

A close-up photograph of several piglets huddled together, with a sow's head visible in the background. The piglets have pink skin and large, upright ears. The sow is partially visible in the upper right, looking towards the camera.

The sow takes care of many piglets

Dennis Højlund Jørgensen, Molbo Agro
Flemming Thorup, SEGES Innovation

Grisekongressen, October 25th, 2023, Herning

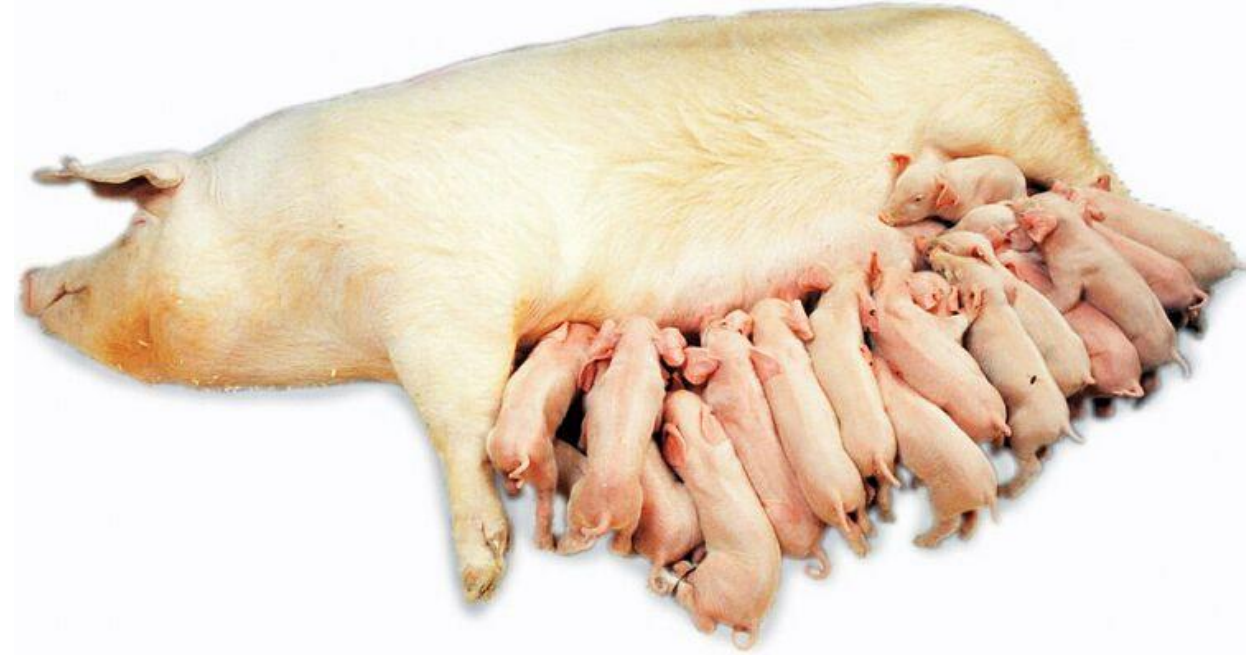
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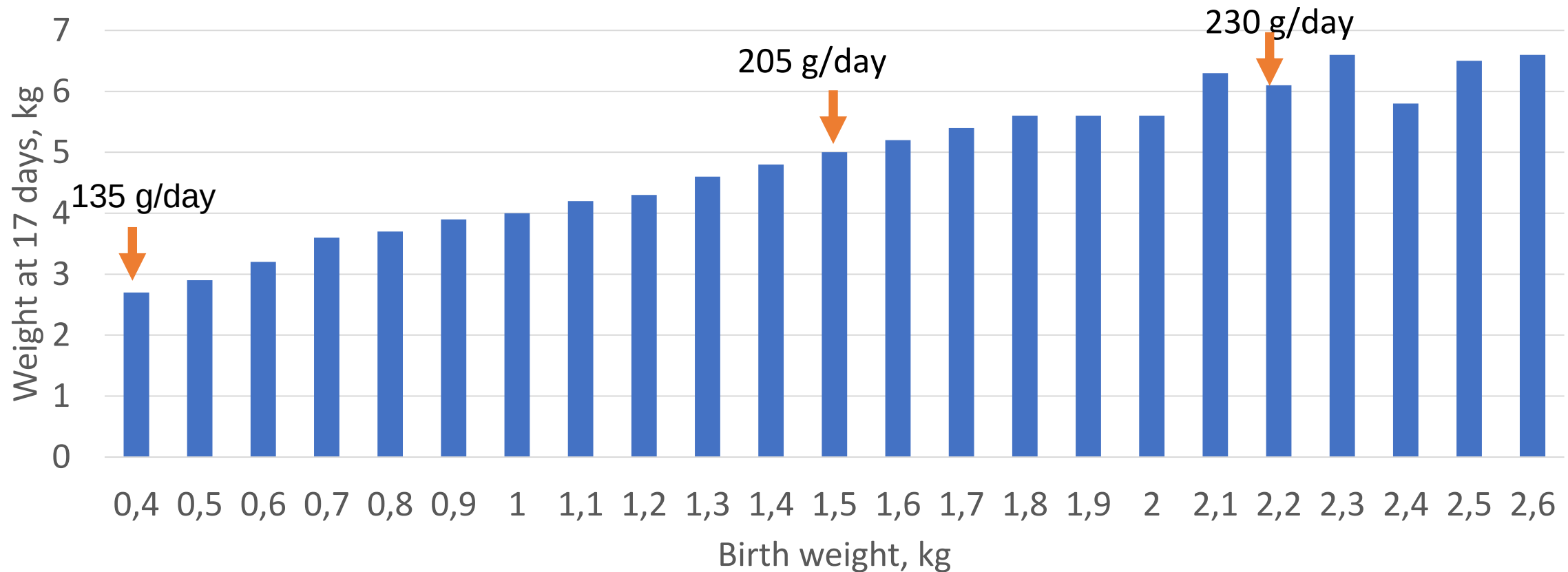
SEGES
INNOVATION

We want the sow to wean many large piglets

- Flemming
 - This is how piglets grow
 - Piglets and teats gone missing
 - Factors affecting piglet growth
- Dennis
 - Employees at Molbo Agro
 - Production results
 - Nurse sows
 - Work plans



A large piglet at birth weighs more on day 17



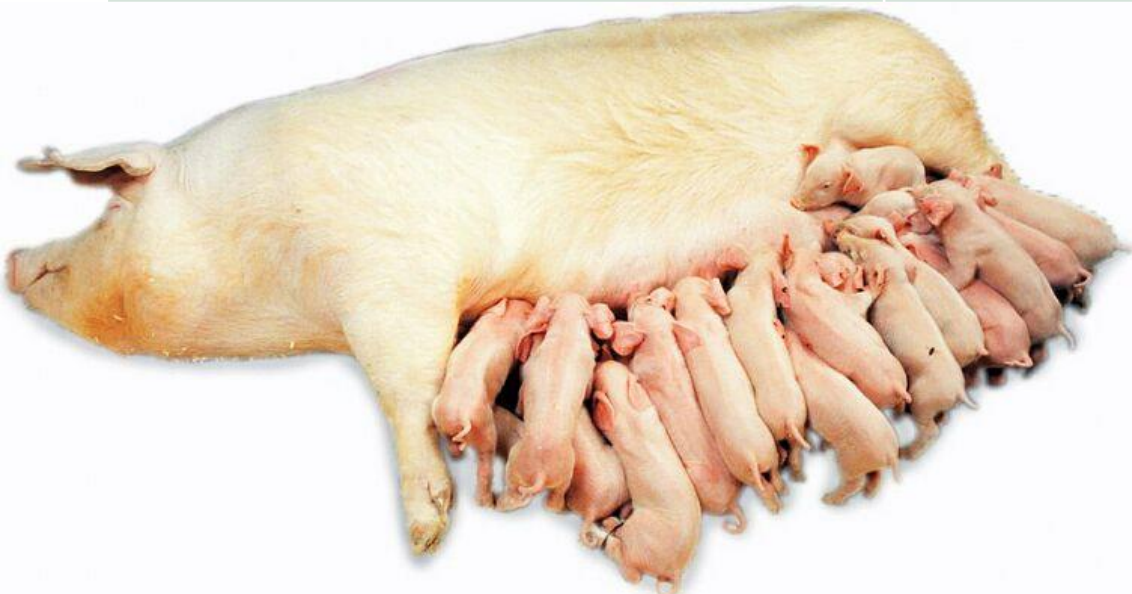
You cannot feed the sow extra to achieve a higher birth weight
If the sow by mistake gets too little feed before farrowing, then birth weight will be reduced

Trial report no. 1153. 8,000 pigs

When small piglets are given to a "small nurse" and the largest piglets to a nurse sow, do not adjust litters by size of piglets

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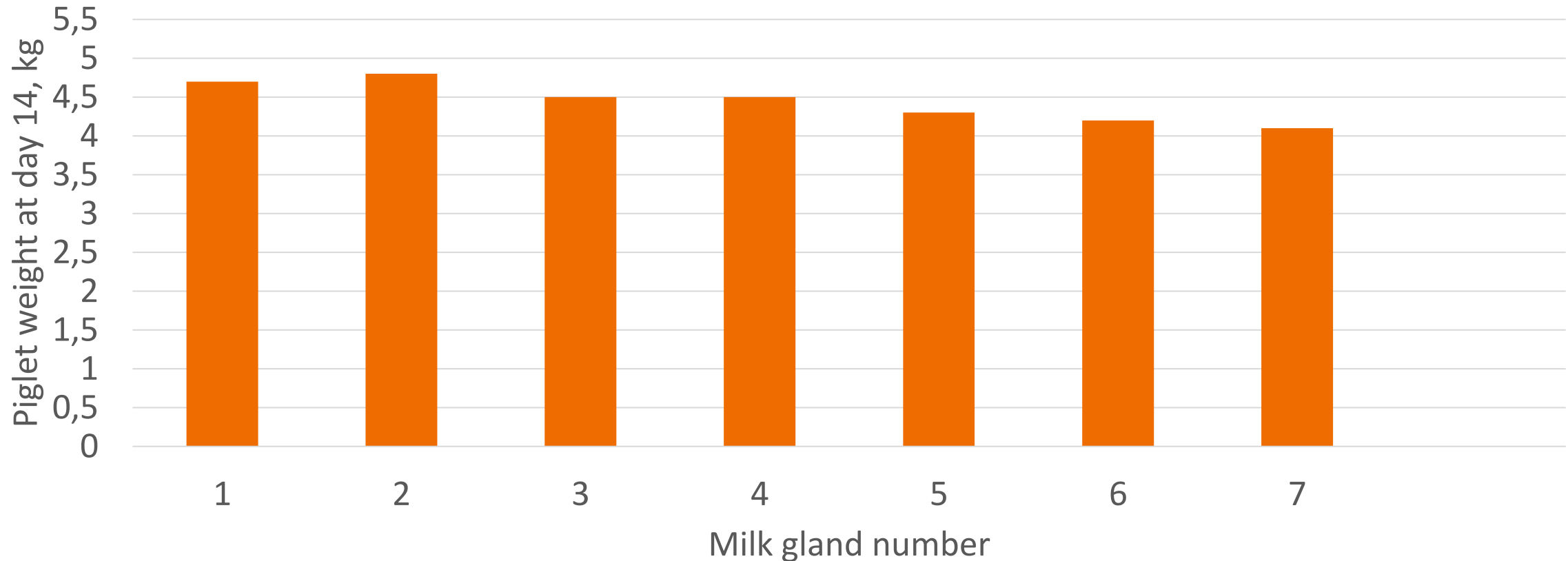
Group	Piglets were NOT sorted by weight	Piglets were sorted by weight
Number of litters	227	224
Weight before litter adjustment, kg	1.33	1.30
Weight by day 17, kg	4.5	4.5
Survival, %	93%	92%
Piglets weaned from their own mother, %	69%	51%



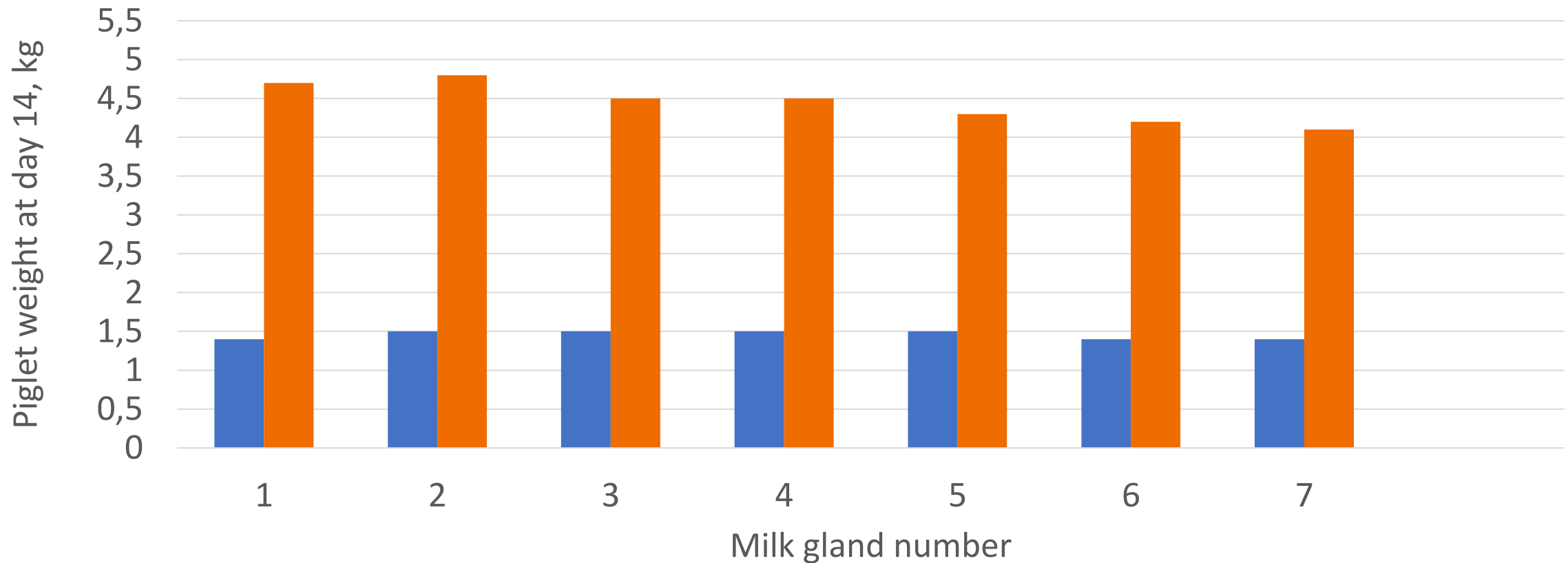
Trial report no. 1153. Two herds

The front milk glands produce more milk

On day 14, piglets at the first glands weigh $\frac{1}{4}$ - $\frac{1}{2}$ kg more than the rest of the litter
All glands can feed and wean a piglet



The piglets do not know that the first glands are the best



Piglets at both front and back milk glands weighed 1.5 kg at birth

Thesis by Lise Lotte Koldsø, 2009

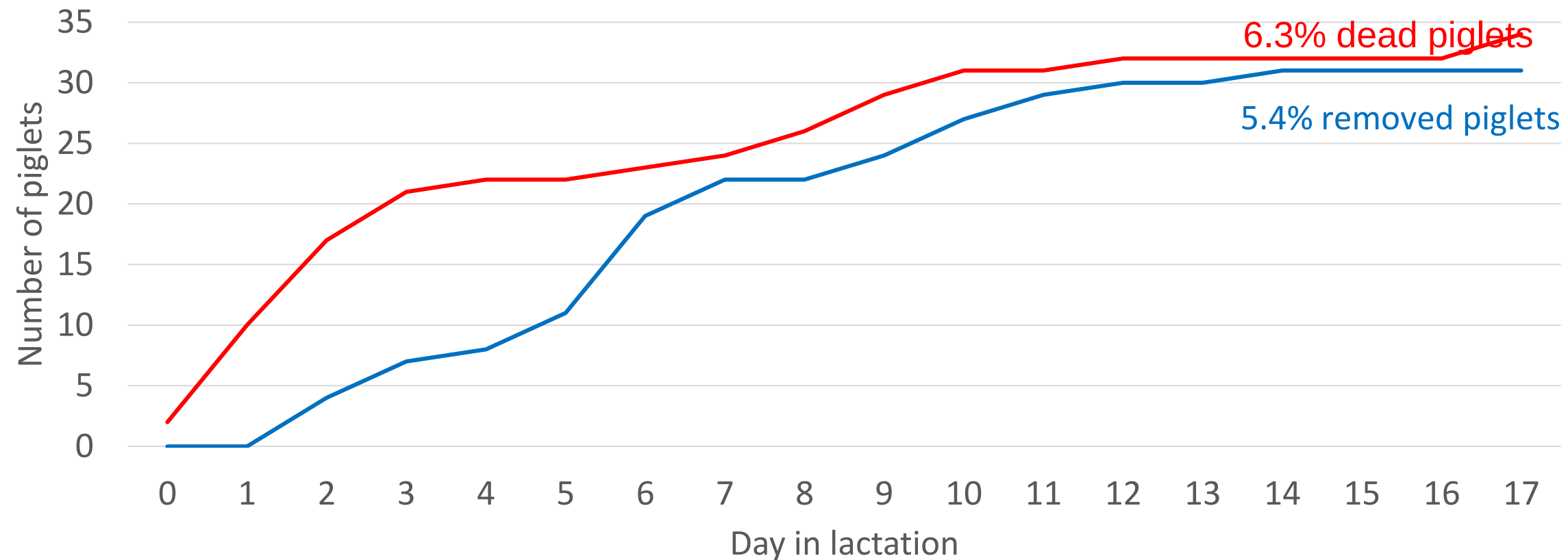
Loss of piglets and dry milk glands

- All gilts should have at least 14 milk glands
- The best predictor for the number of functional teats at farrowing is the number of teats on a female piglet at weaning
- Check for milk gland tissue and intact teats just before or after farrowing



Loss of piglets by day in lactation in 44 sows with 15 milk glands, nursing 13 piglets

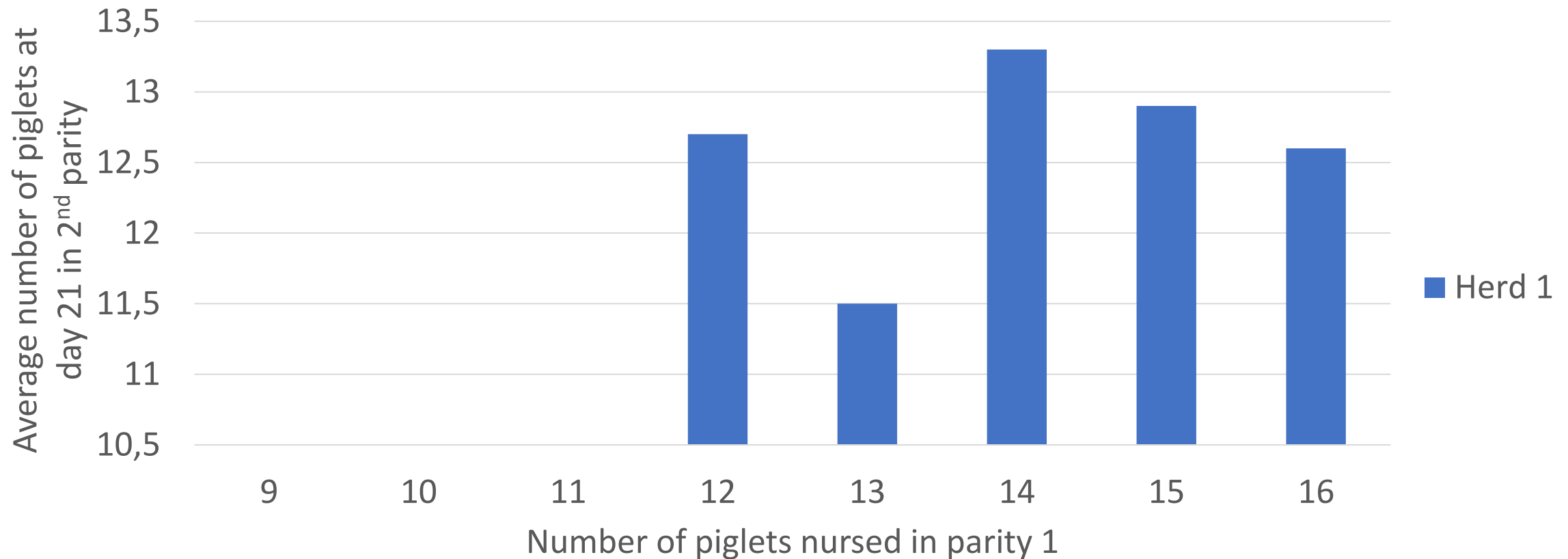
Sum of piglets missing during lactation



Dry milk glands

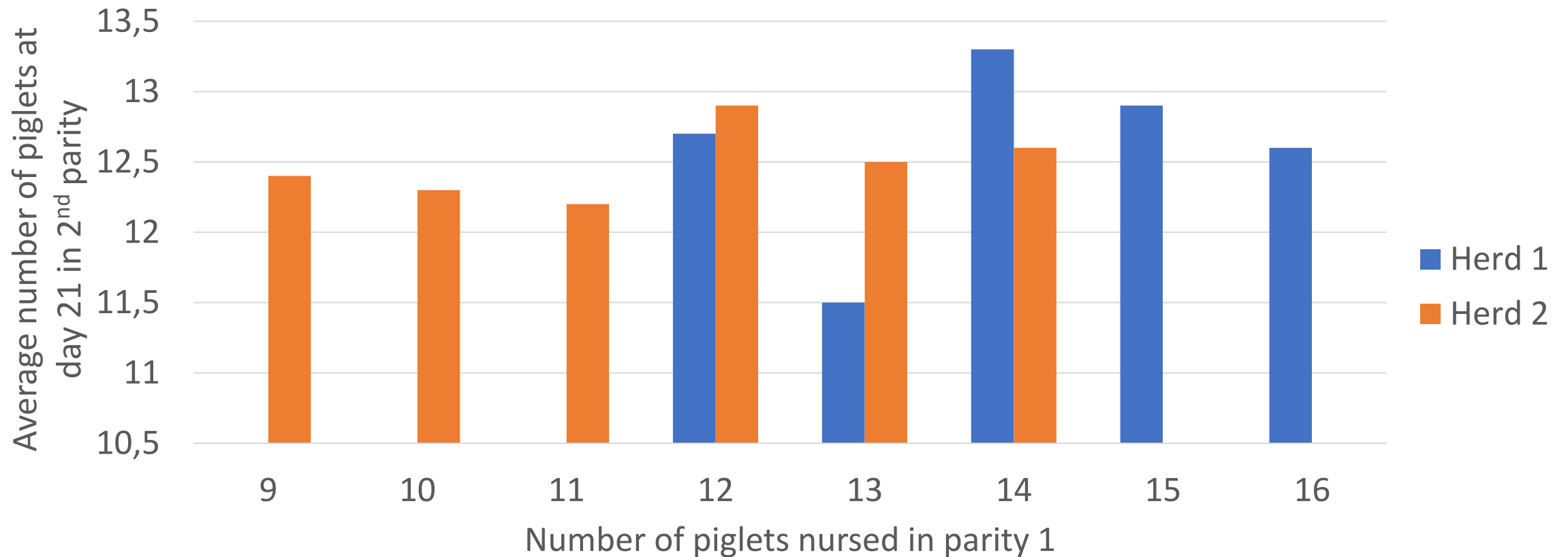


The number of piglets on day 21 is not a good indicator of how many piglets the sow can nurse in the next litter



Correlation between piglets nursed day 21 in first and second parity
Minimum 5 sows per column.

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Effect on weaning weight when moving piglets

- Moving a piglet before it is 48 hours old does not affect weight at weaning
- Moving a small piglet that is more than 48 hours old, will reduce weight at weaning by app. 600 gram, but may just have saved the life of this piglet.
- Moving a large piglet that is more than 48 hours old, will reduce weight at weaning by app. 1 kg



Other factors that reduce weaning weight

- Piglets born by gilts weigh app. 150 gram less at birth
- Piglets nursed by gilts grow app. 7 gram less per day = they weigh 150 gram less at weaning
- One extra piglet in the litter reduces weaning weight for each piglet in the litter by 150 gram
- One extra day of nursing increases weaning weight by 200 gram
 - If a nurse sow weans its 14 piglets 4 days ahead of planned weaning, weaning weight drops 800 gram per piglet or 11.2 kg per litter



Conclusion

- Birth weight of the piglet affects weaning weight
- Extra nursing days increase weaning weight
- Nurse sows reduce average weaning weight
- The piglet does not know which teat is the best
- A dry milk gland is caused by a missing piglet. This gland will often produce milk again after the next farrowing
- The number of weaned piglets does not indicate how many piglets the sow can nurse in the next litter



MolboAgro

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Driftsleder - Dennis Højlund Jørgensen

Agenda

- The team:
 - Management
 - Sow unit/weaner unit & finishers
- E control/herd results
- Nurse sow specifics
- Timelines:
 - Daily routines, farrowing unit and weekly management
- What is it we do?
- Round up and questions

The team - Management

Martin - Owner



Dennis – Herd manager



Jesper – Field responsible



The team – sow unit/weaner unit & finishers

Anastasiia M. Johanne - apprentice



Anastasiia C.



Alex



Taras



Facts

- Roughly 680 sows/year.
- Annual production of 25-26,000 weaners.
- Finishers: 7-8,000 a year.
- Sale of 18-19,000 weaners.
 - Same buyer DK
- Fields roughly 550 hectare.
- Feed mixed on-farm on all sites.
- Gilts are purchased.
- Male pig production.



E control/herd results

Results per litter	Planned	30.03-23-28.06.23	29.12.22-29.03.23
Live born/litter	18,5	18,7	18,2
Still born/litter	1,5	1,9	2
Weaned/litter	16,5	16,8	15,2
Weaned/ weaning	13,75	13,4	12,8
Lactation days/litter	30	29,5	31,6
Weaning weight/piglet	7	7,2	7,2
Mortality, %	8	10,4	16,5

E control/herd results

Reproduction	Planned	30.03-23-28.06.23	29.12.22-29.03.23
Weaned piglets/sow /year	40	38.7	34.2
Weaned piglets	Planned	30.03-23-28.06.23	29.12.22-29.03.23
Gain/day	500	477	499
Feed conversion, FEsv	0,75	0,79	0,86
Mortality after weaning, %	1	1.4	2

Nurse sows

- Step 1
Find a 1-2-3 parity sow with piglets ready for weaning
- Step 2
Find a 1-2-3 parity sow with healthy 14-18-day-old piglets
- Step 3
Find a 1-2-3 parity sow with healthy 3-4-day-old piglets
- Step 4
Move the largest newborn pigs to the sow with 3-4-day-old piglets
- Step 5
Litter adjustment: Collect all small piglets with a sow with medium-large udder.
- Step 6
Adjust the rest, but keep as many as possible where they were born



Timeline – Daily routines

7:00

- Check farrowings
- Give water to sows
- Feed sows and piglets
- Give potato flour
- Give water to piglets
- Make nurse sows

9:00

- Break and plan the rest of the day
- Discuss problems

9:35

- Prepare feed for sows
- Check piglets
- Check farrowings

11:30

- Feed sows/give water

12:00

- Break

12:35

- Various tasks

14:30

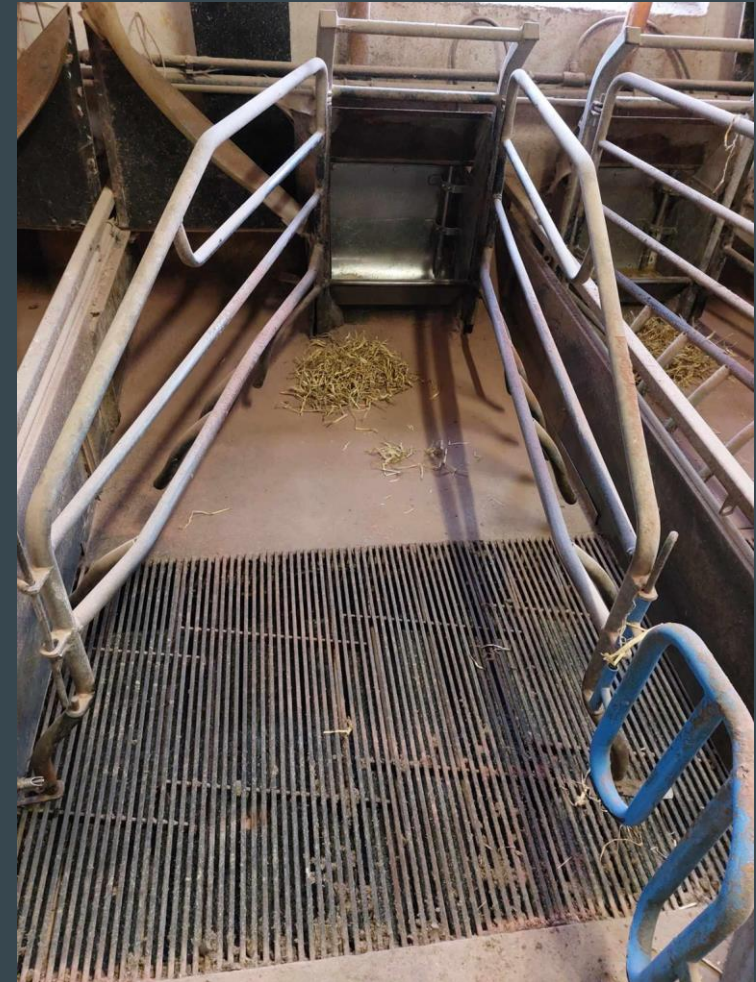
- Feed sows/give water
- Feed piglets
- Check farrowings

15:00

- Working day ends

Timeline – Farrowing unit - (Day -7)

- Move sows to farrowing unit
- Straw
- Water
- 3.5 feed units/day until farrowing
- Glucose and Glauber salt until farrowing



Timeline – Farrowing unit – (Day 0)

- Forceris + draxxin
- Litter adjustment
 - Biggest piglets moved to nurse sow
 - Smallest piglets moved to 2/3 sow
 - The rest placed with other sows, but with own mother as far as possible
- Count teats
 - Gilts: +1-2 piglets above number of teats
 - Rest: +1 above number of teats
- Water for sows
- Water for piglets (nipple drinker)



Timeline – Farrowing unit – (Day 3)

- Follow-up
 - Final adjustments before the litter is fixed
- Tail docking
- Batch is fixed



Timeline – Farrowing unit - (Day 7)

- Turn off heat lamps
- Follow-up
- Start on weaner feed

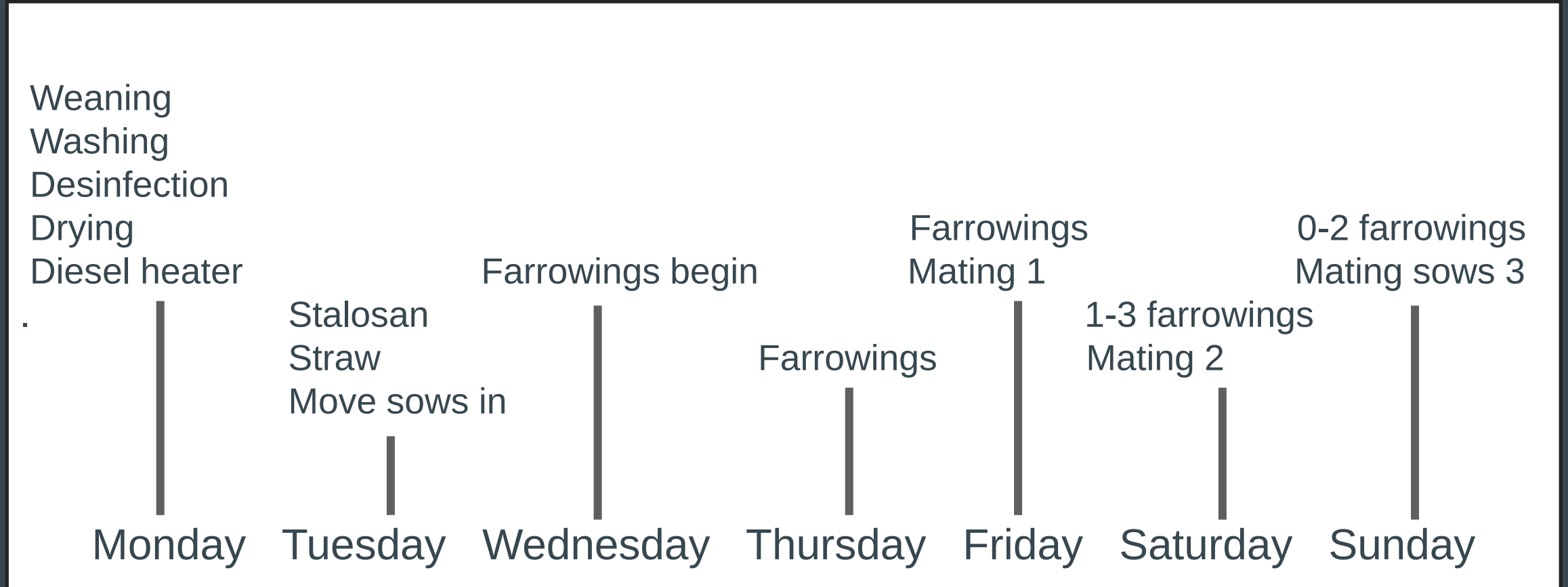


Timeline – Farrowing unit – (Day 30)

- Weaning
 - All pigs in the section are weaned, regardless of weight
 - But considering age
 - Also applies to litters with weak piglets
 - To keep infection pressure low



Timeline – Weekly management



What do we do right?

- Two employees in the farrowing unit every morning
 - One checks farrowings/nurse sows etc.
 - One feeds pigs/checks the piglets
- Prepares the sow for farrowing
 - See day -7 timeline for the farrowing unit
- We are lazy – in the good way
 - It is not us, but the sow that takes care of the piglets.

What do we do right?

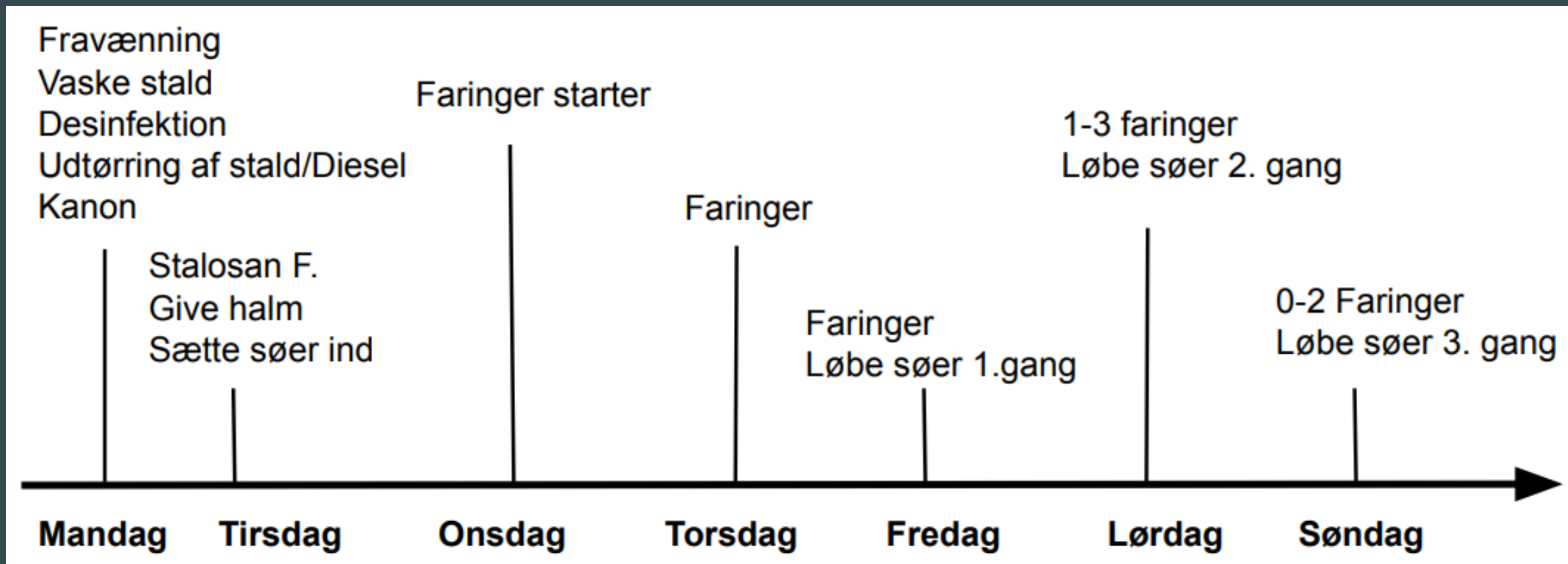
- We are a team, we stick together and help each other out
- As the daily manager, I listen to every member of the team
- I am passionate and thorough – that rubs off on my co-workers
- I start in the sow unit every day and discuss/solve all issues by 9:00
- We are all different, we have different opinions and qualities, but we respect and help each other
- Team spirit = results!

Round up & Questions

E control/herd results

			30.03.23	29.12.22
			28.06.23	29.03.23
		Plan	Sohold	Sohold
Kuldresultater				
Lev. fødte/kuld	stk	18,5	18,7	18,2
Dødfødte/kuld (frav. søer)	stk	1,5	1,9	2
Frav./kuld	stk	16,5	16,8	15,2
Frav./fravænning	stk	13,75	13,4	12,8
Dieg. dage/kuld	Dage	30	29,5	31,6
Frav. vægt/gris	kg	7	7,2	7,2
Dødelighed i farestald	%	8	10,4	16,5

Timeline – Weekly management



E control/herd results

		30.03.23		29.12.22
		28.06.23		29.03.23
		Plan	Sohold	Sohold
Reproduktion				
Frav./årsso	stk	40	38,7	34,2
Fravænnede grise				
Daglig tilvækst	Gr	500	477	499
Daglig foderforbrug	FEsv	0,75	0,79	0,86
Dødelighed efter frav.	%	1	1,4	2