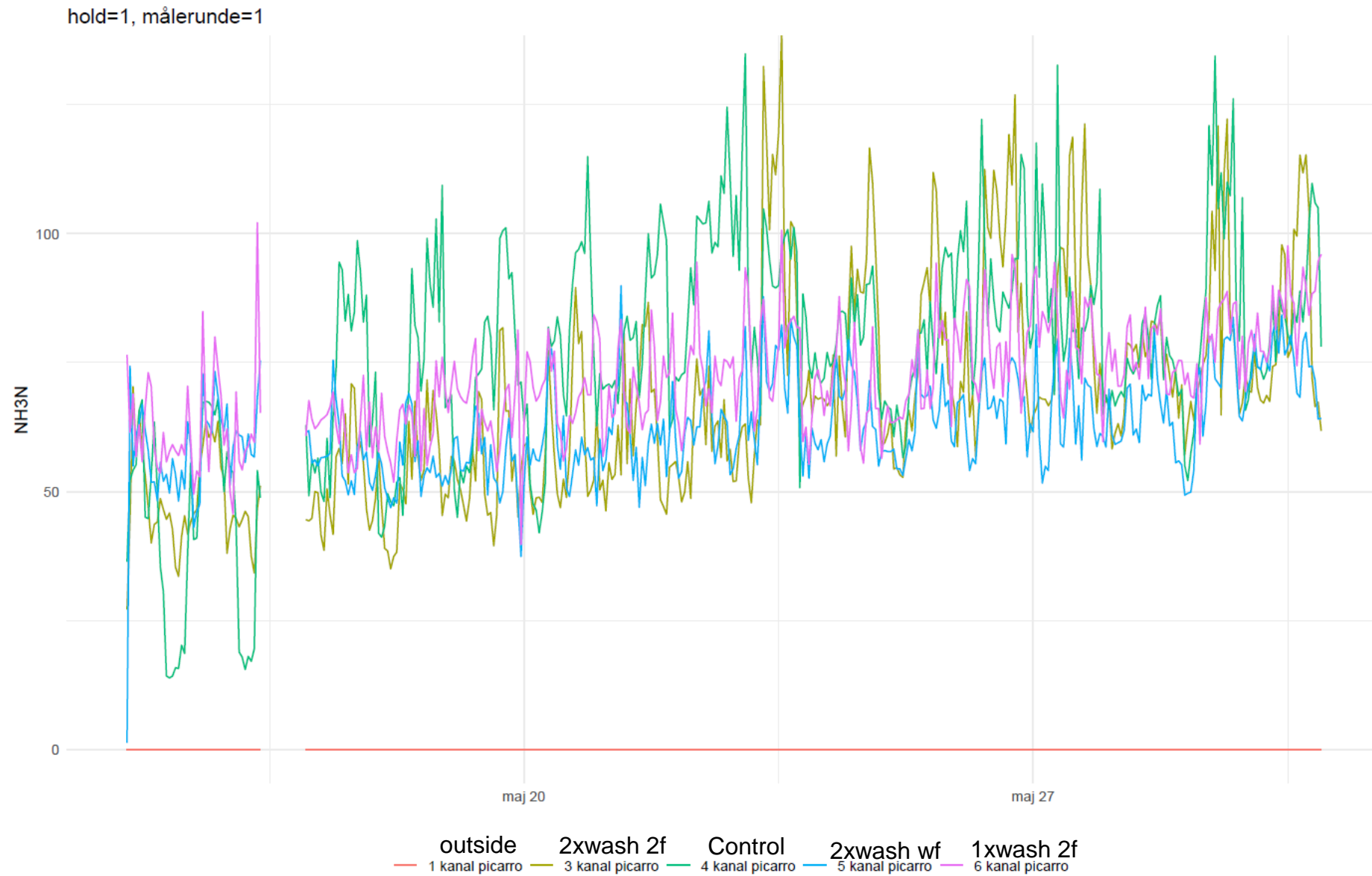
Temperature, average, °C/day



Ventilation, m3/hour



Ammonia, levels



Washing and water consumption

- Washing time per pen
 - Washing: 10-12 min
 - Moving equipment: 3 min
- Water consumption
 - First washing: 600 l/pen – 35 l/pig
 - Second washing: 400-480 l/pen – 24-28 l/pig
 - It saves time if washing happens just after slurry flushing

Conclusions

- Large reductions in methane emissions - up to 70-80 %
- Long term effects? – almost same effect of one vs. two washings
- Odour reductions – between 30-40 %
- Level of water consumption is not frightening