STØTTET AF

Svineafgiftsfonden

Feed your way to better sow performance

Gunner Sørensen, Nutrition & Health

PattegriseLIV 2.0, 22 September 2020

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Today, we will talk about

- It all starts in the gestation
  - Amino acid standards for gestating sows
  - Feeding until farrowing
  - Feeding strategies during gestation
- Correct nutrition and management = high milk yield

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The Danish Agro concept – in the farrowing unit

Gram dig. lysine per feed unit (FEso) Feeding strategy	4.0 Recommendation	6.0 + 0.5 FEso/day the last 4 weeks
Pigs weighed	4139	4237
Total-born pigs/litter	21.0	20.8
Birth weight/total-born pig, kg	**1.28**	**1.29**
Liveborn pigs/litter	18.9	18.8
Birth weight/liveborn pig, kg	**1.31**	**1.31**
Stillborn pigs/litter	2.0	1.9
Birth weight/stillborn pig, kg	**1.01**	**1.05**

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New and old standards for gestating sows
Significant revision of amino acid profile

	Gram per FEso		% of lysine	
Standard	Old	New	Old	New
Dig. protein	90	90		
Dig. lysine	3.3	4.0 ⇧	100	100
Dig. methionine	1.6	1.2⇩	48	30 ⇩
Dig. threonine	3.0	2.9 ↘	91	72↘
Dig. tryptophan	1.0	0.8 ↘	30	20 ↘
Dig. isoleucine	3.0	2.4⇩	91	60 ⇩
Dig. leucine	2.6	4.1 ⇧	79	102 ⇧

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New GUDP project "Born2Live" (AU, SEGES, VJA)

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Preliminary data analysis
Effect of daily feed dose

- 48 sows in 2 batches (8 sows/treatment)
  - 24 first parity sows
  - 24 second parity sows

  Constant daily feed dose from day 108
  - GR1: 2.0 FEso/d
  - GR2: 2.7 FEso/d
  - GR3: 3.4 FEso/d
  - GR4: 4.1 FEso/d
  - GR5: 4.8 FEso/d
  - GR6: 5.5 FEso/d

- Sow and pig productivity analysed on day of farrowing

Expected effect of daily feed dose

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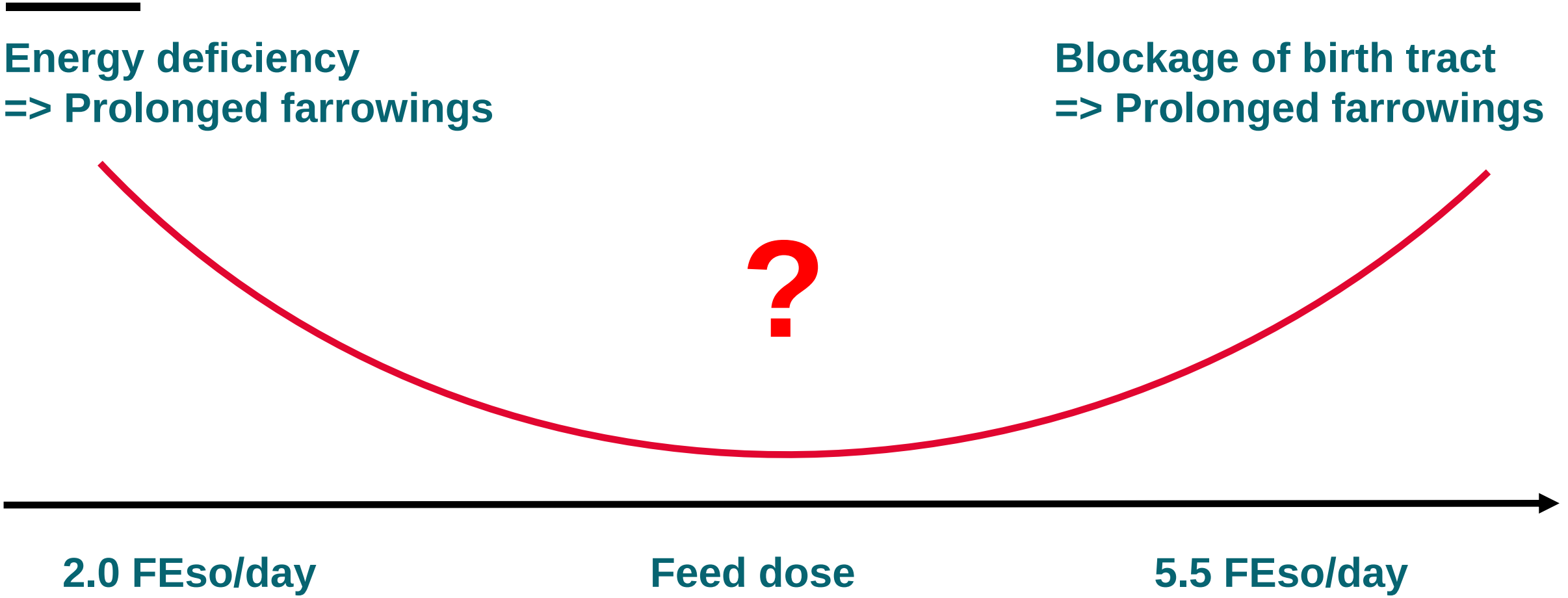

Optimum feed dose

	FEso/day
Duration of farrowing and birth interval	4.1
Stillborn	4.1
Obstetric aid	4.1
Pig vitality	3.4
Sow colostrum yield	3.4
Pig colostrum intake	4.1

All sows benefit from 3.4-4.1 FEso/day from transfer day 108 until farrowing is complete

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Anbefalede foderkurver (nye)
FEso pr. so pr. dag

Dage	Fed	Middel	Mager	Gylte
0	2,5	3,0	4,5	2,2-2,4
26	2,5	3,0	4,5	2,2-2,4
31	2,3	2,3	3,5	2,5-2,7
77	2,3	2,3	3,5	2,5-2,7
84	3,5	3,5	3,5	3,3
112	3,5	3,5	3,5	3,3
114	3,5	3,5	3,5	3,3
115	3,5	3,5	3,5	3,0-3,5
Faring	3,5	3,5	3,5	3,0-3,5

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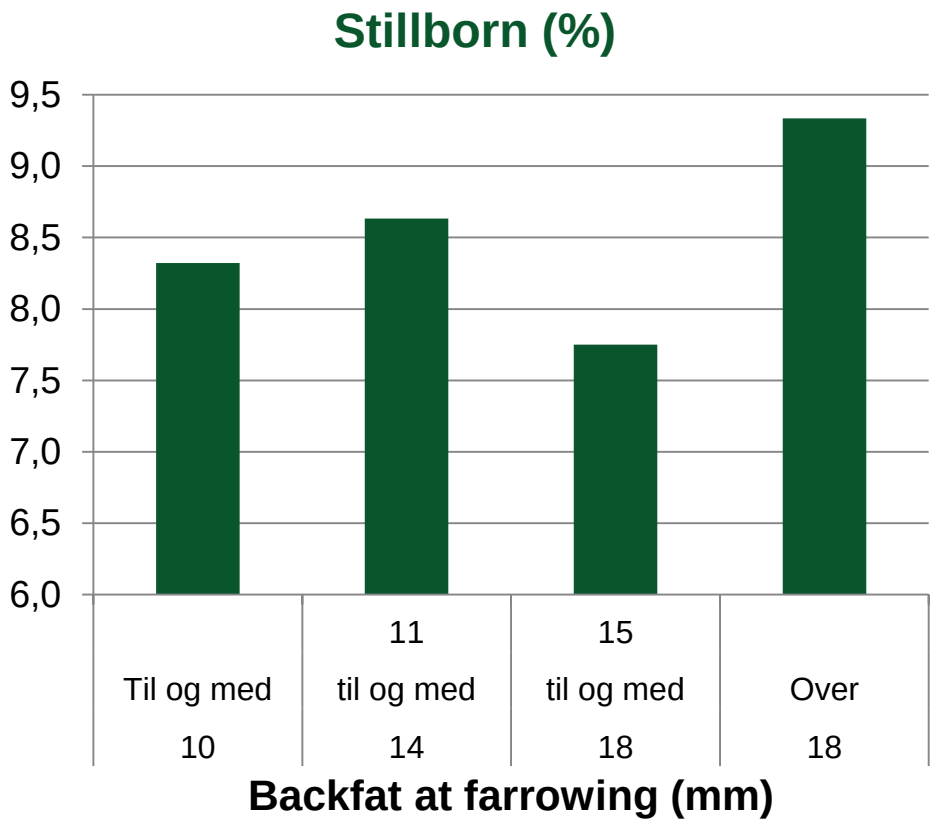
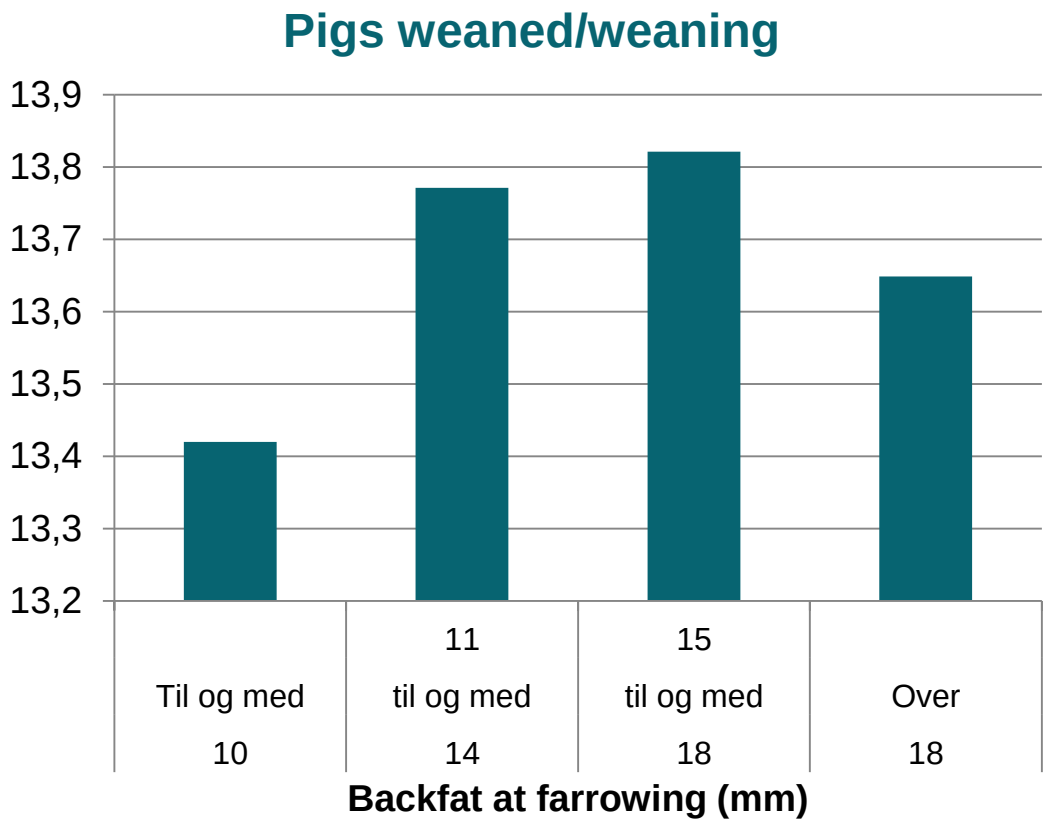
Pig farms with top management





Data analysis by Gerben Hoornenborg, Vet-Team

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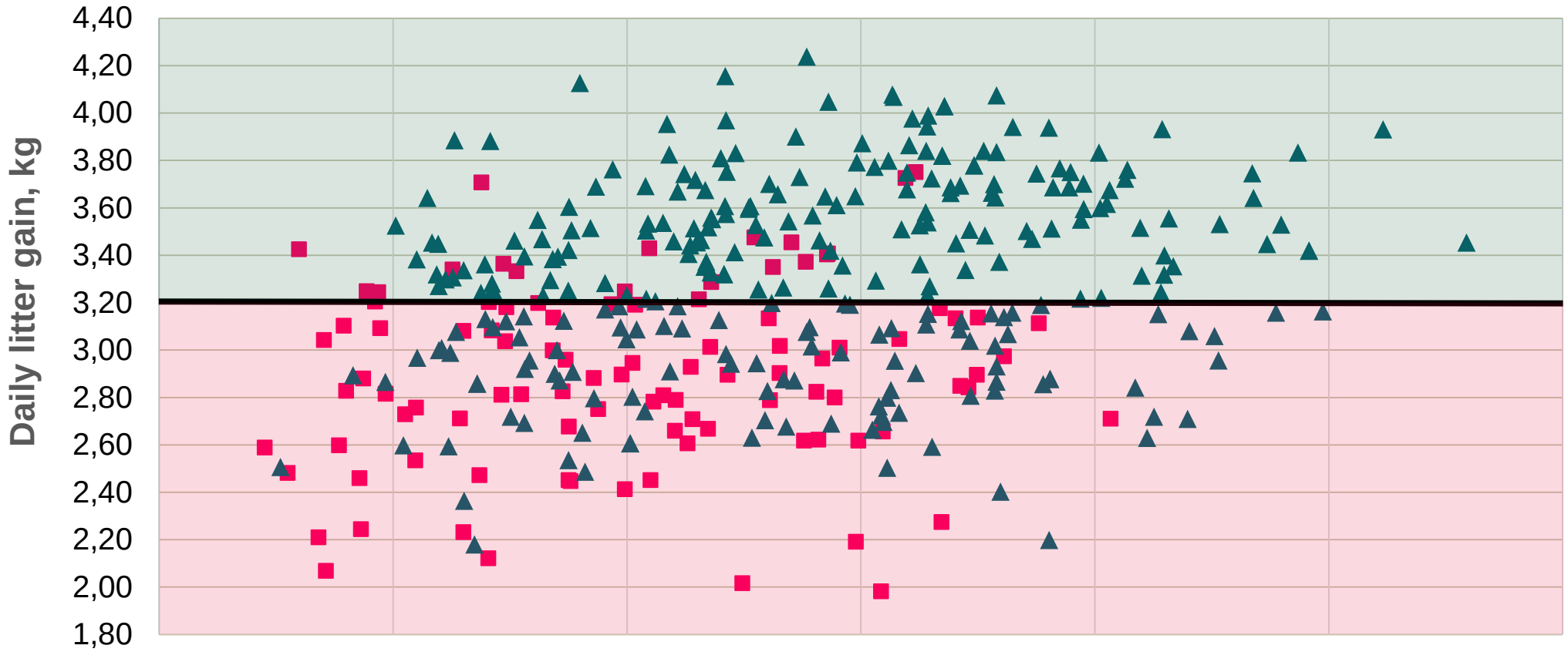
Performance of the best sows today?

First parity sows (■) and older sows (▲) – high-prolific herd



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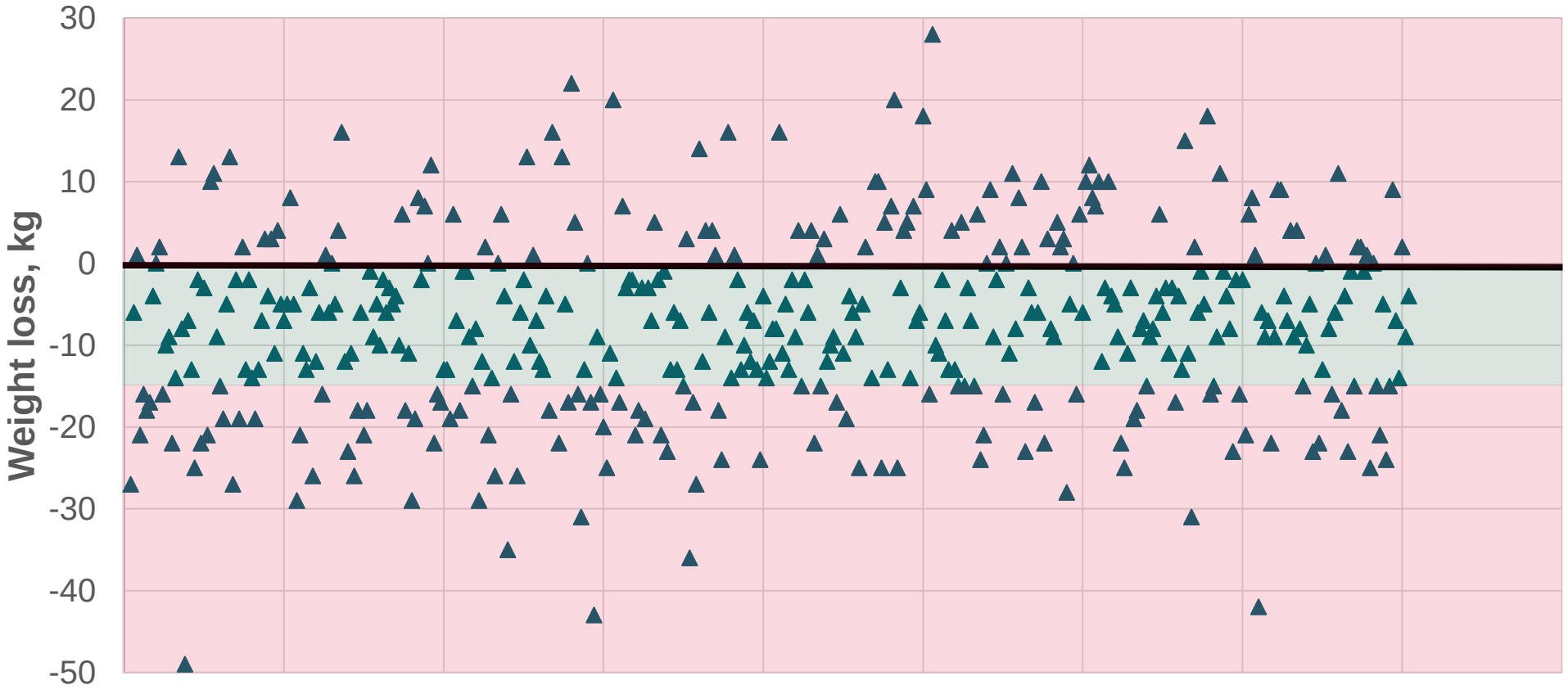
Cost of lactation?
Weight loss in a high-prolific herd



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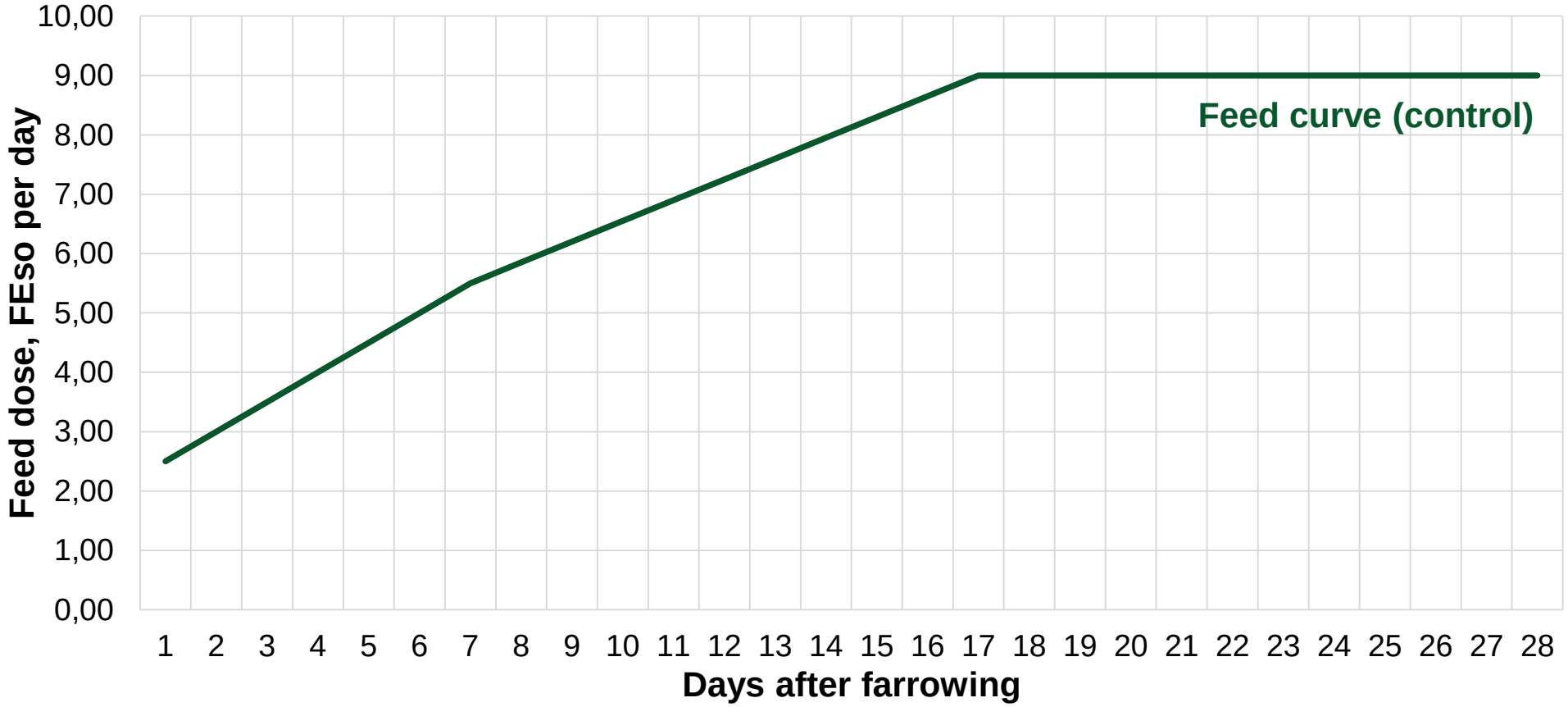
Feed curve in a ‘super herd’



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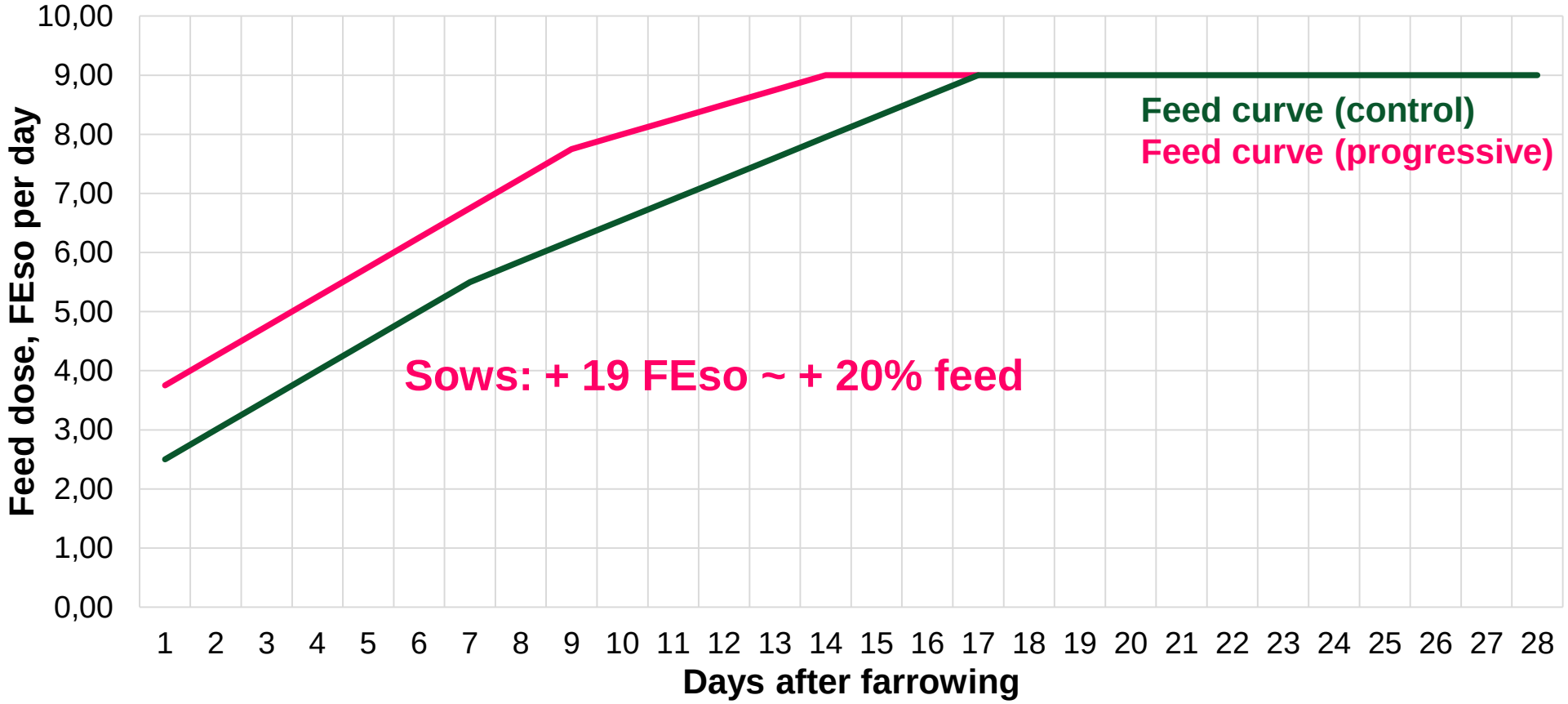

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Outcome

	Control	Progressive curve	P-value
Weight loss during lactation, kg	4.6	4.3	0.888
Backfat loss during lactation, mm	2.9	2.4	0.007
Pigs weaned/weaning	13.1	12.9	-
Daily litter gain, kg/day	3.12	3.07	0.501

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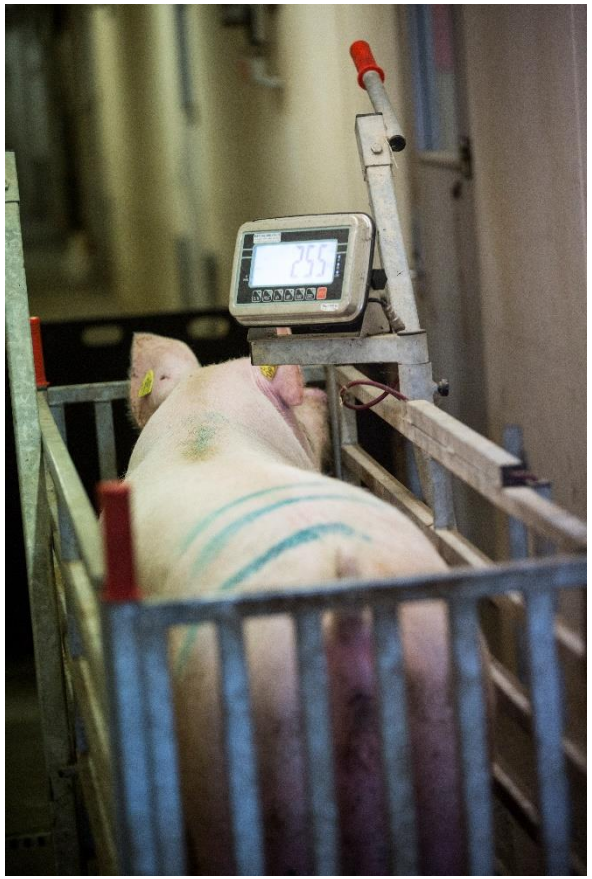
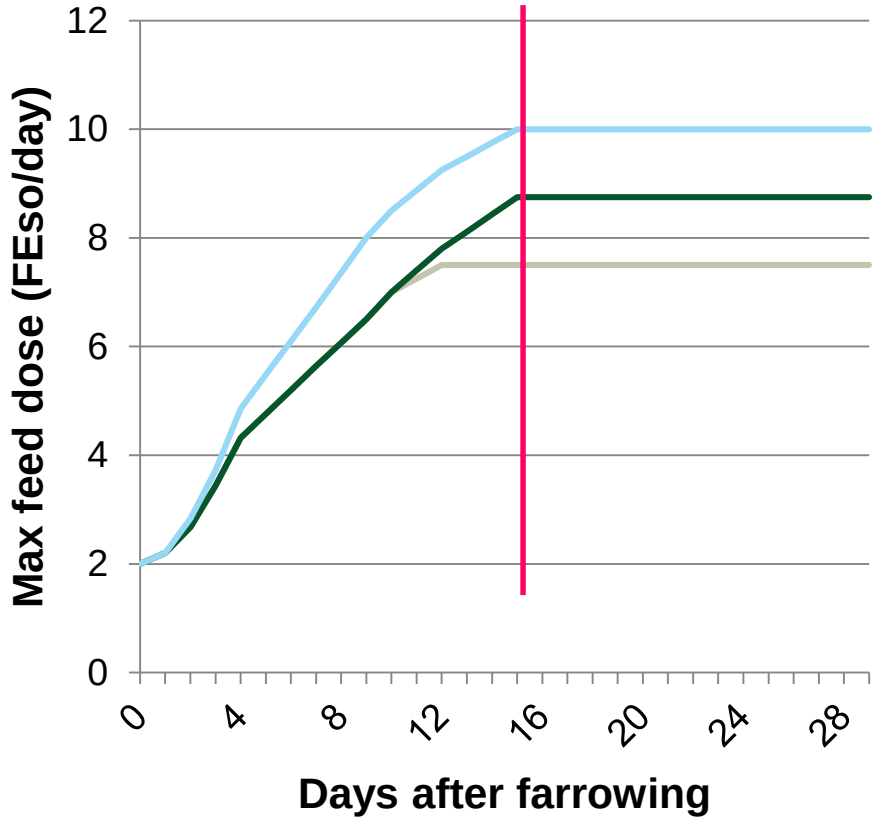
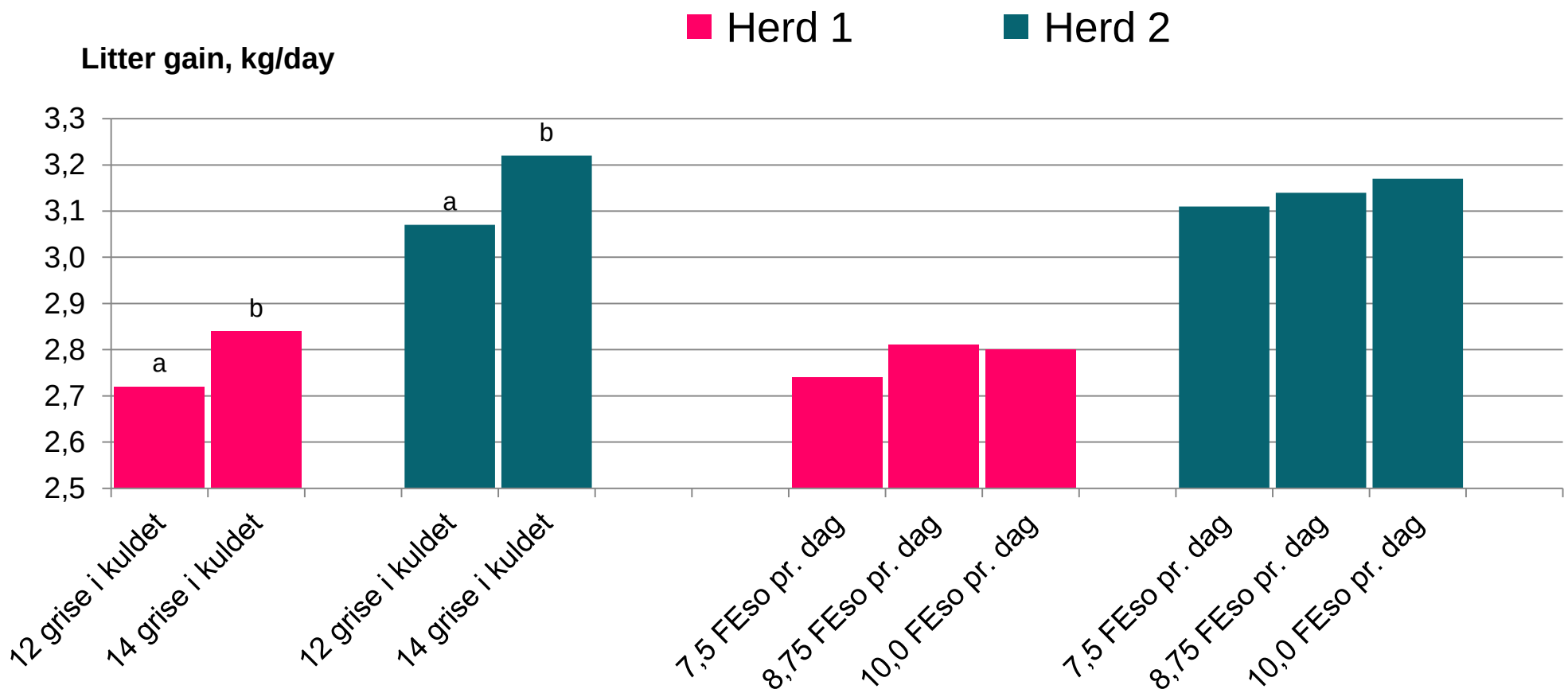
When do sows peak?
From day 15 depending on litter size (12 or 14 pigs)





No effect on litter gain

14 pigs vs 12 pigs = increased weight loss



Source: Bruun et al. (2017)

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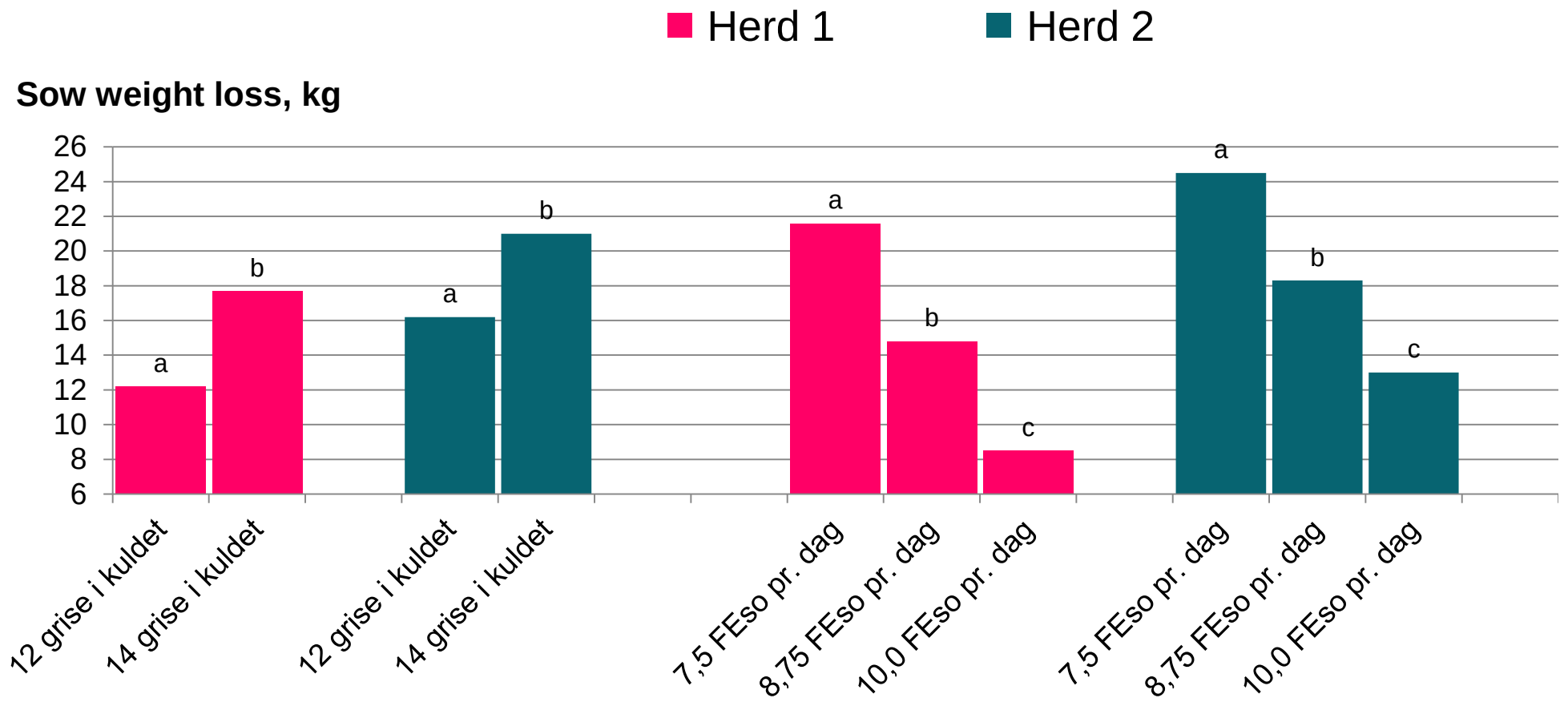
More feed = efficient management of loss of body condition

End feed dose should be individually adjusted



Source: Bruun et al. (2017)

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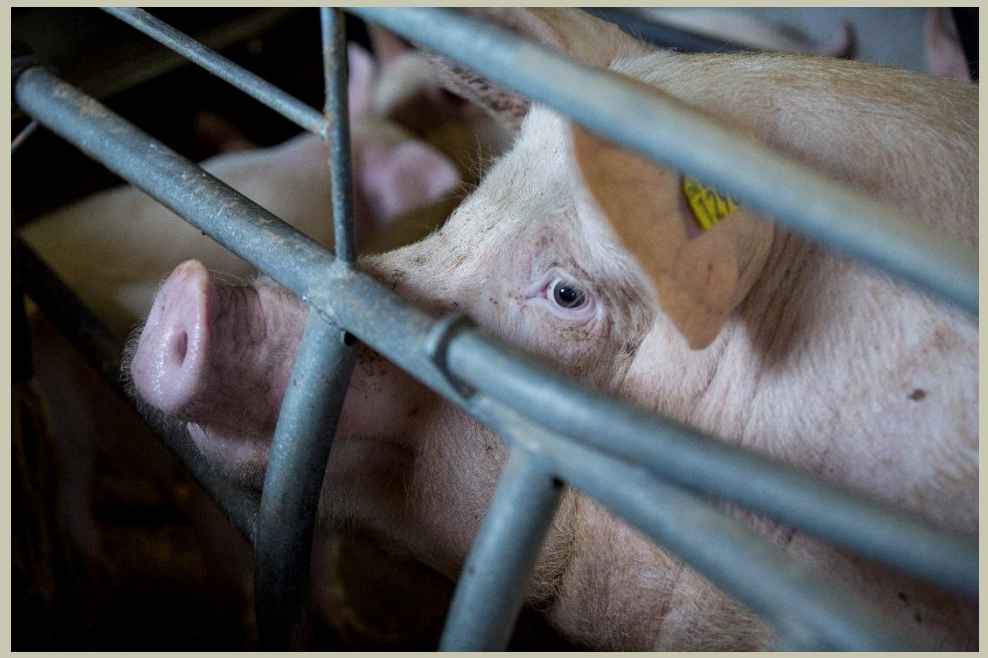
Adjustment of feed dose
Options for fine-tuning



- Significant loss of body condition among sows in your herd?
  - Attention to management of body condition
  - Consider progressive curve in early lactation
  - Aim: Roughly 6.5 FEso seven days after farrowing
  - No indication that more feed = heavier pigs
- Use end feed dose actively
  - Backfat loss ≤ 2-3 mm
  - Aim: Roughly 10 FEso for sows nursing 14 pigs
  - Aim: Roughly 9 FEso for sows nursing 12 pigs

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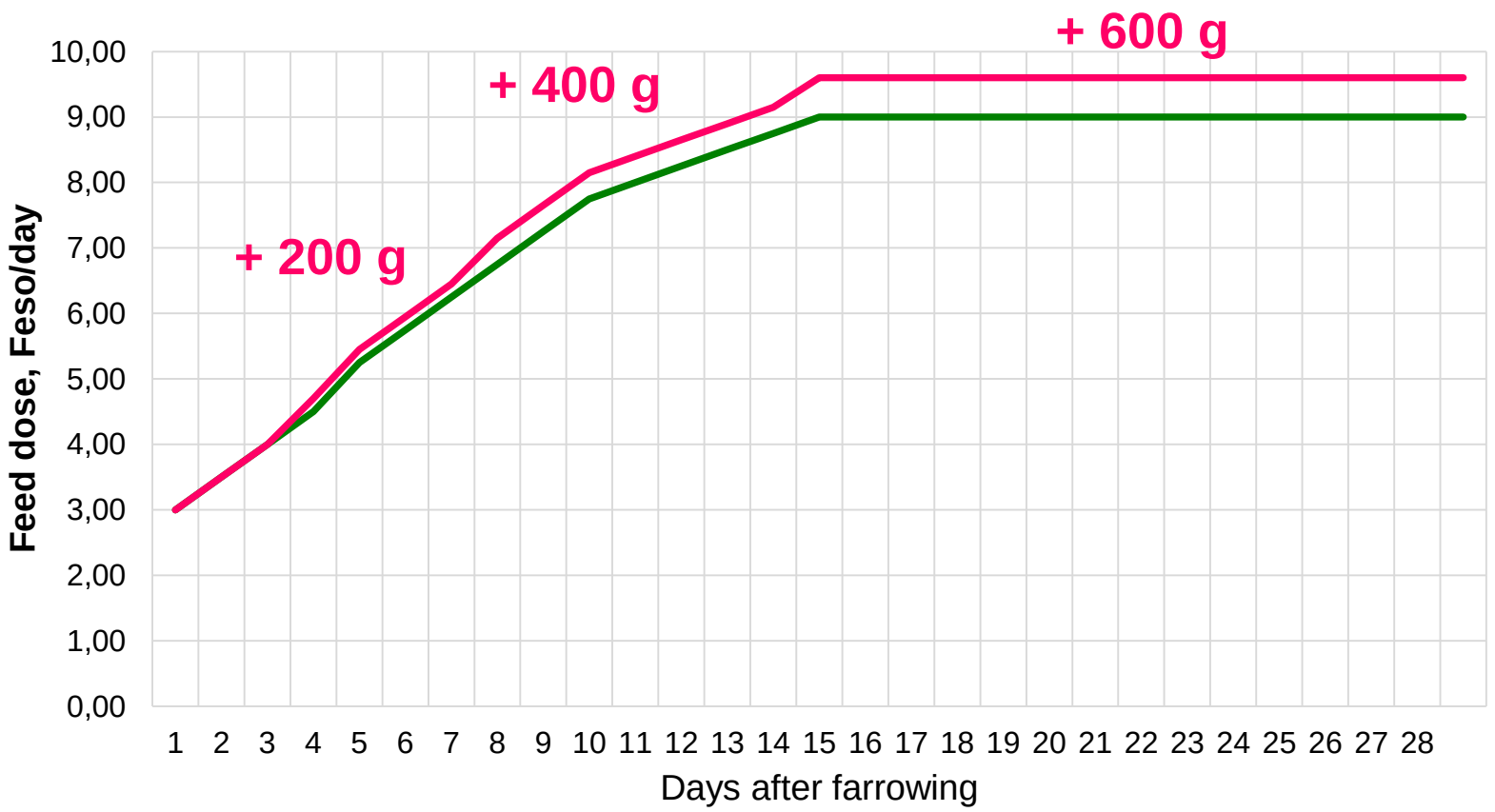
Boost with soybean meal to improve litter gain

Extra labour that must pay off



Feed curve (control)

Feed curve (additional soy)

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Results

No effect on litter gain, but did affect sow mobilisation

	Control	Additional soy
Lactation days/litter, days	24.1	24.0
Weight loss during lactation, kg	17.9	13.8
Backfat loss during lactation, mm	2.85	3.60
Pigs weaned/weaning, no. pigs	12.9	12.9
Daily litter gain, kg per day	2.68	2.73

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Guidelines – look after the sow, then the sow will look after the piglets

- Consistent management of body condition in the entire cycle
  - Never below maintenance: 2.3 FEso a day
  - 3.5 FEso daily up to farrowing
  - Body condition at farrowing: 15-18 mm/16-19 mm
  - Body condition at weaning: 12-15 mm
- Fat/large sows is a no go
  - Manage through slaughter
- Thin sows must regain correct body condition asap after weaning
  - Feed gestation diets to gestating sows
- Feed curve in lactation
  - The max.amount follow the number of piglets

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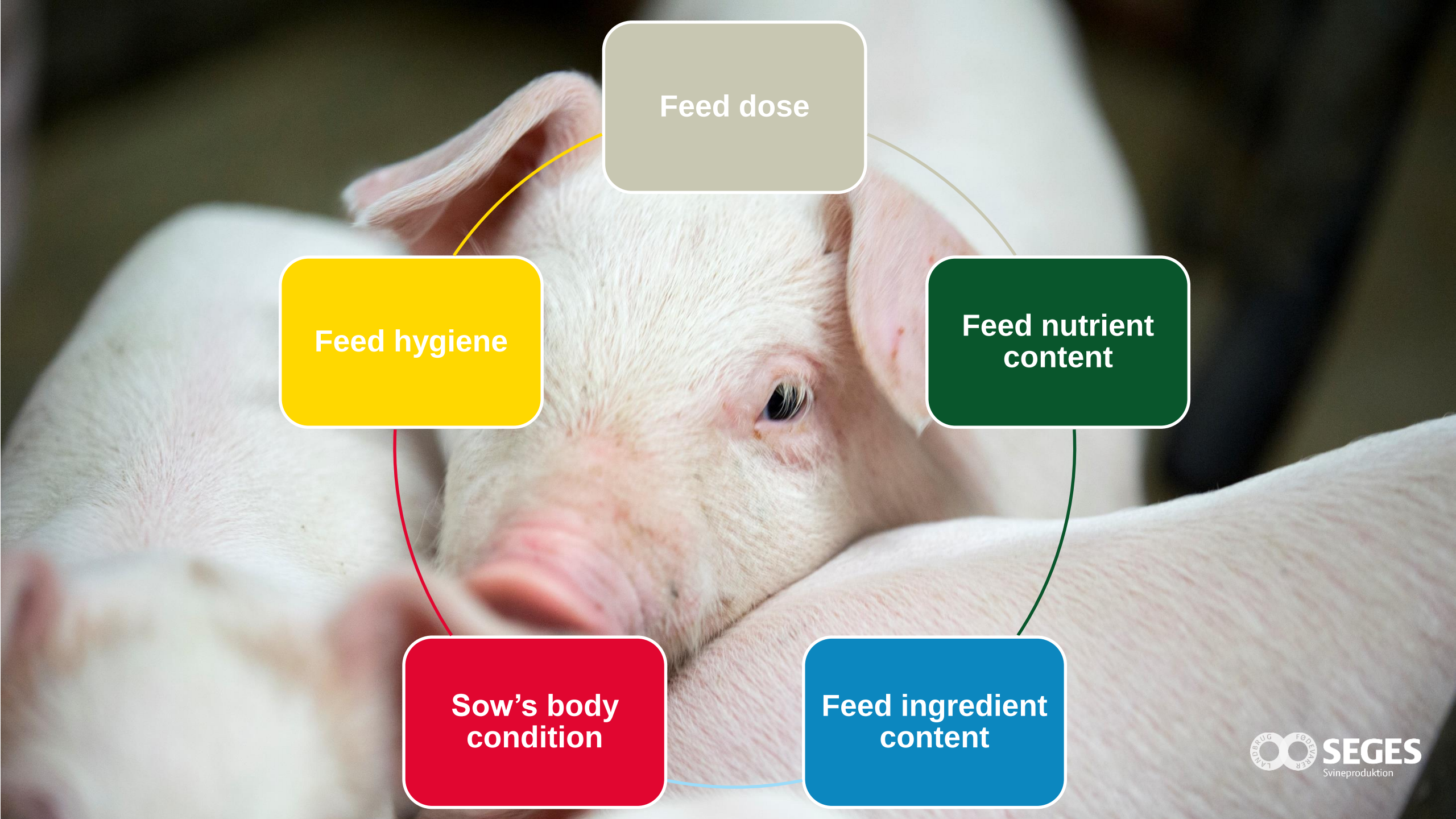

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