



# Get control of your gilts

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MCH, Herning

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**Danish Pig Levy Fund**

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INNOVATION

# Get control of your gilts

Agenda of this presentation ...

Arguments about minimizing variation at first service

Feeding strategies for modern genetics

Unflexible quarantine and gilt facilities

Simple and advanced instant monitoring of gilt performance

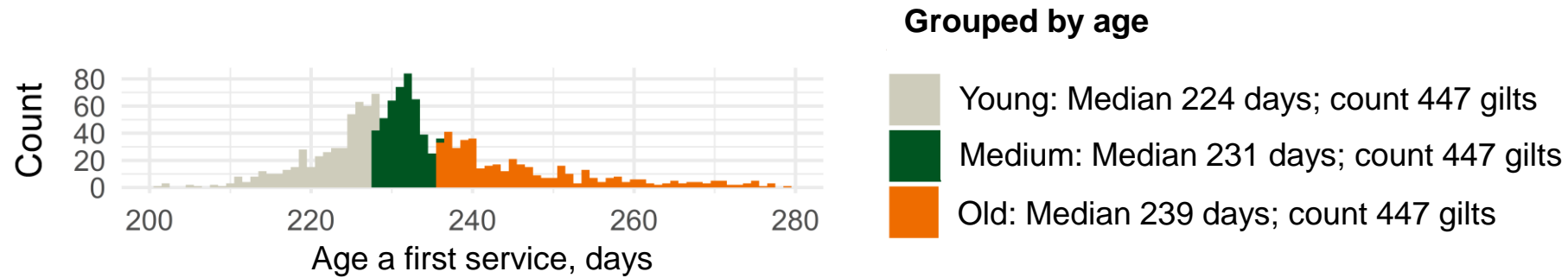
Take home messages



Photo: Lars Mikkelsen

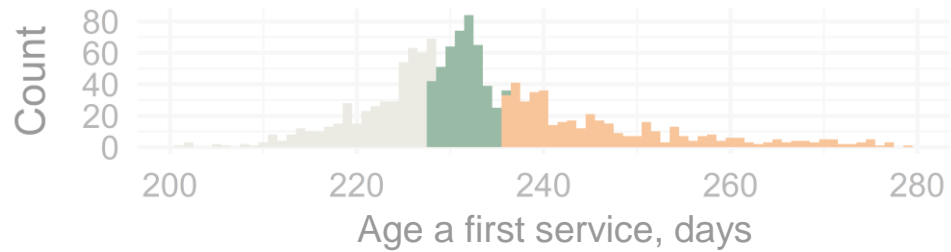
# What is the impact of weight, backfat and age at first service?

1341 gilts serviced from 2018-2020 has been followed for 8 parities



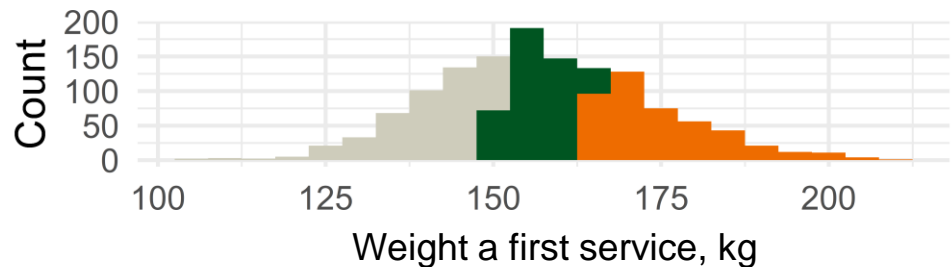
# What is the impact of weight, backfat and age at first service?

1341 gilts serviced from 2018-2020 has been followed for 8 parities



## Grouped by age

- Young: Median 224 days; count 447 gilts
- Medium: Median 231 days; count 447 gilts
- Old: Median 239 days; count 447 gilts

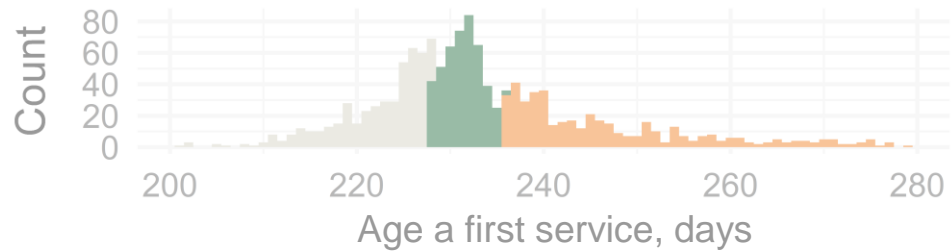


## Grouped by weight

- Light: Median 136 kg; count 447 gilts
- Medium: Median 154 kg; count 447 gilts
- Heavy: Median 168 kg; count 447 gilts

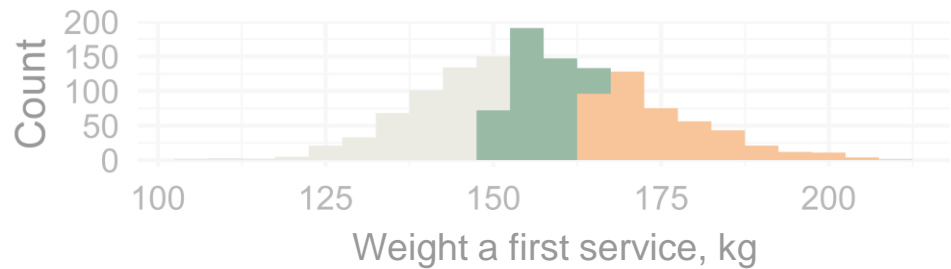
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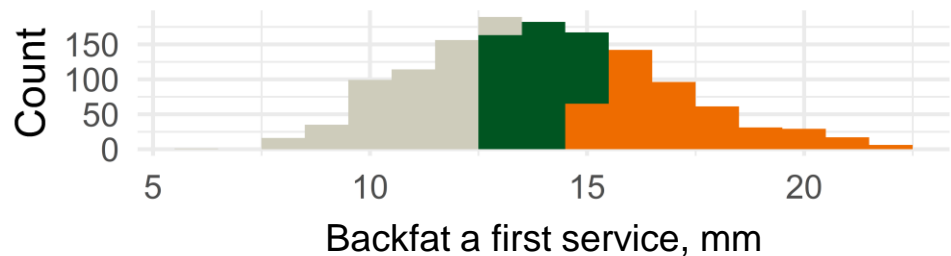
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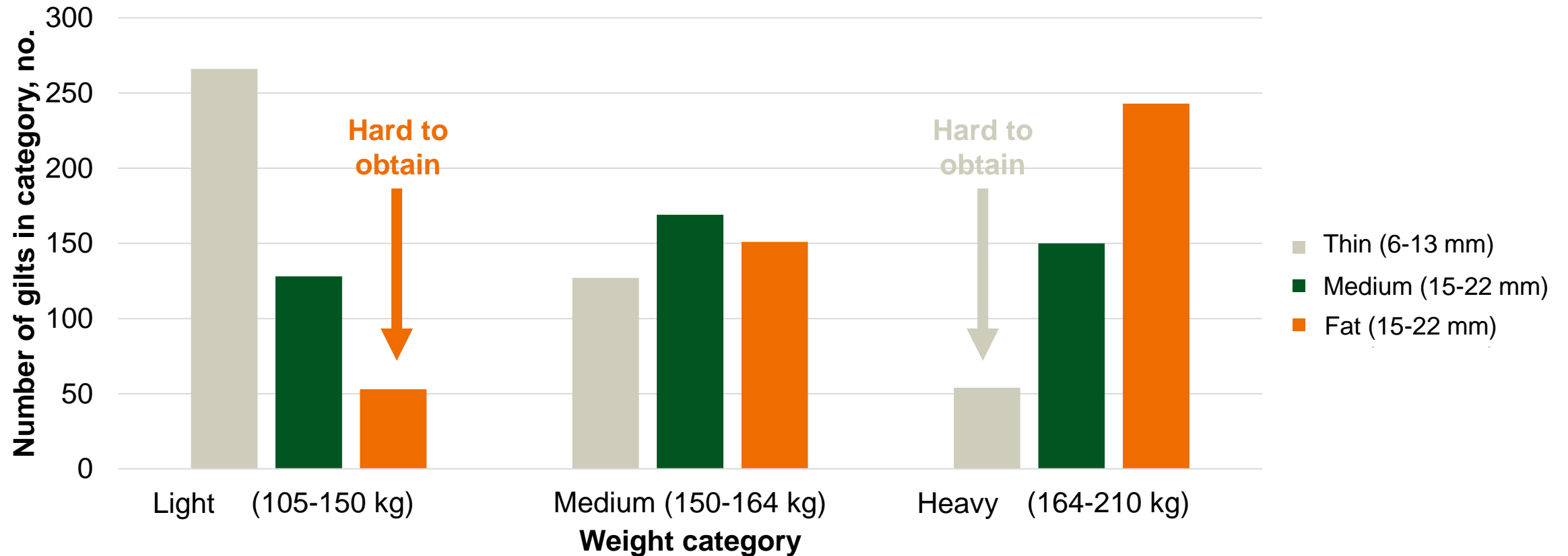


## Grouped by backfat

- Light: Median 12 mm; count 447 gilts
- Medium: Median 14 mm; count 447 gilts
- Heavy: Median 18 mm; count 447 gilts

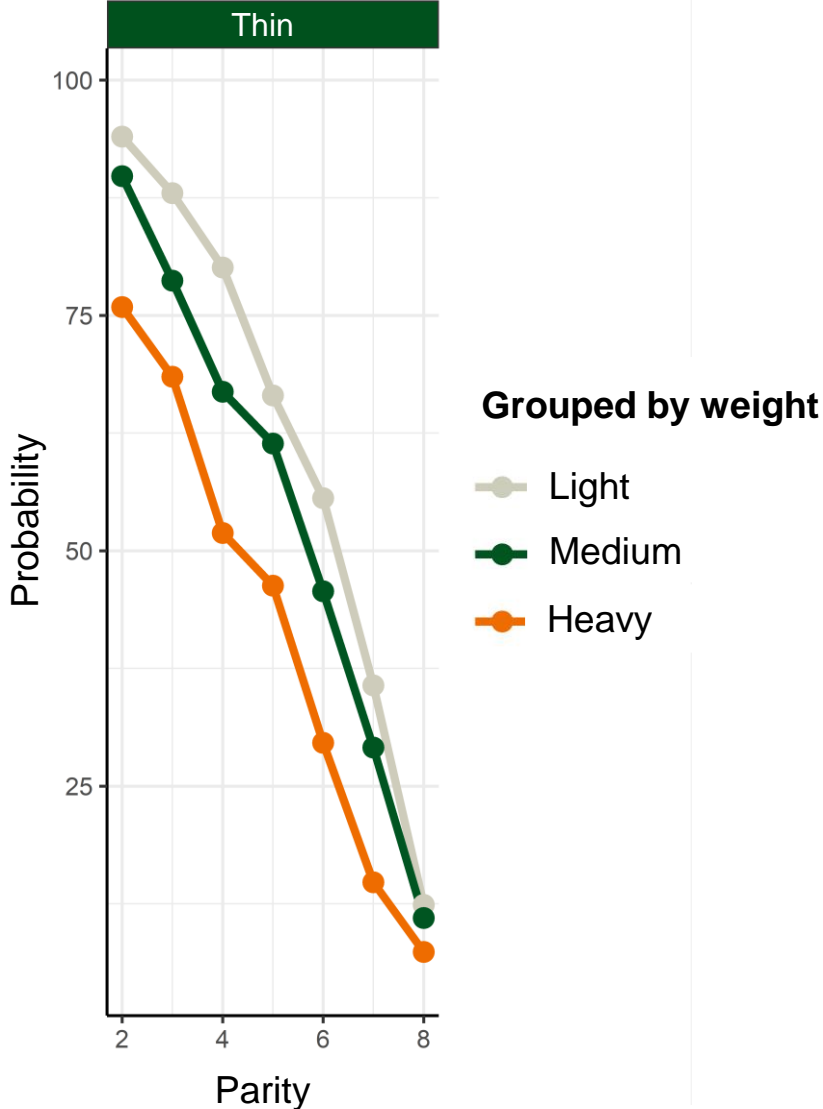
# Link between weight and backfat

Important to understand and easy to affect through feeding



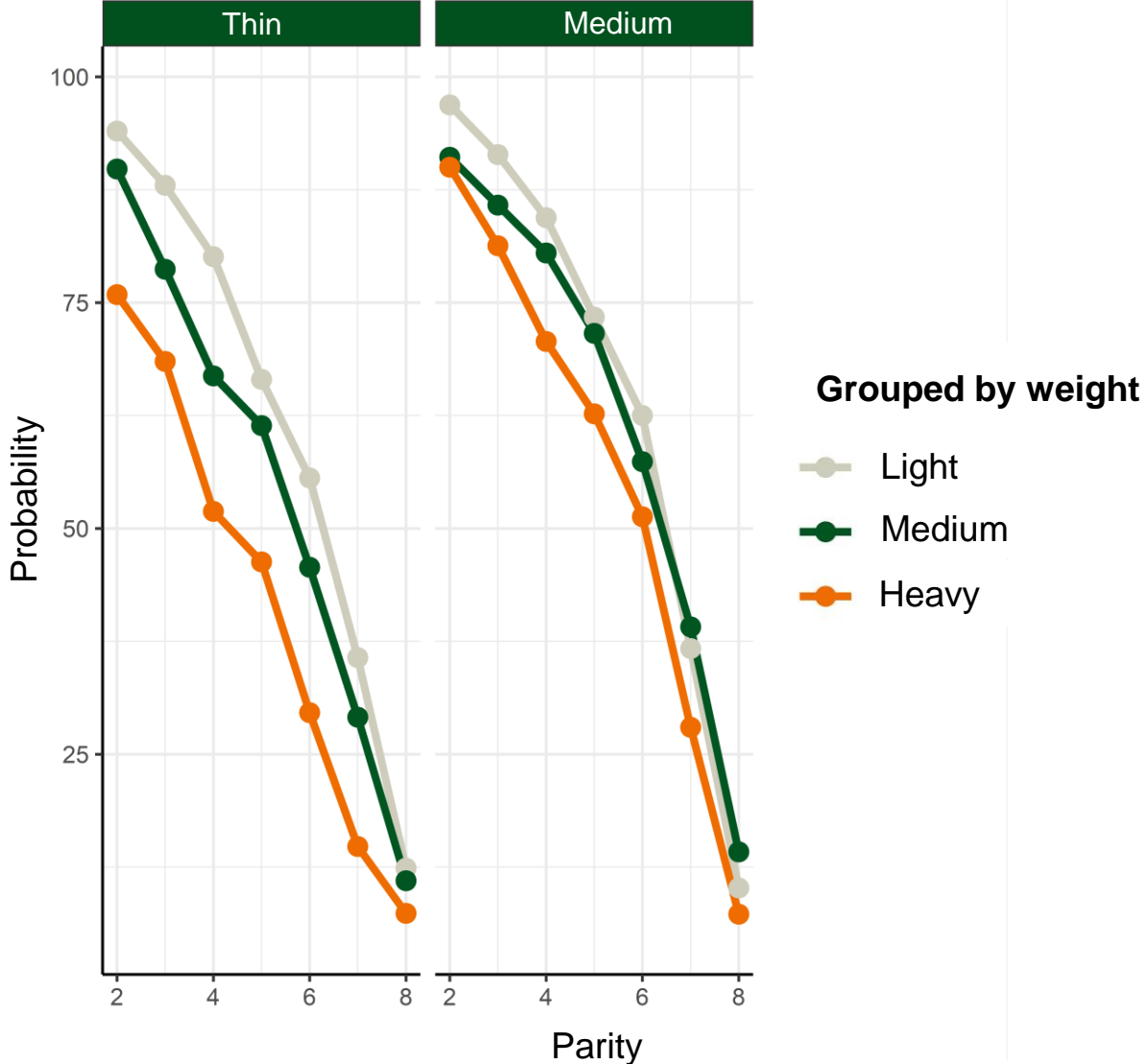
# Being heavy at first service is not an advantage

Probability to reach a certain parity before leaving the herd



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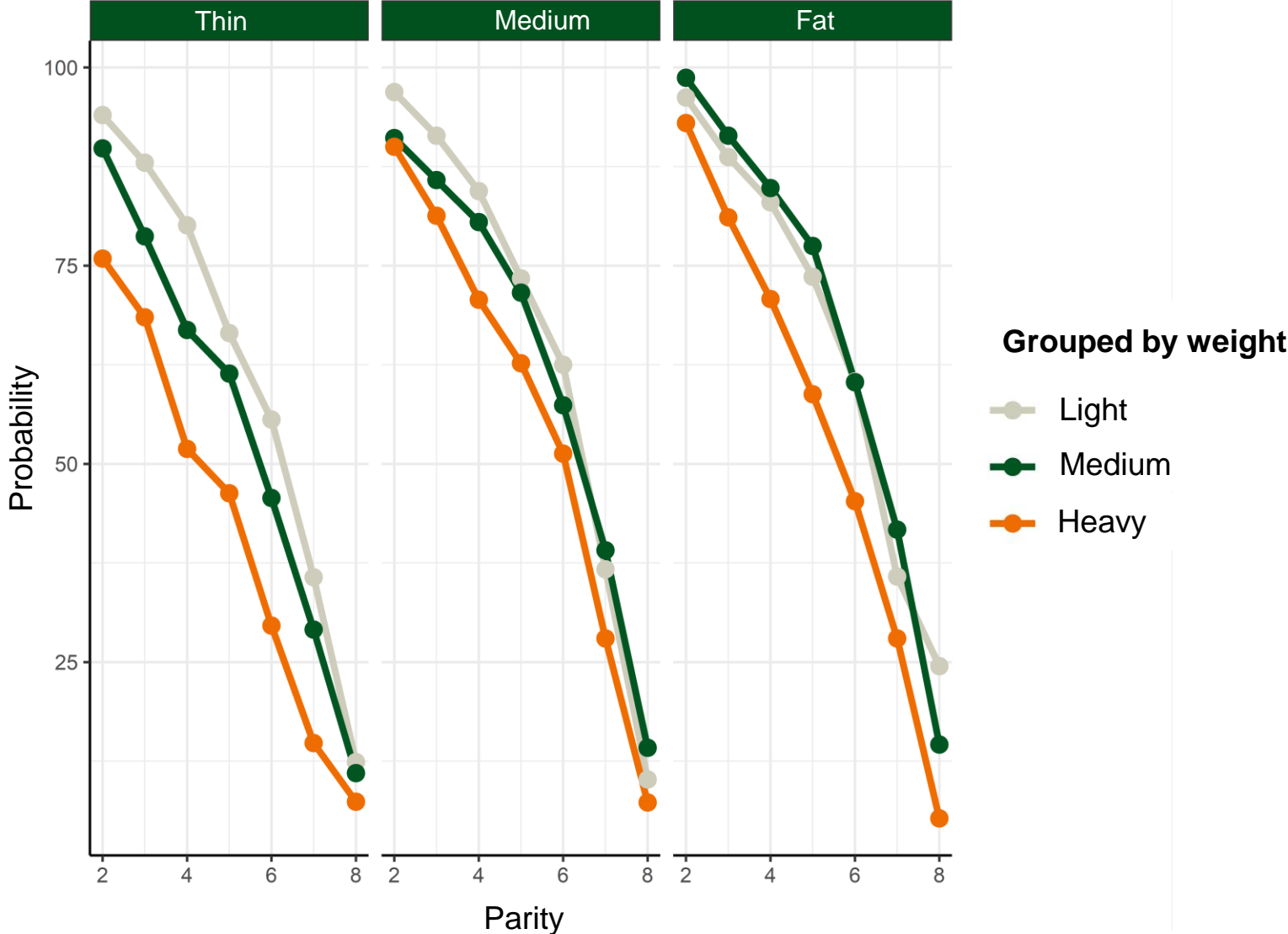
Probability to reach a certain parity before leaving the herd





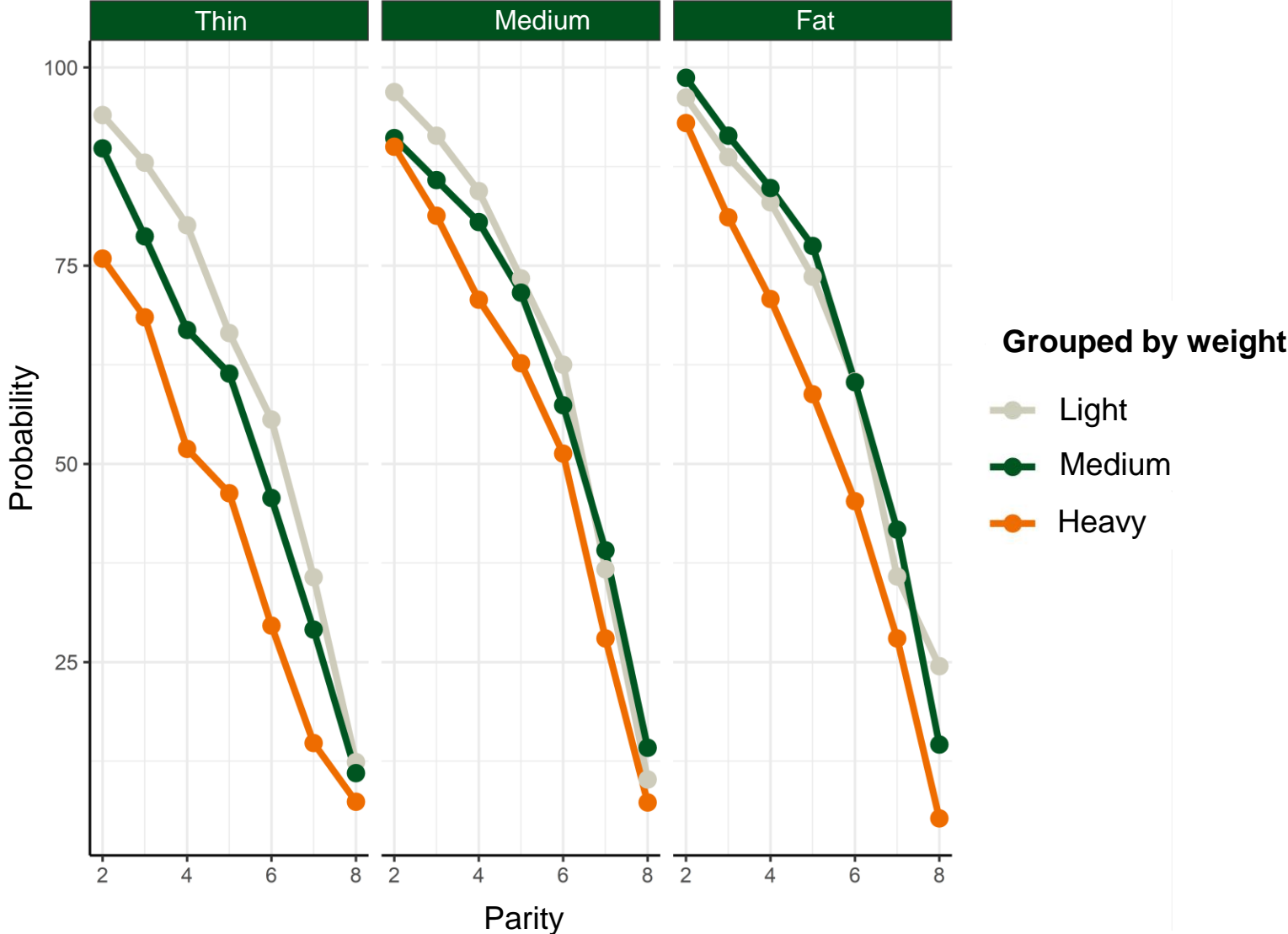
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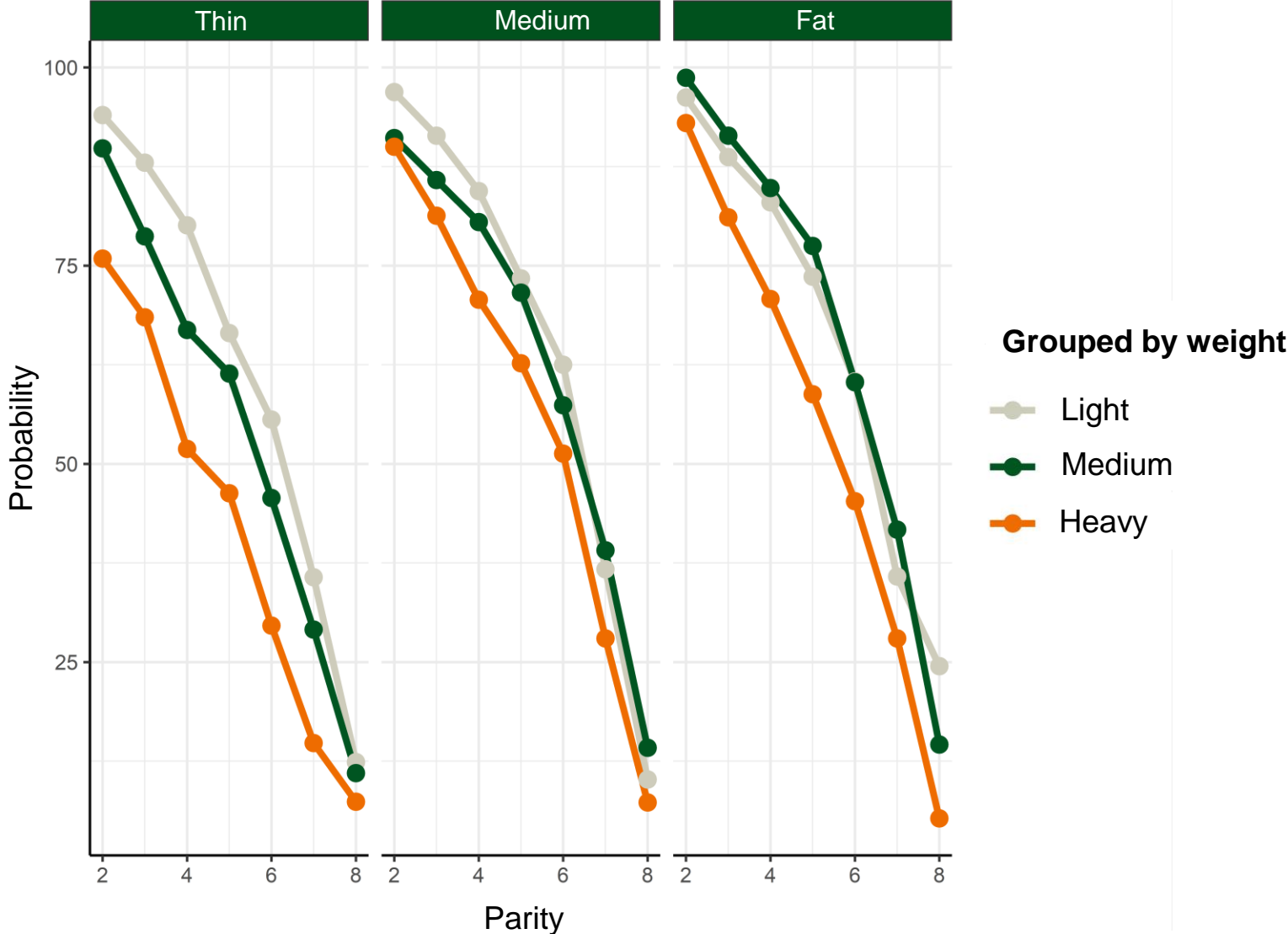
Probability to reach a certain parity before leaving the herd



... irrespective of backfat gilts being heavy at first service has a higher risk of being culled at a young parity ...

# Being heavy at first service is not an advantage

Probability to reach a certain parity before leaving the herd

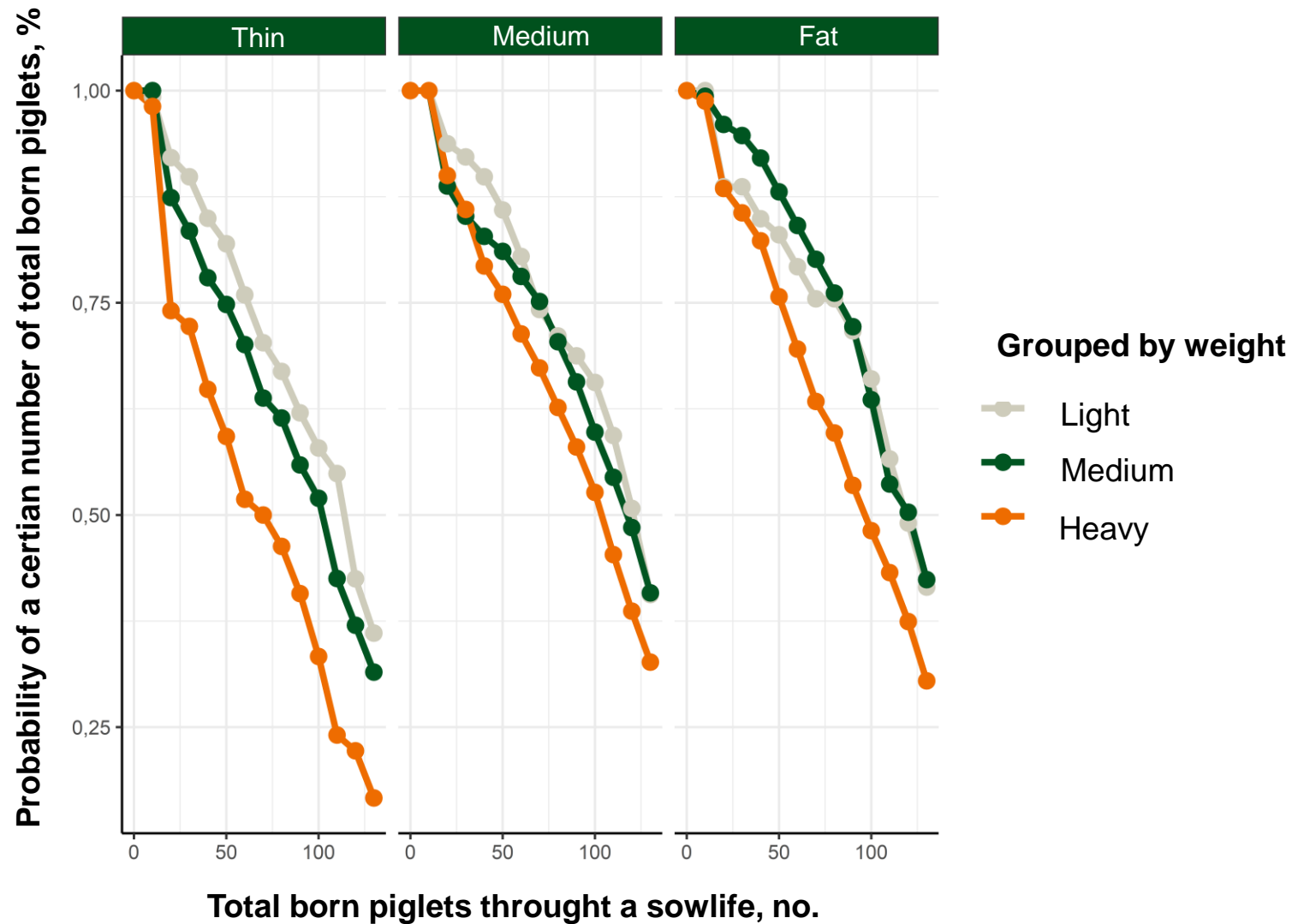


... Irrespective of weight (almost) gilts being lean at first service has a higher risk of being culled at a young parity ...

**Lifetime performance is the way of paying for the gilt**

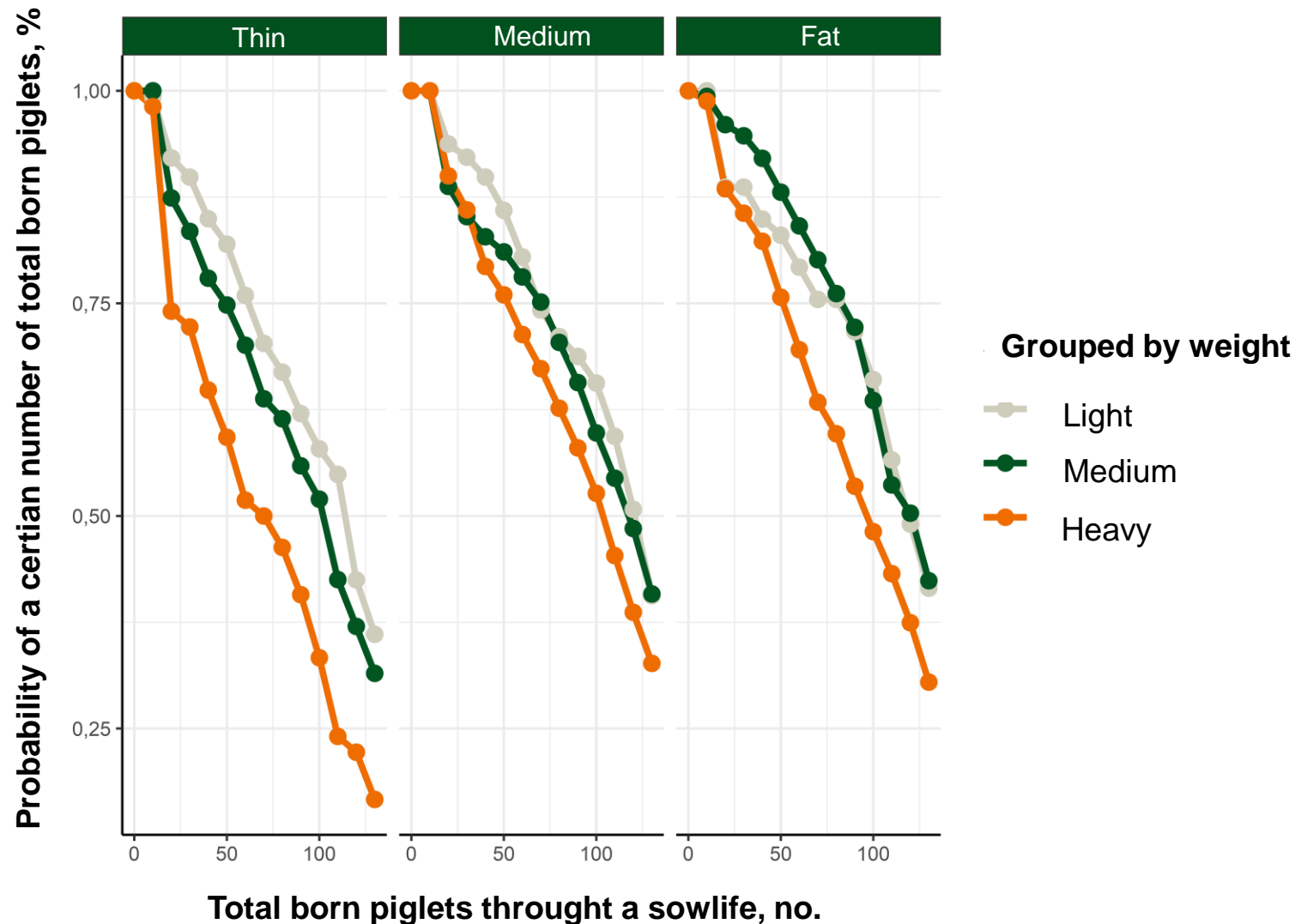
# Lifetime performance is the way of paying for the gilt

A high weight is decreasing the number of pigs born throughout life



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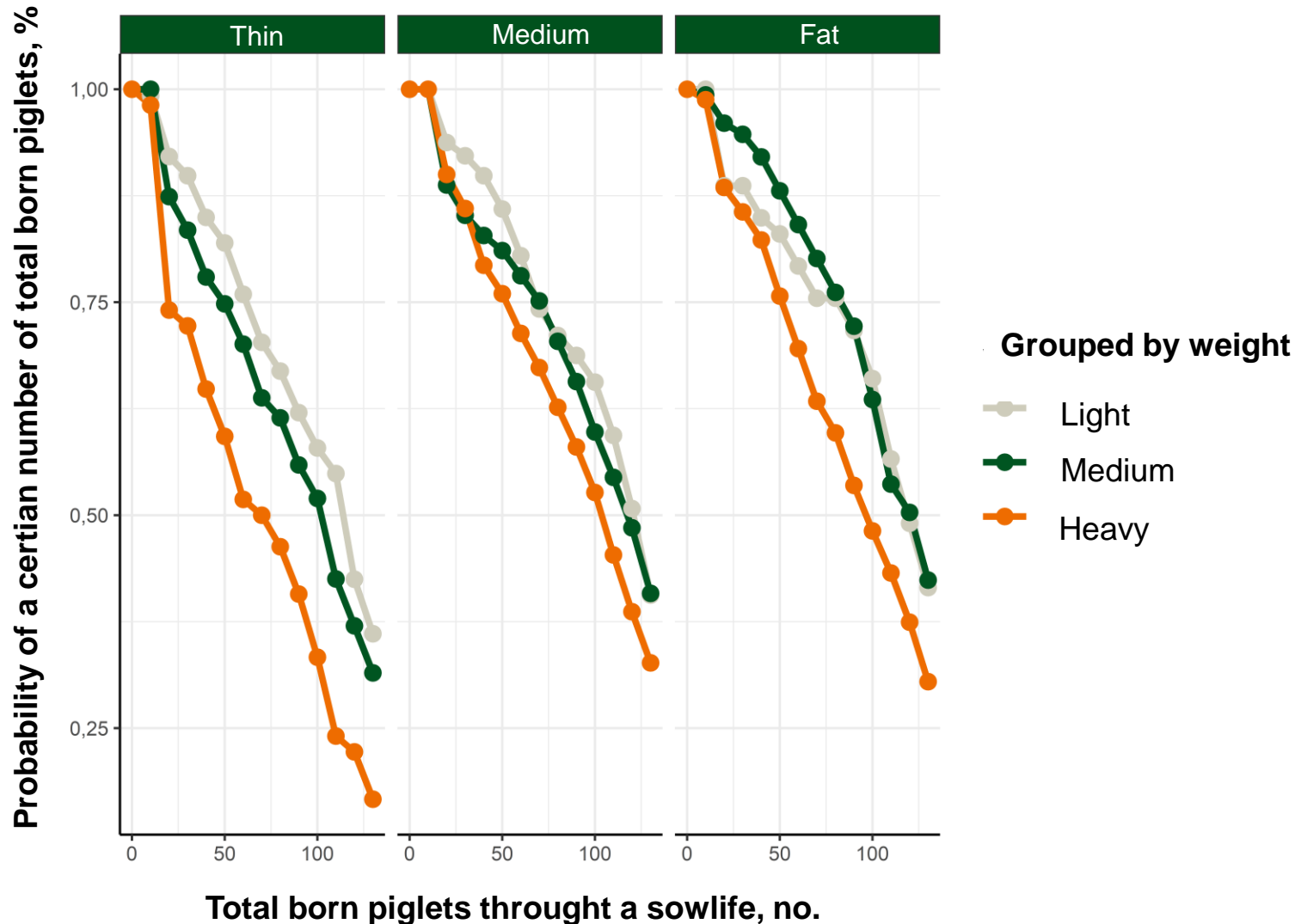
A high weight is decreasing the number of pigs born throughout life



... light and medium gilts gives birth to on average 110 and 106 piglets during life whereas heavy gilts reaches only 89 piglets born before culling ...

# Lifetime performance is the way of paying for the gilt

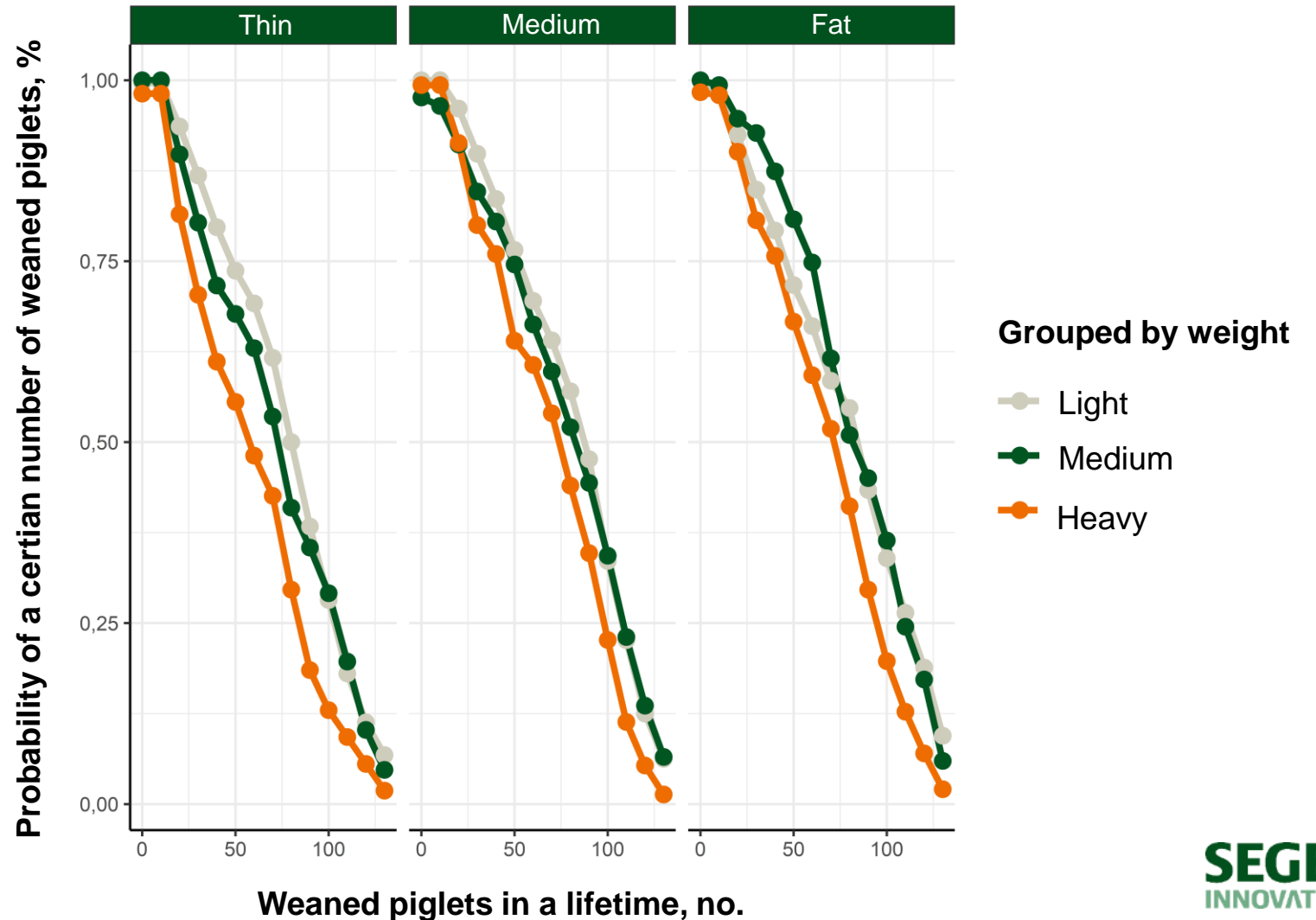
A high weight is decreasing the number of pigs born throughout life



... gilts that has medium or high backfat gives birth to 106 and 107 piglets during life - thin gilt only gives birth to 92 piglets before being culled ...

# Lifetime performance is the way of paying for the gilt

A high weight negatively affect number of weaned piglets in a lifetime

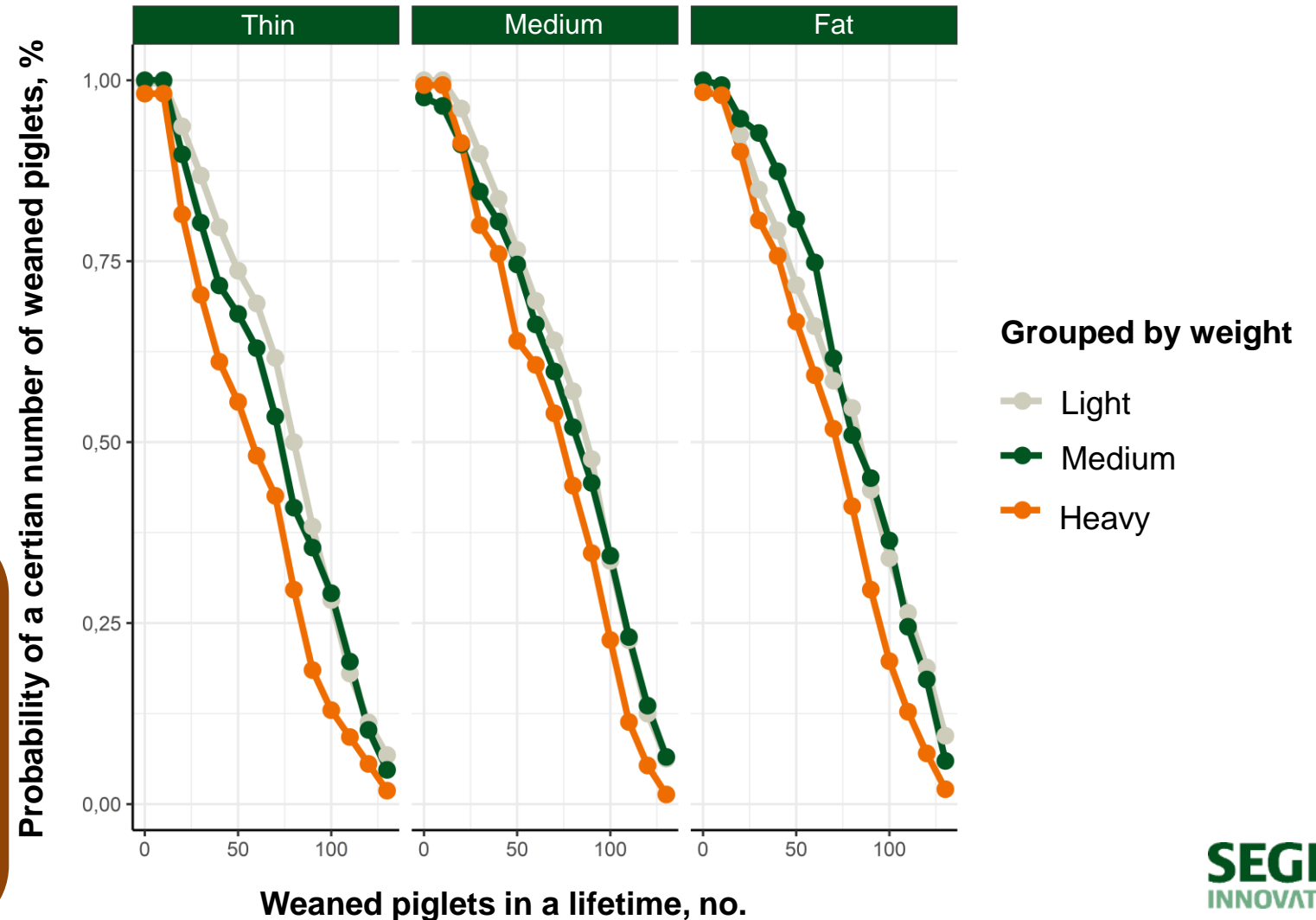




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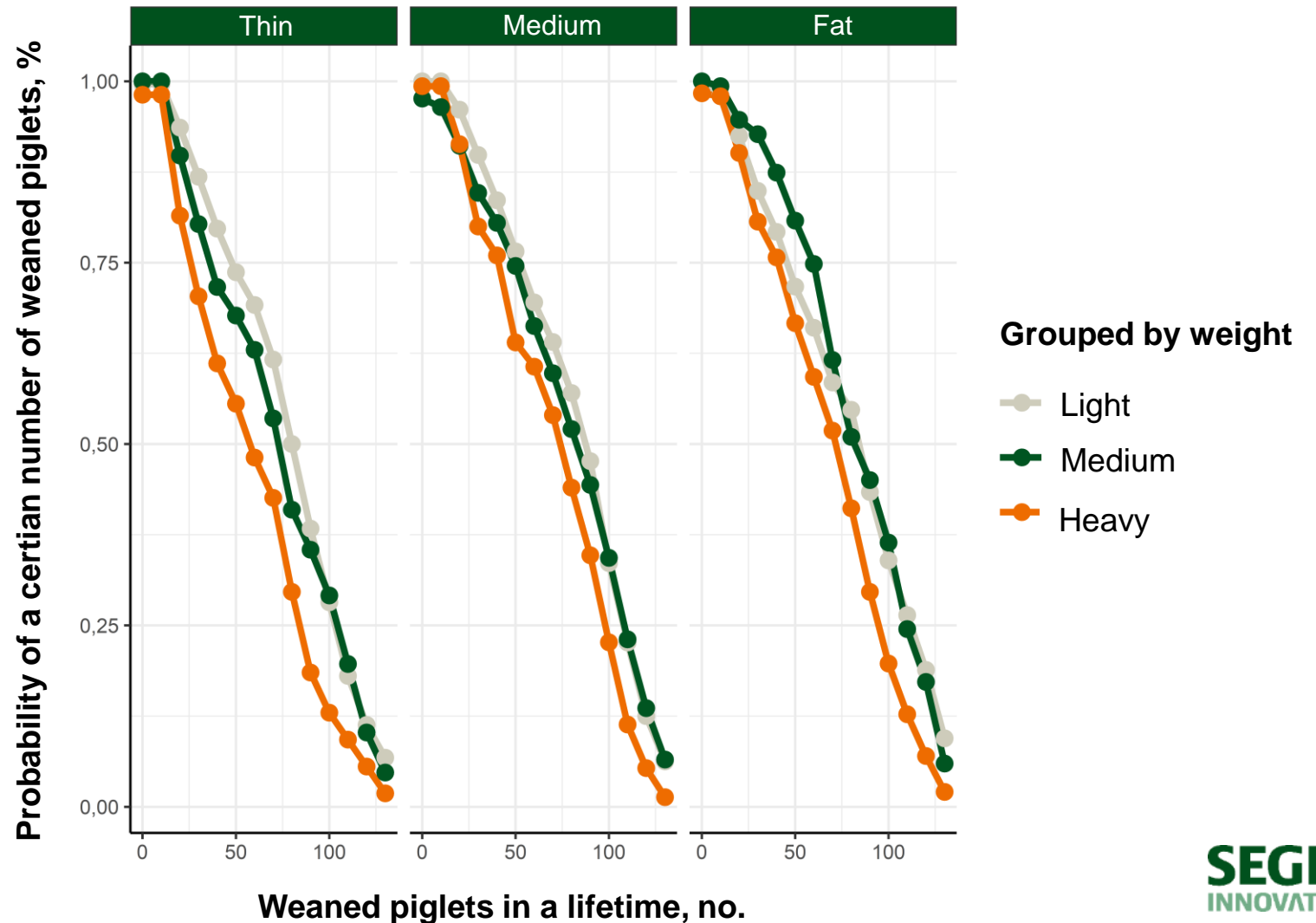
... gilts that are light or medium at first service wean 80 and 78 in a lifetime – a heavy sow only wean 66 piglets before being culled ...



# Livstidsydelsen er poltens tilbagebetaling

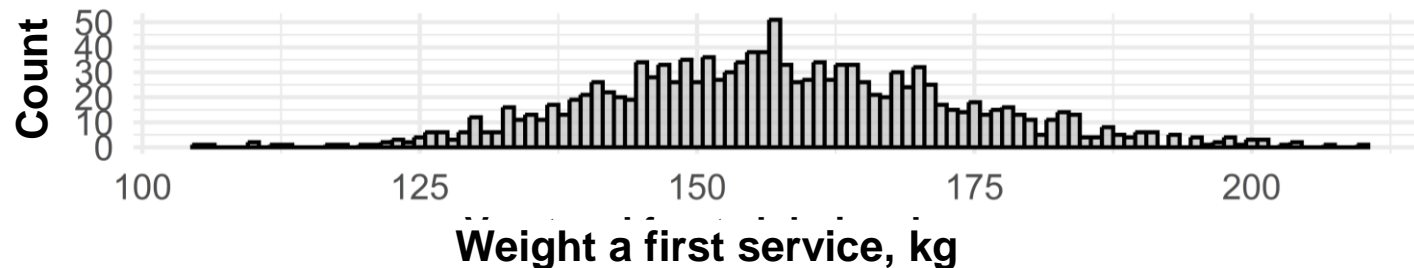
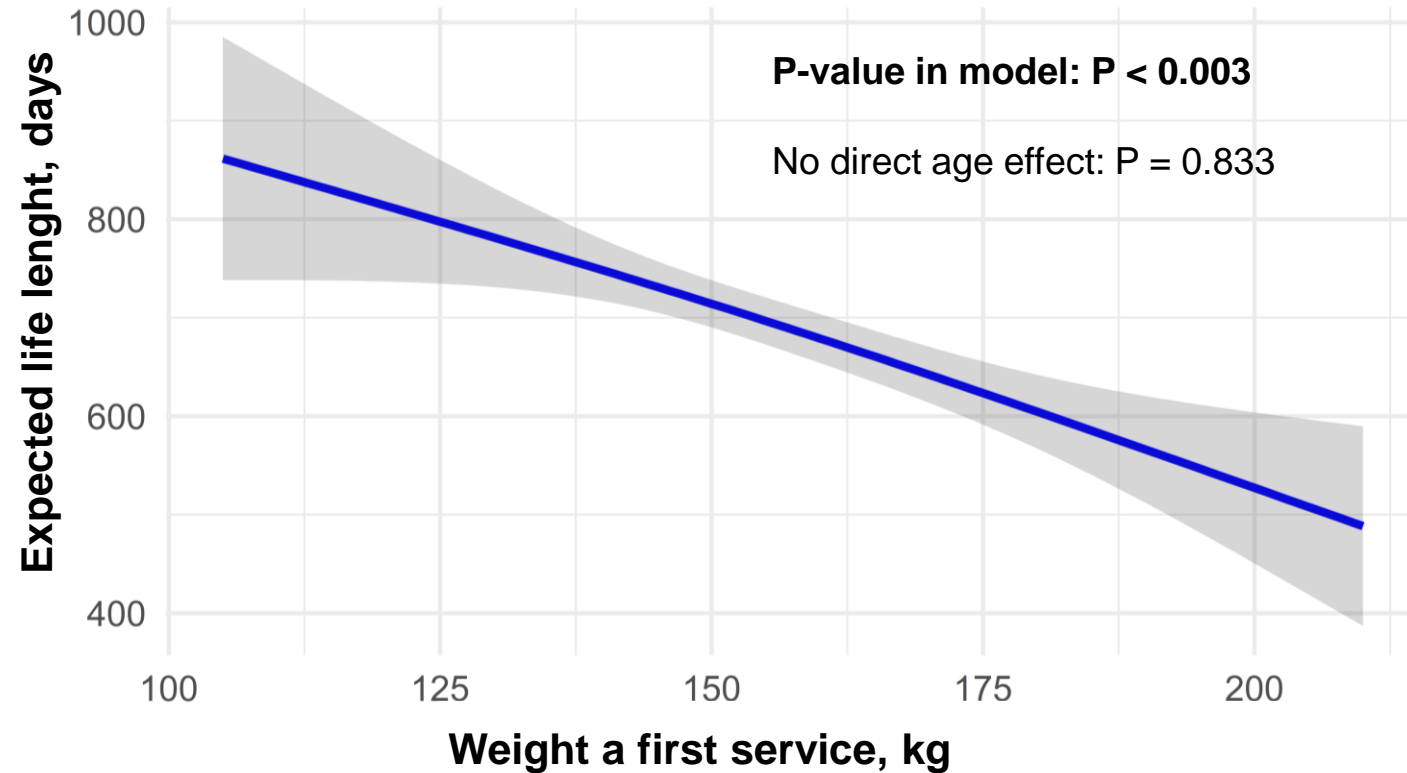
A high weight negatively affect number of weaned piglets in a lifetime

... gilts that are medium or fat at first service wean on average 77 piglets in a lifetime – a thin gilt only wean 69 piglets before being culled ...



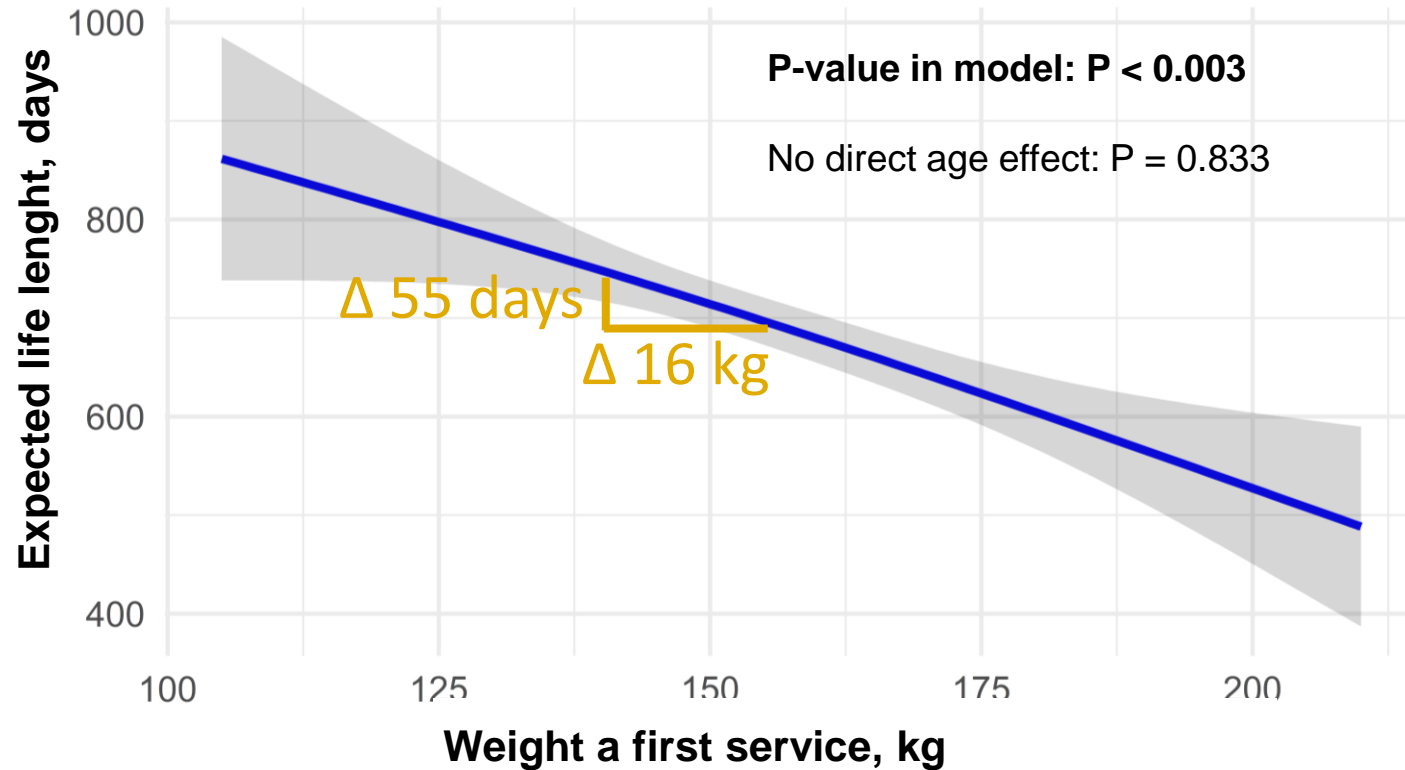
# Length of the sow life is dependent on weight at first service

## A very strong correlation

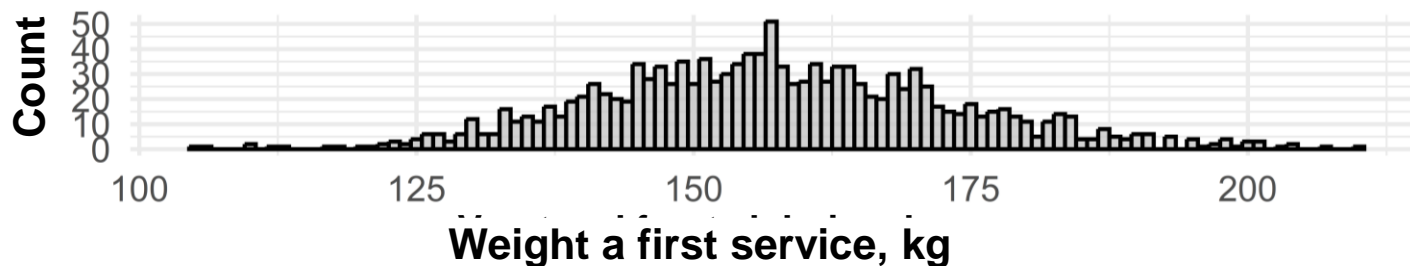


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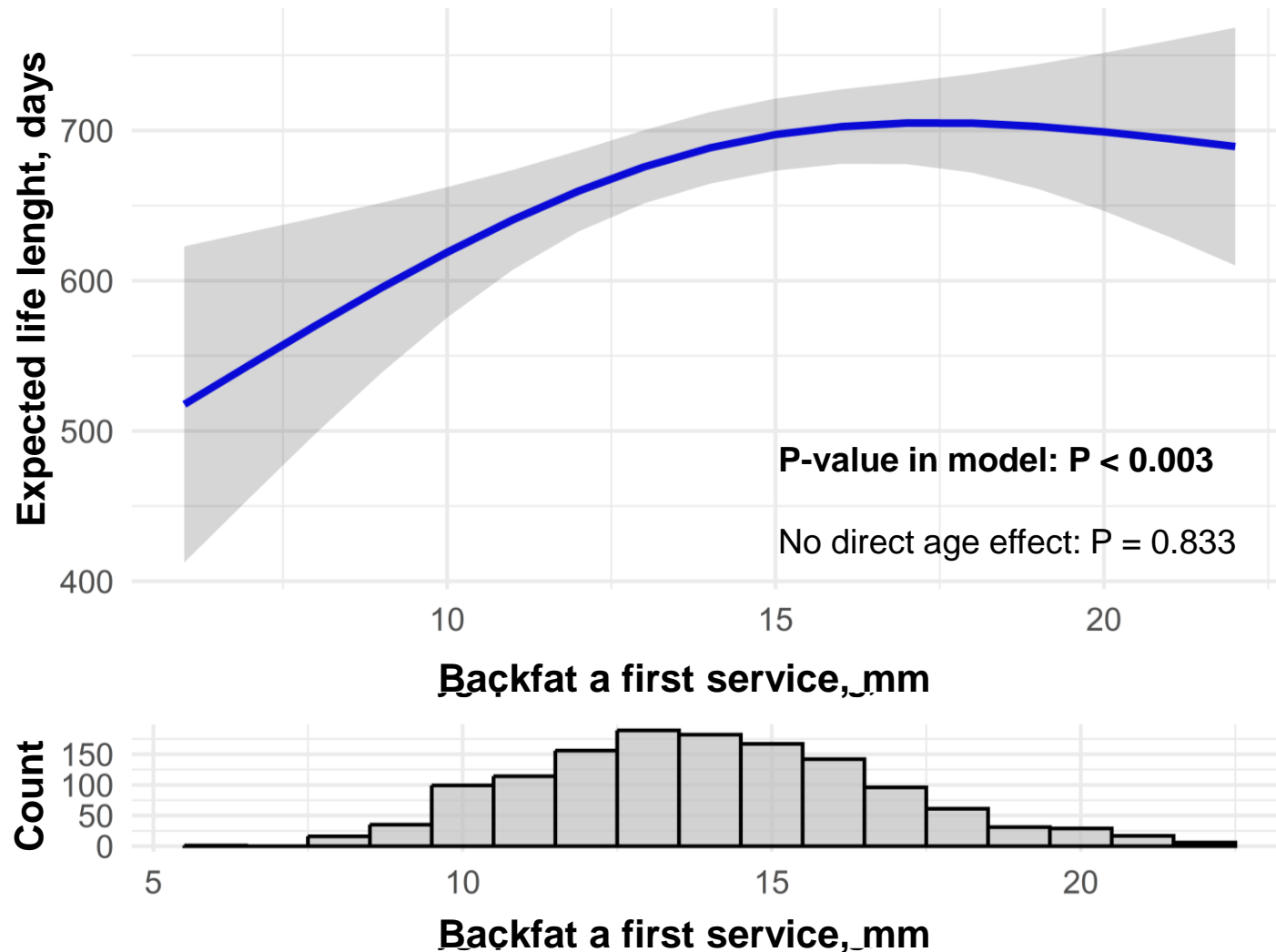


... a weight difference of 16 kg affects life length with +/- 8% equal to +/- 0.35 parity ...



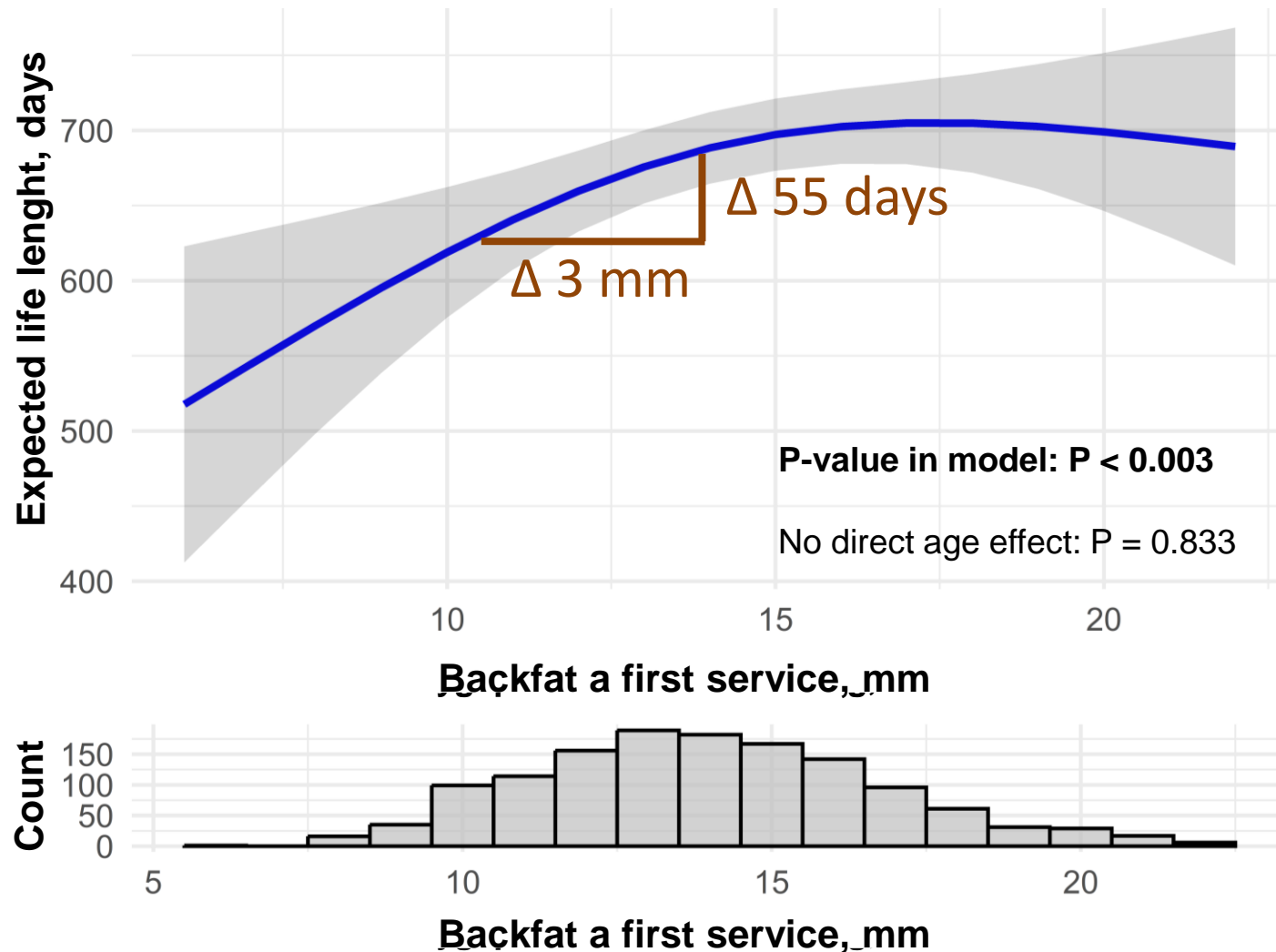
# Length of the sow life is also dependent on backfat at first service

## Low backfat is critical



# Length of the sow life is also dependent on backfat at first service

## Low backfat is critical



... a reduction in backfat from 14 to 11 mm reduces life length 6.8% or about 0.30 parity ...

# Get control of your gilts

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Simple and advanced instant monitoring of gilt performance

Take home messages

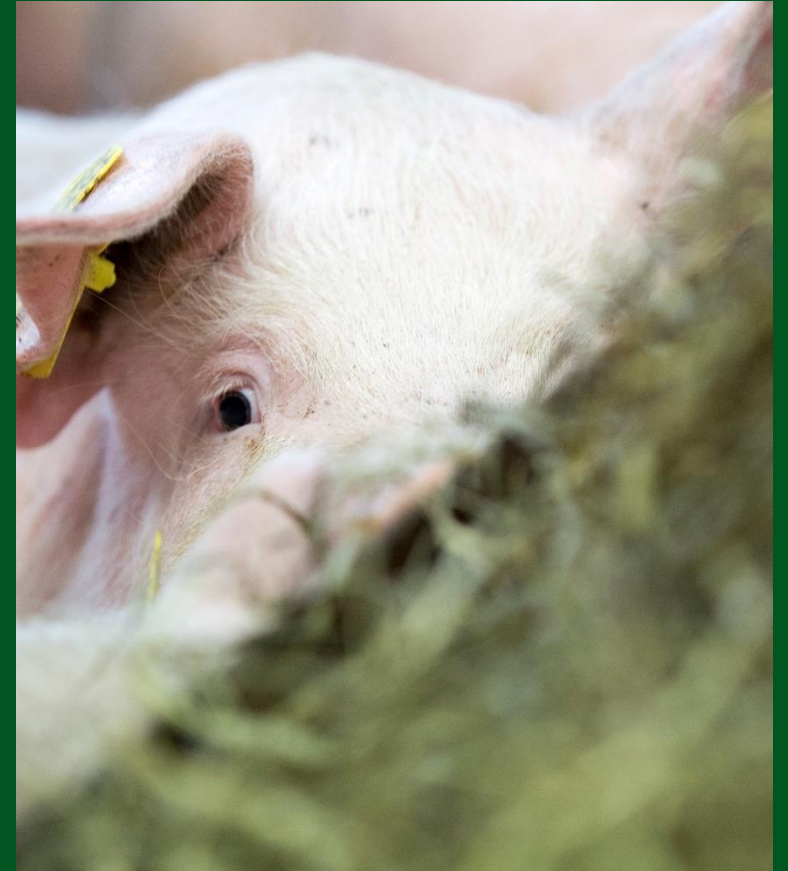
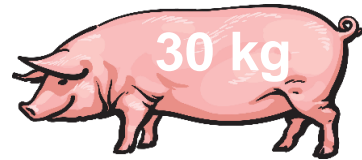


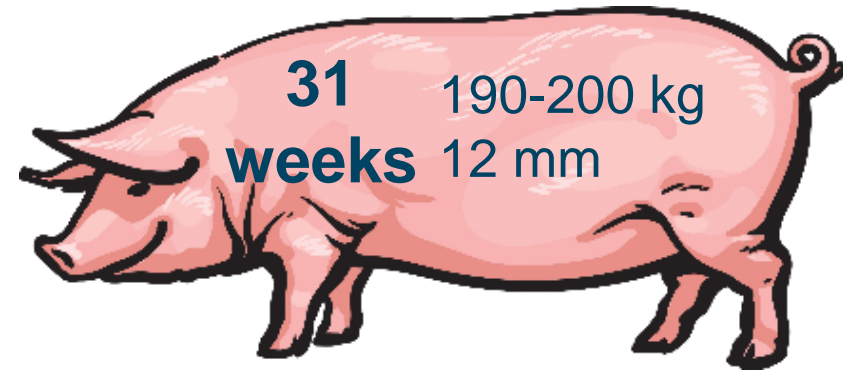
Photo: Rasmus Bendix, Bendix Production

# New feeding standards 2024 and goodbye to one diet strategy

## Behaviour and genetics defines the standard



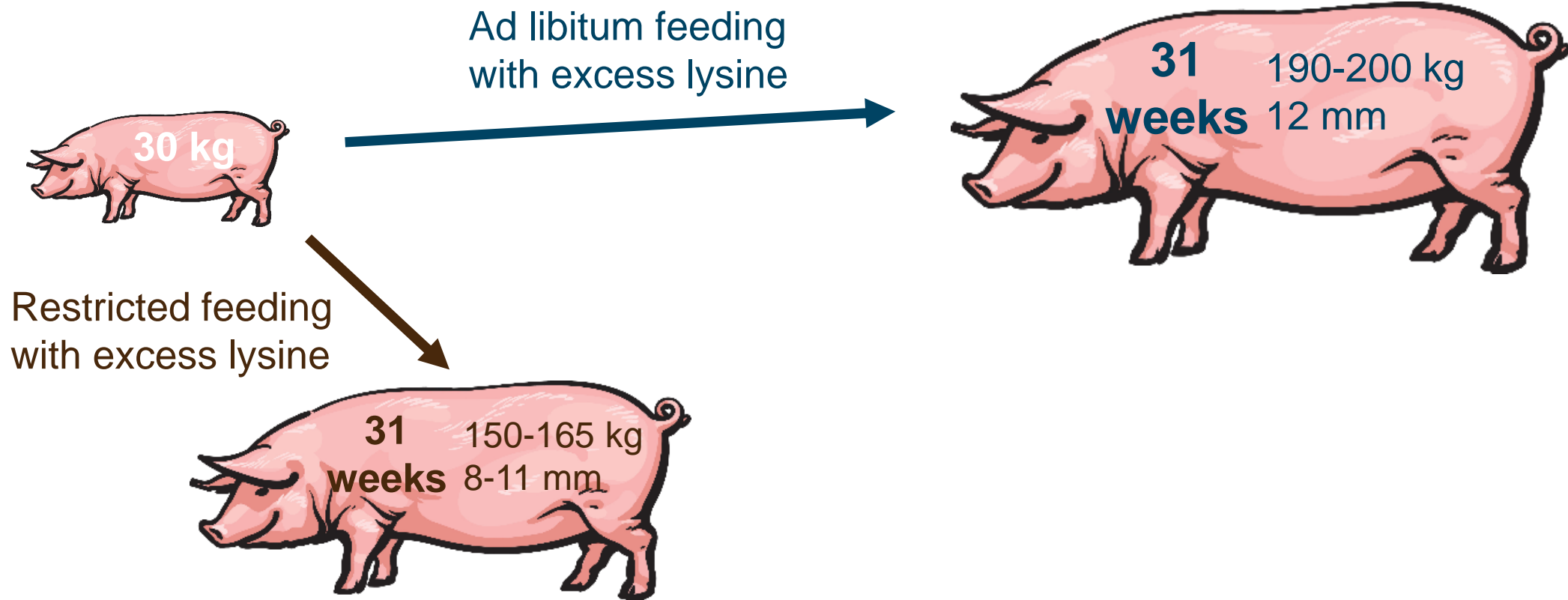
Ad libitum feeding  
with excess lysine





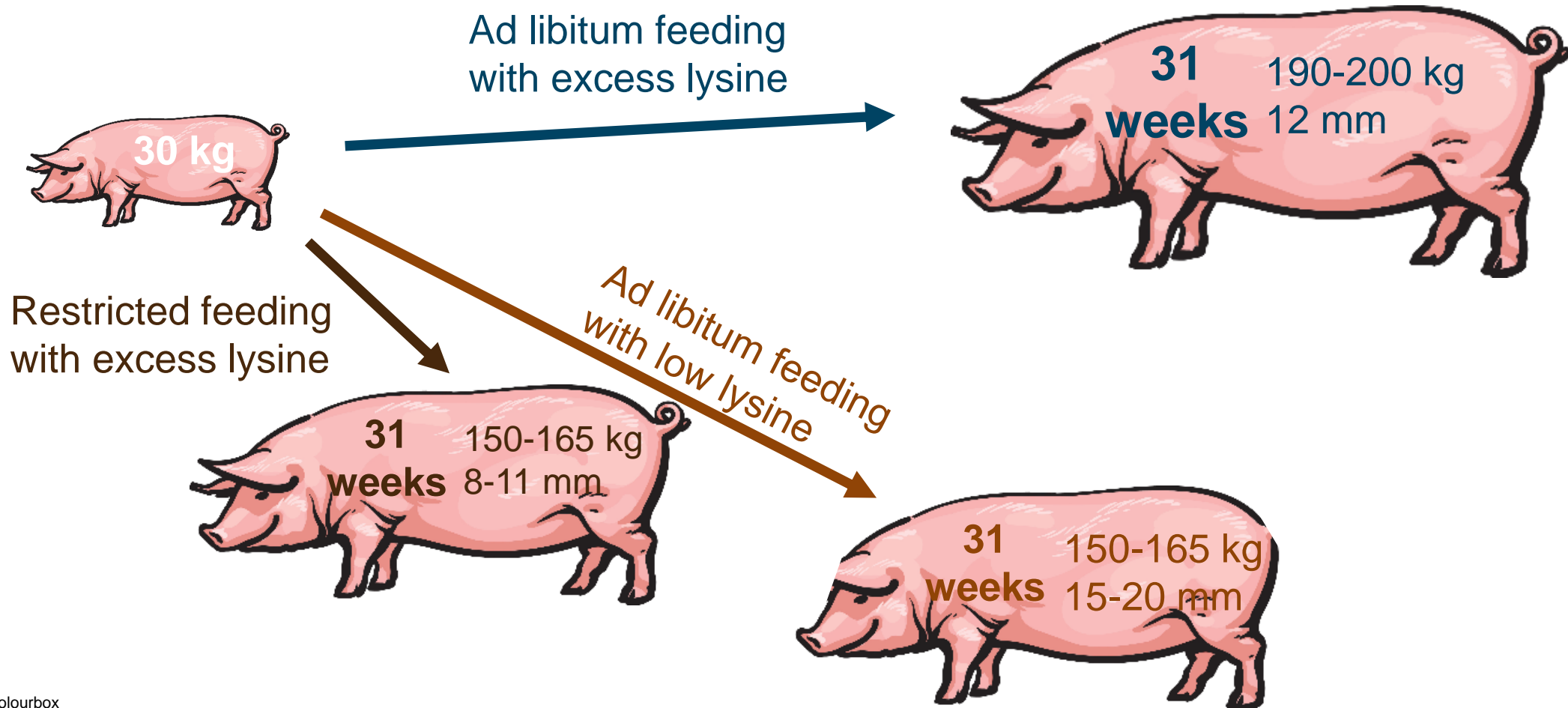
# New feeding standards 2024 and goodbye to one diet strategy

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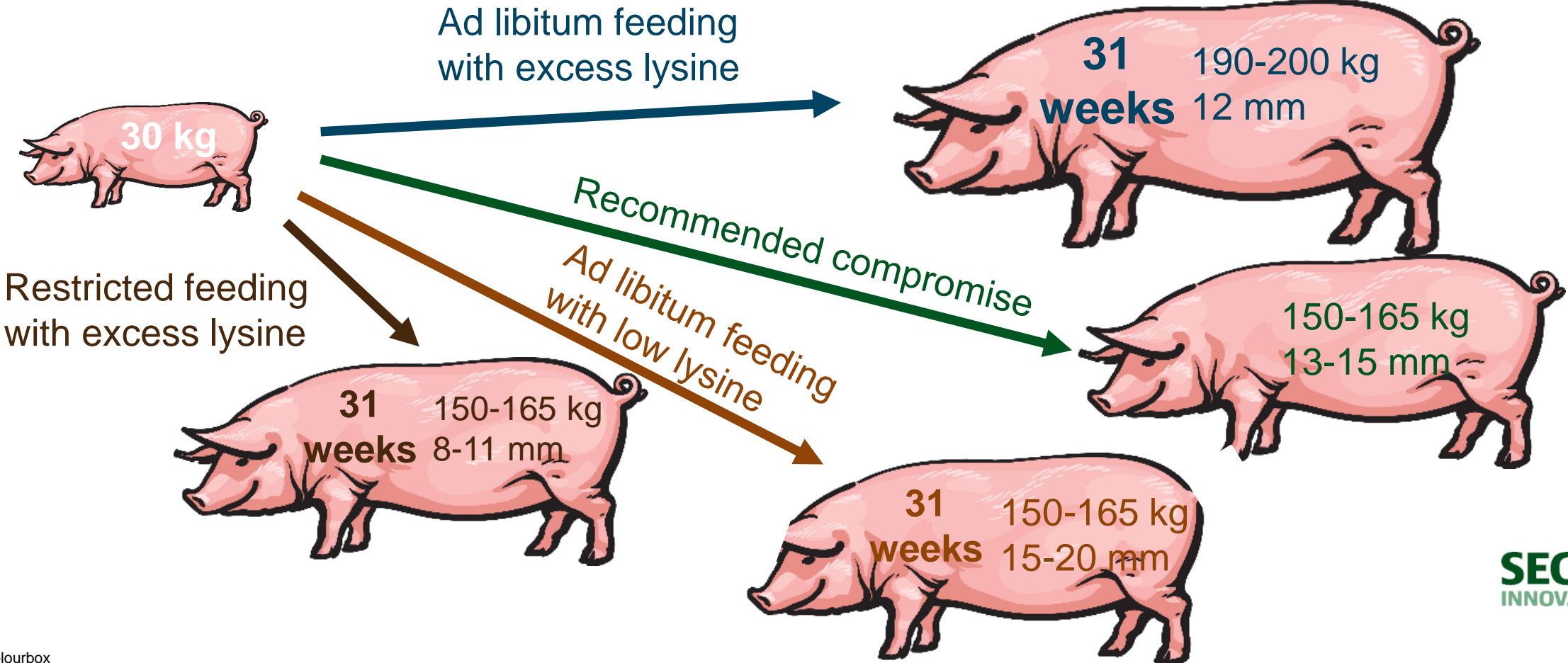
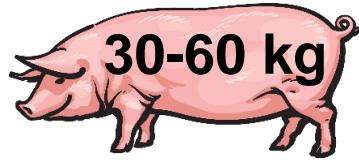


Illustration: Colourbox

# New 2024 feeding standards for gilts includes phase feeding

## Nutrient requirements per FUpig/FUsow

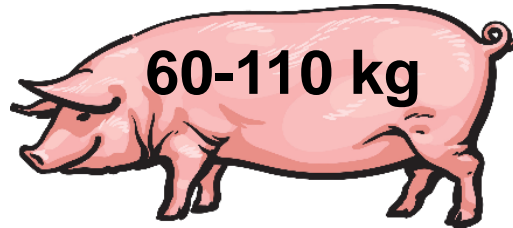


30-60 kg

**SID lysine: 7,7 g**

SID protein: 114 g

Dig. phosphorous: 2,5 g

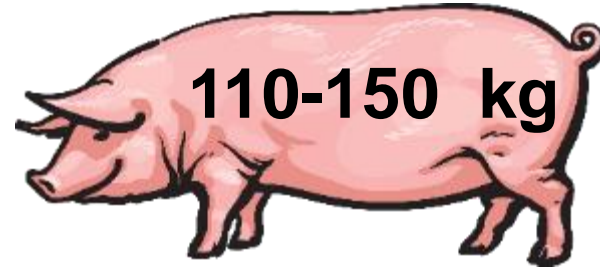


60-110 kg

**SID lysine : 6,0 g**

SID protein : 100 g

Dig. phosphorous: 2,3 g

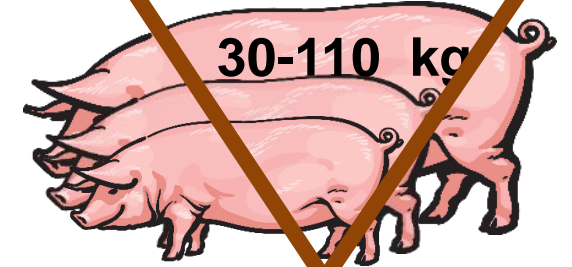


110-150 kg

**SID lysine : 4,0 g**

SID protein : 80 g

Dig. phosphorous: 2,0 g



30-110 kg

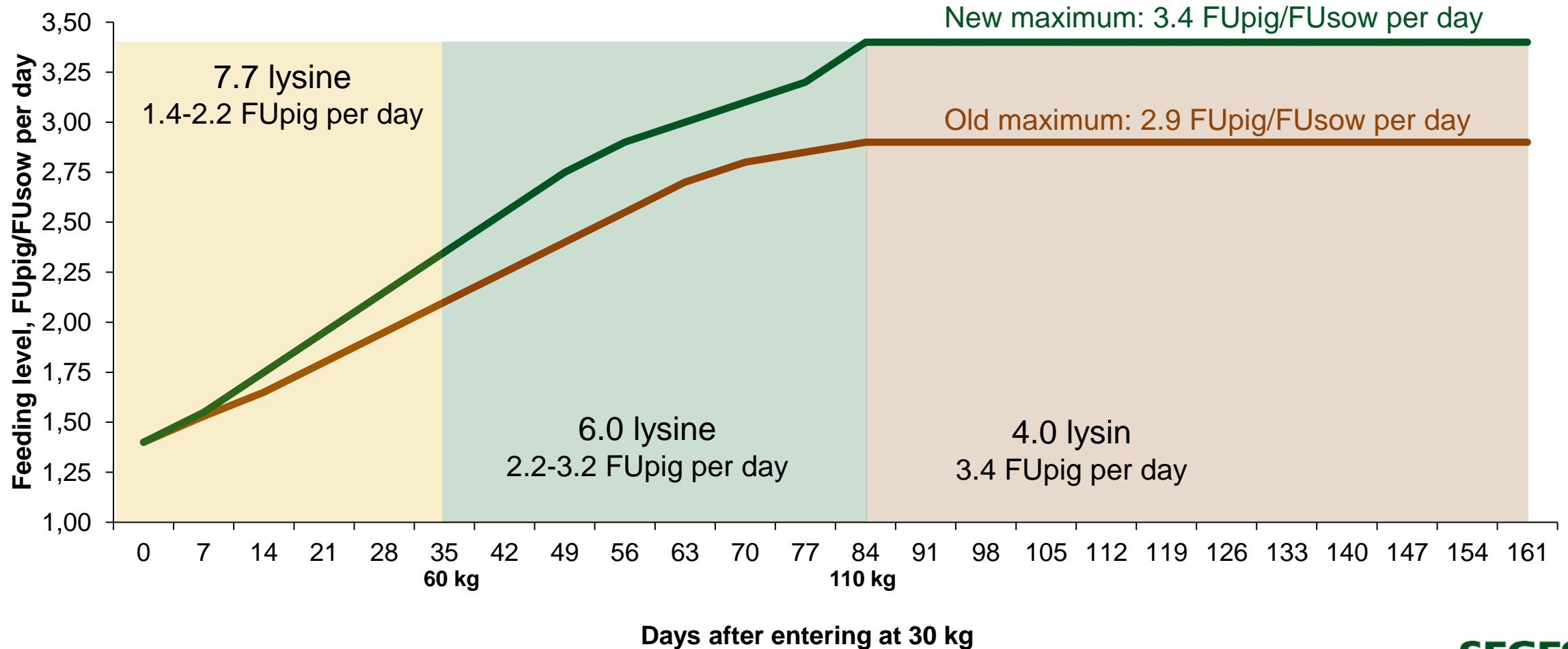
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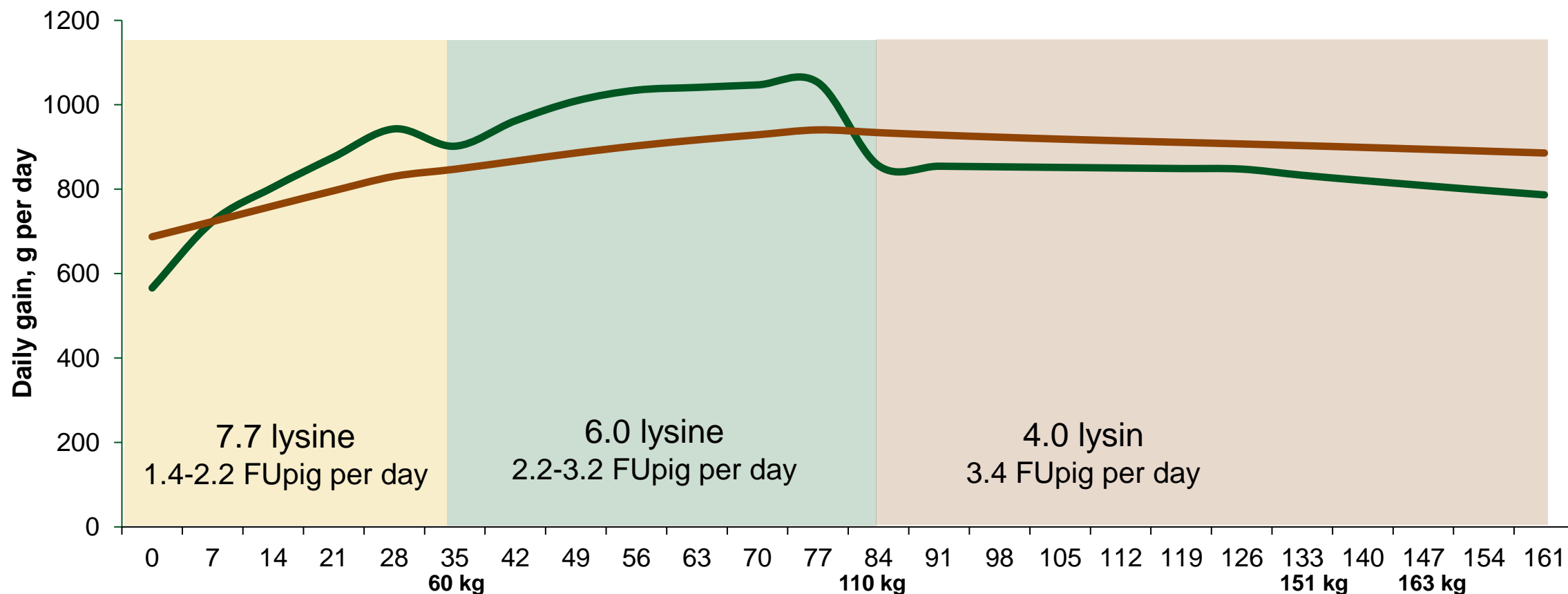
# New 2024 feeding curve for gilts

A necessity to achieve sufficient backfat with modern genetics



# Consequences combining new standards and new feeding curve

## Average daily gain over time



Dage efter indsættelse ved 30 kg

— Average daily gain last 7 days, g/day

— Average daily gain until now, g/day

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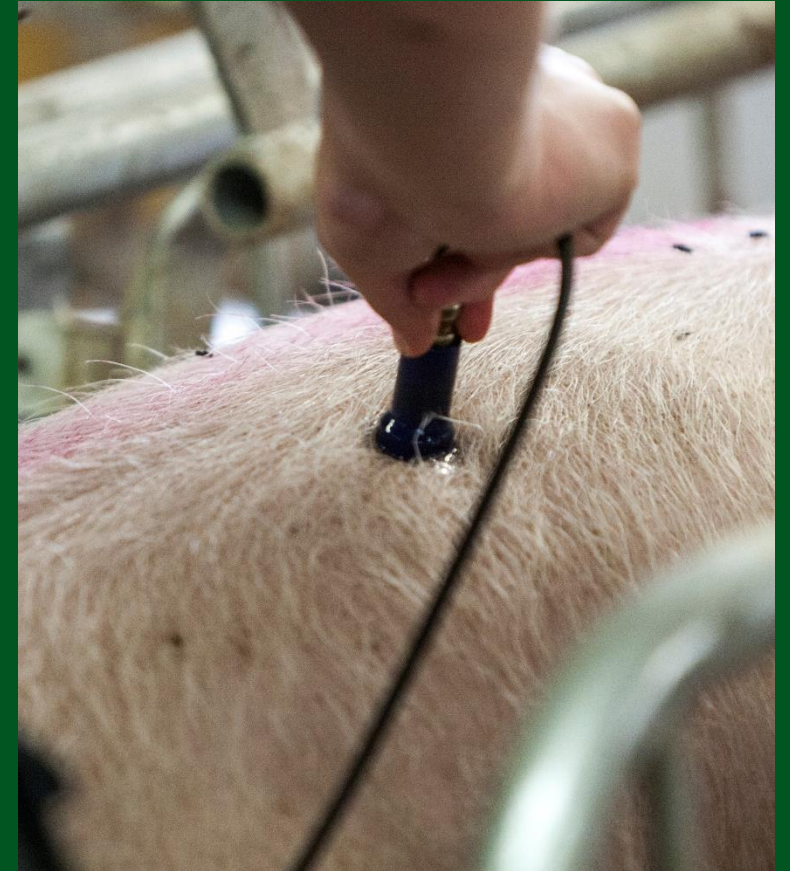


Photo: Rasmus Bendix, Bendix Production

# Physical or mathematical limitation in the quarantine?

Rethink the timeline of the gilt in your herd (single 12 week quarantine)





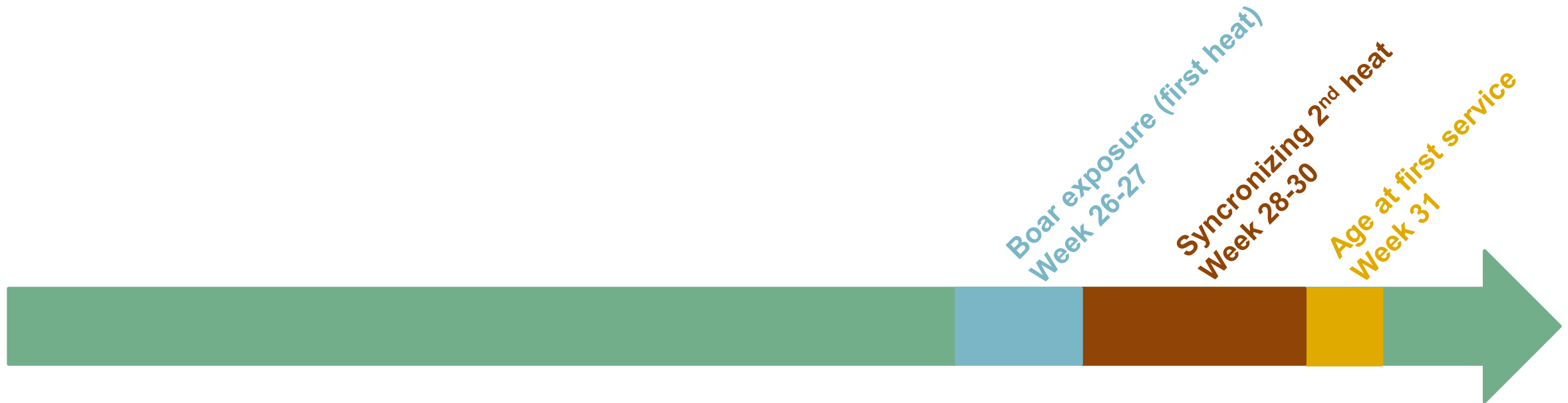
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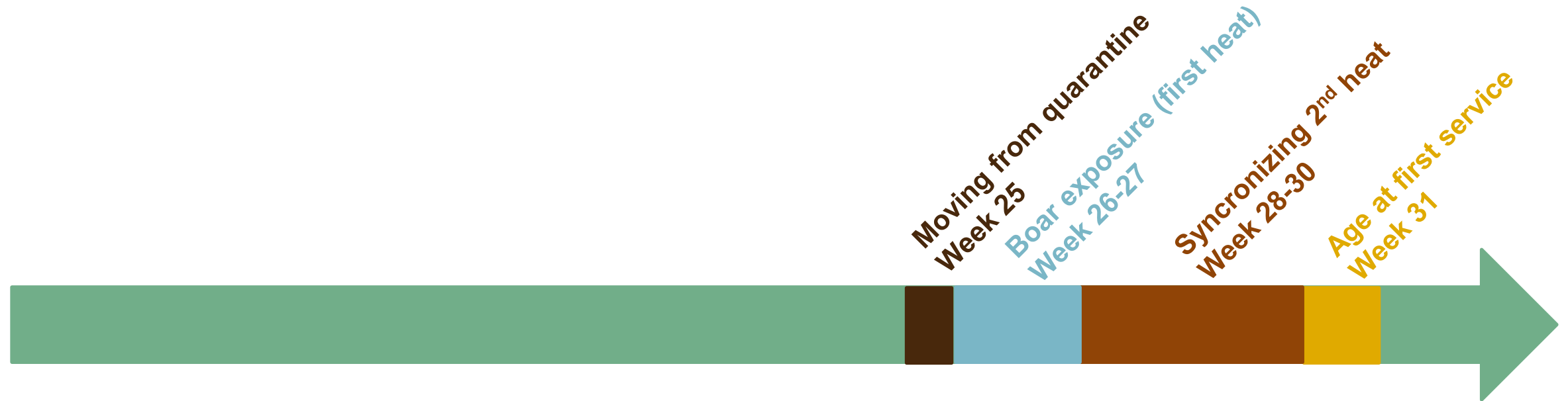
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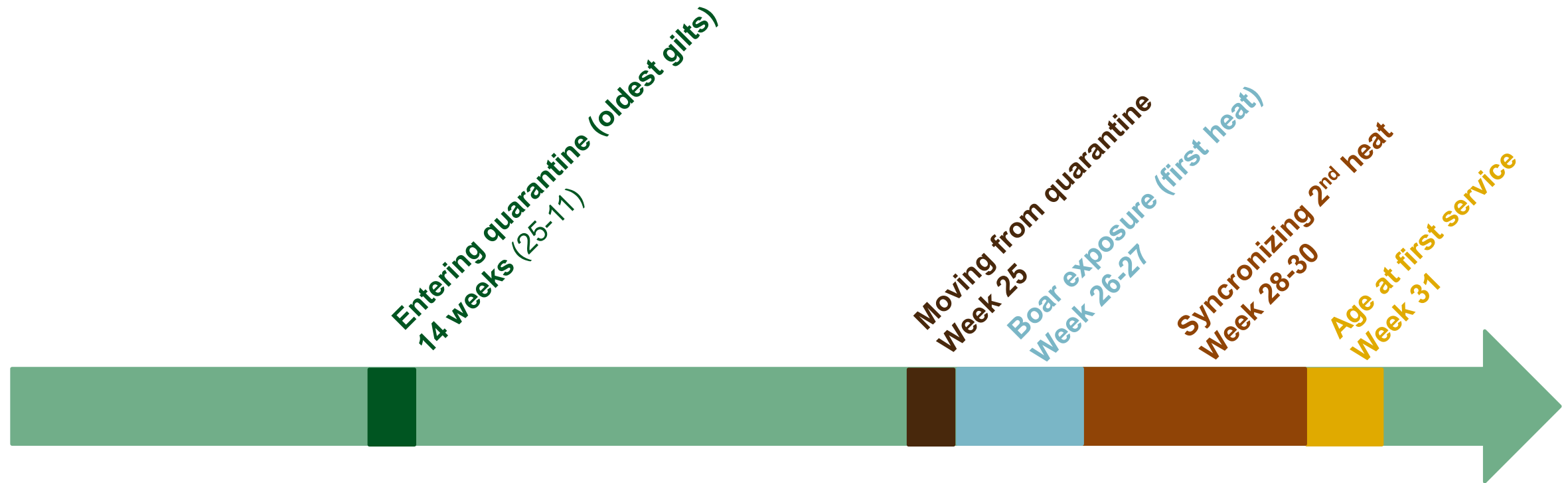
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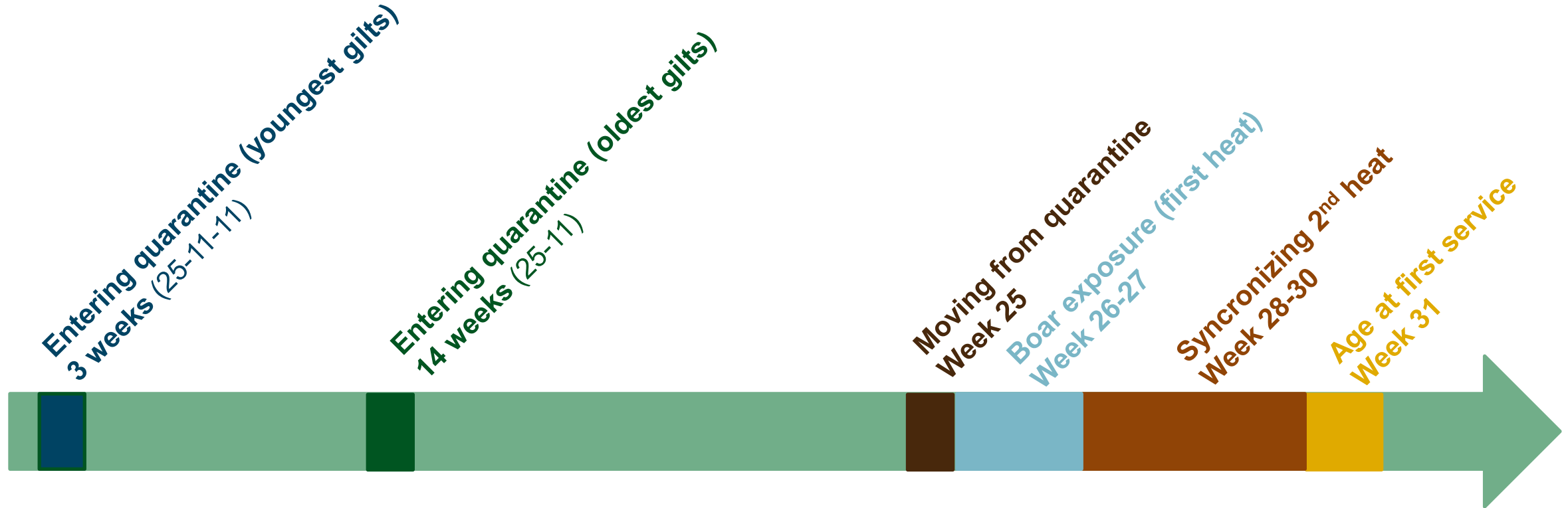
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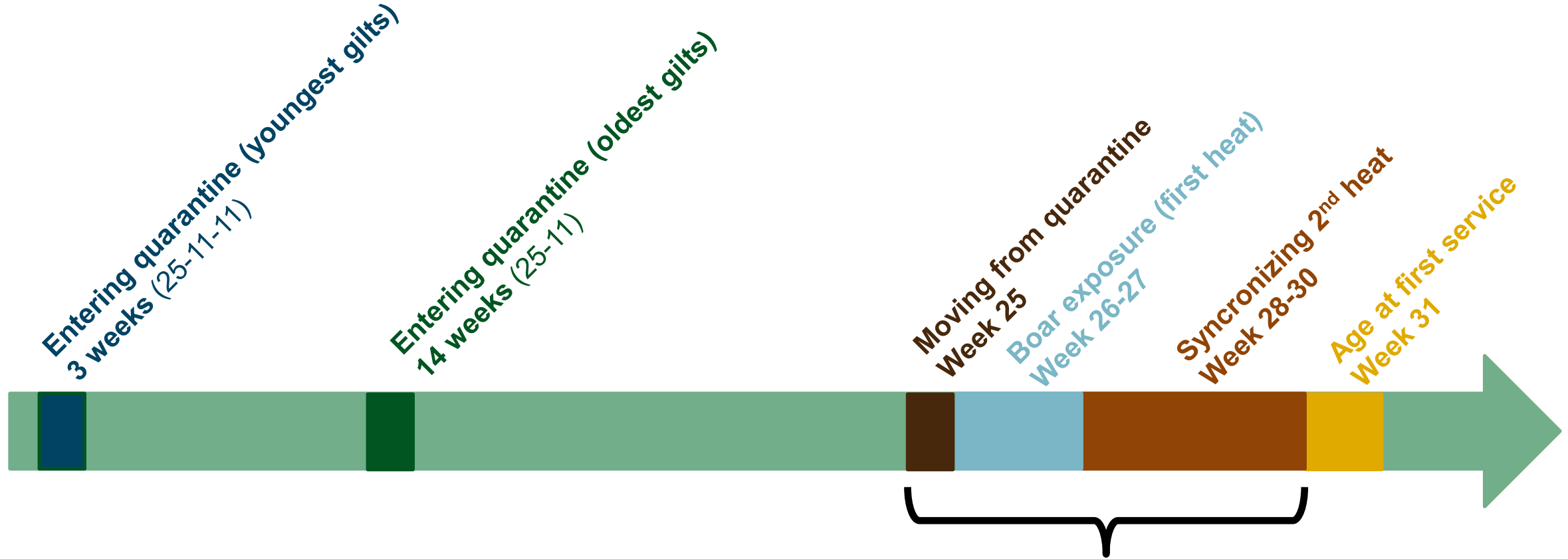
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Rethink the timeline of the gilt in your herd (single 12 week quarantine)



# Physical or mathematical limitation in the quarantine?

Rethink the timeline of the gilt in your herd (single 12 week quarantine)



Having ESF/Transponder you also need time to train the gilt somewhere ...

# Staggered use of two or three quarantine facilities

A way to ease gilt management and feed more correctly

1 × 8 weeks

In

Gilts  
needed  
for 8  
weeks

11-18  
weeks

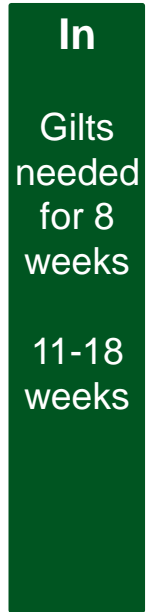
Outd



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1 × 8 weeks



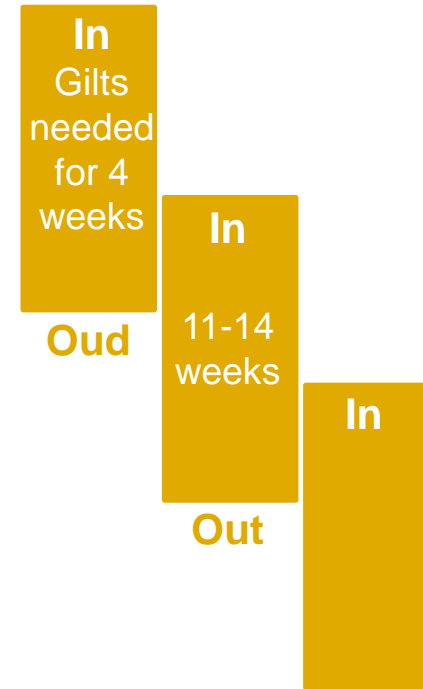
1 × 12 weeks



2 × 12 weeks



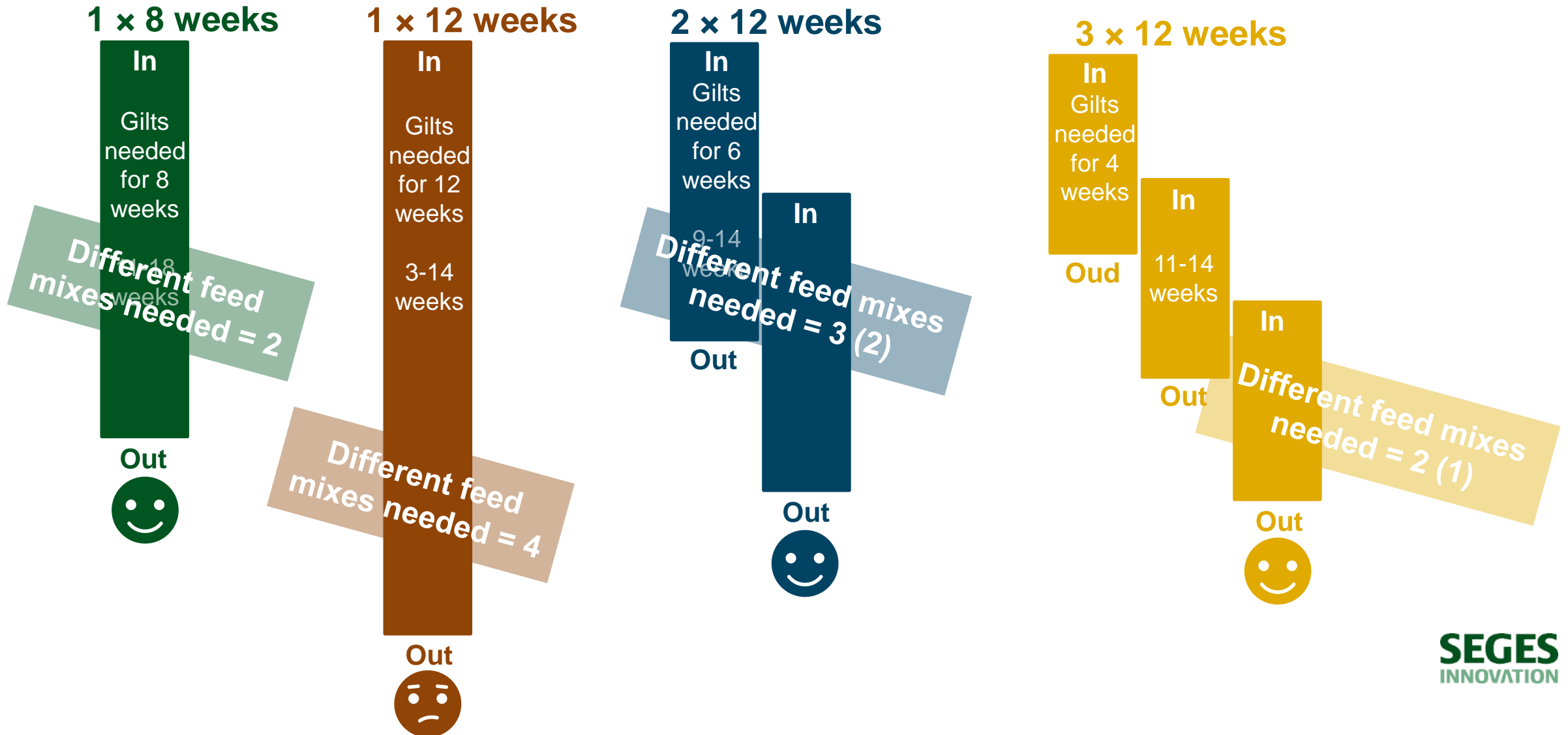
3 × 12 weeks





# Staggered use of two or three quarantine facilities

A way to ease gilt management and feed more correctly



# Number of diets or manual corrections

## A possibility to compensate for a bad feeding system

- Can a 60-110 kg diet be modified to fit 30-60 kg gilts by using soybean meal? **YES**
  - 100 g of soybean meal provides 2,6 g SID with an acceptable amino acid profile
  - 200 g soybean meal per gilt per day can be an easy solution from 30-60 kg

Feed level, FUpig per day	60-110 kg feed foder, Fupig	Soybean meal, g per day	SID lysine, g per FUpig
2.2	2.0	185	7.7
2.4	2.2	202	7.7
2.6	2.4	218	7.7
2.8	2.6	235	7.7

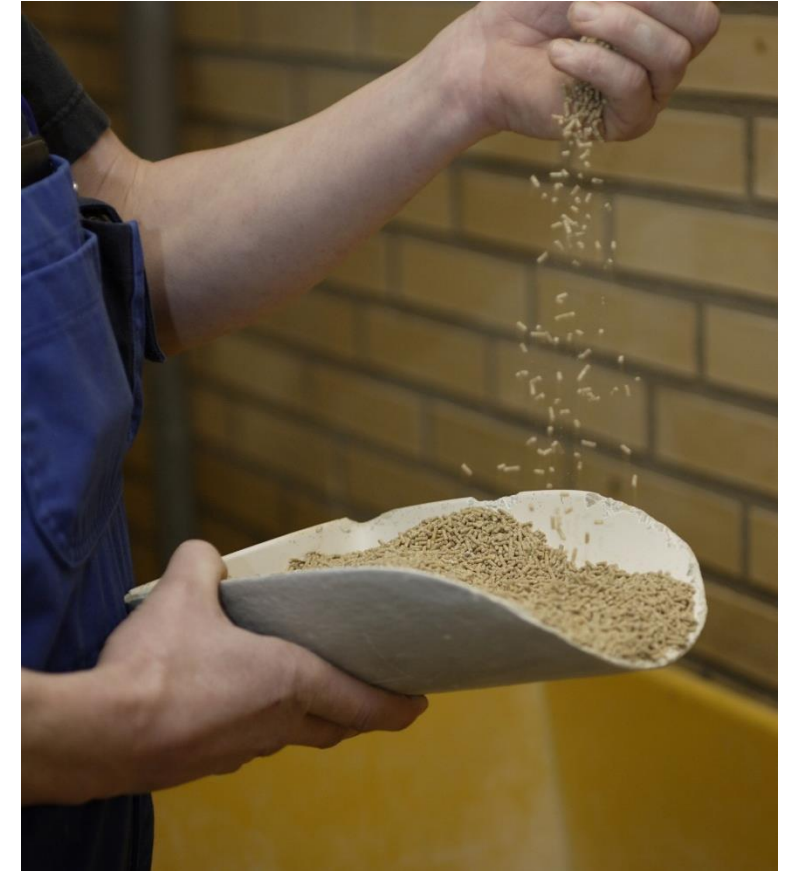


Photo: SvineRådgivningen (with permission)

# Get control of your gilts

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Take home messages



Photo: Lars Mikkelsen

# Simple overview of variations in gilts entering the herd

## Example from Cloudfarms shows distribution of age at first service

### Løbningsperformance

Navn	0-210	211-220	221-230	231-240	241-250	251-260	261-999
Løbninger [#]	0,00	3,00	25,00	74,00	144,00	232,00	231,00

Few data

... critical age at first service ...

### Faring performance

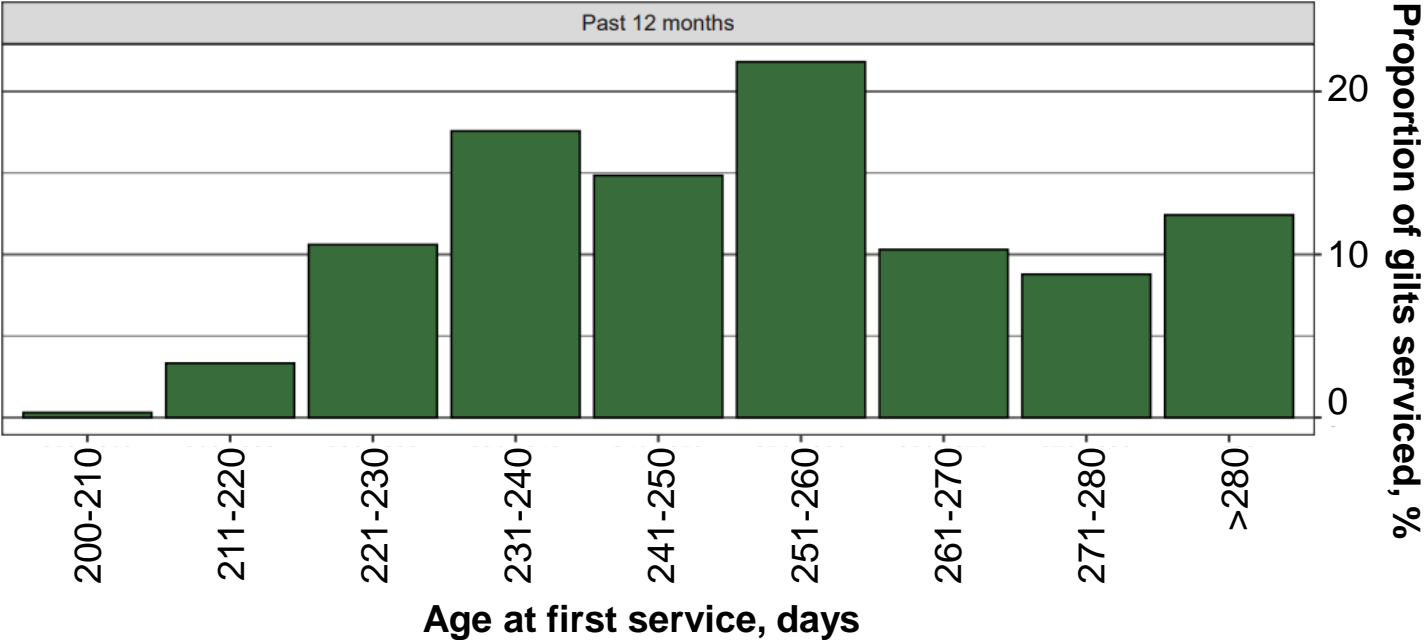
Navn	0-210	211-220	221-230	231-240	241-250	251-260	261-999
Faringsprocent [%]	0,00	100,00	85,71	91,30	95,80	92,28	86,67
Total fødte pr kuld [#]	0,00	17,67	19,22	17,21	17,25	17,27	17,92

Few data

... the derived consequences...

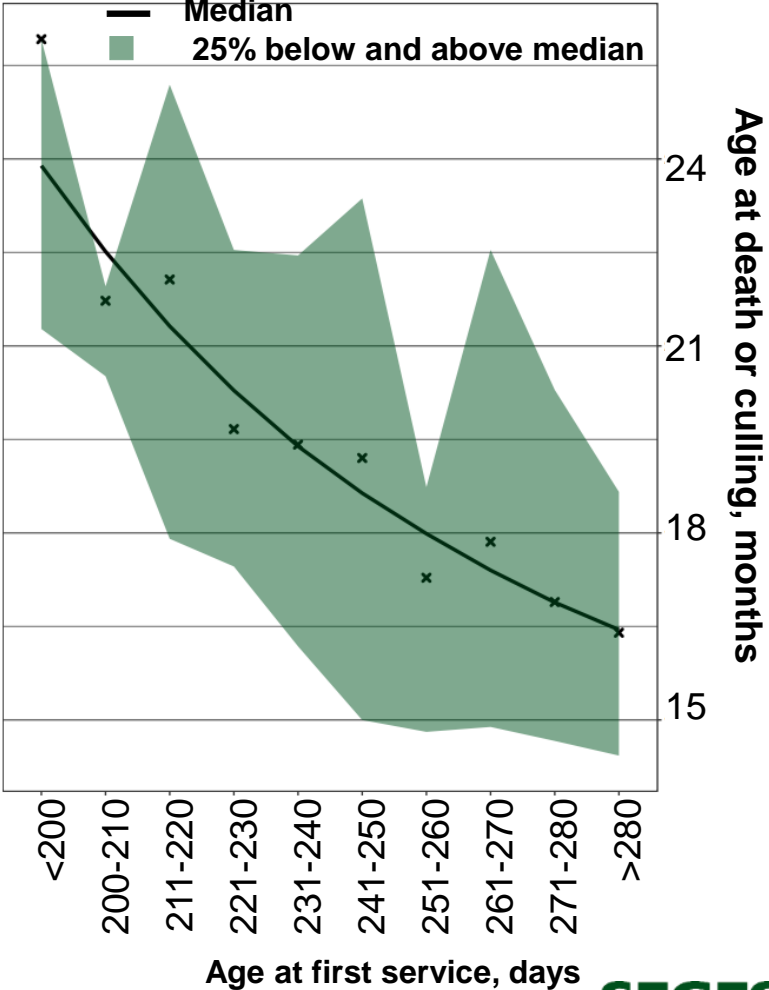
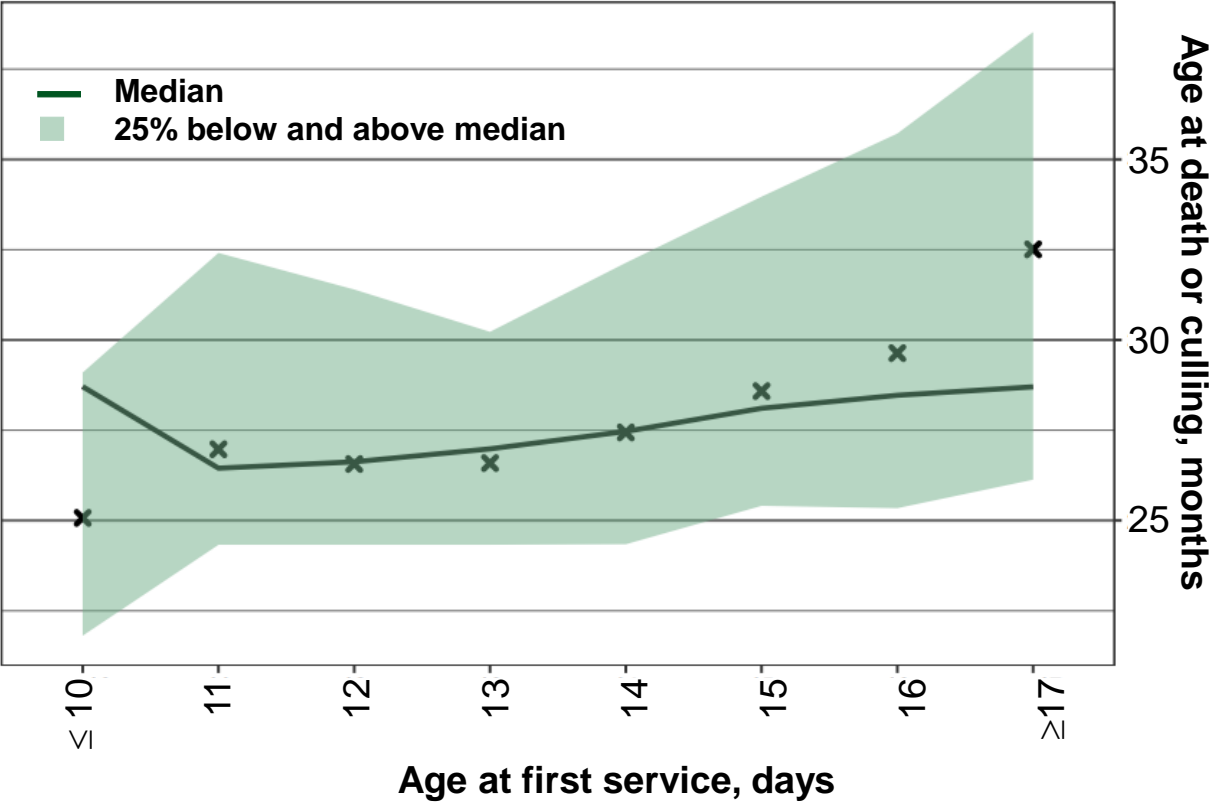
# More advanced analytical approach to age at first service

## Examples from SoOptimizer (SEGES InSight)



# More advanced analytical approach to age at first service

Examples from SoOptimeter (SEGES InSight)



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Photo: Lars Mikkelsen

# Get control of your gilts

## Take home messages

### Focus on weight at first service

- Longevity is determined by weight and backfat rather than age

### Management must include phase feeding and the new feeding curve

- If not the gilts will be too old and too heavy at the time when they have optimal backfat level

### Our aims at first service are:

- 150-165 kg (lighter is preferred if possible)
- 13-15 mm backfat (12 mm is better than to wait + 10 kg)
- 30-33 weeks (older gilts become too heavy and will increase replacement rate)

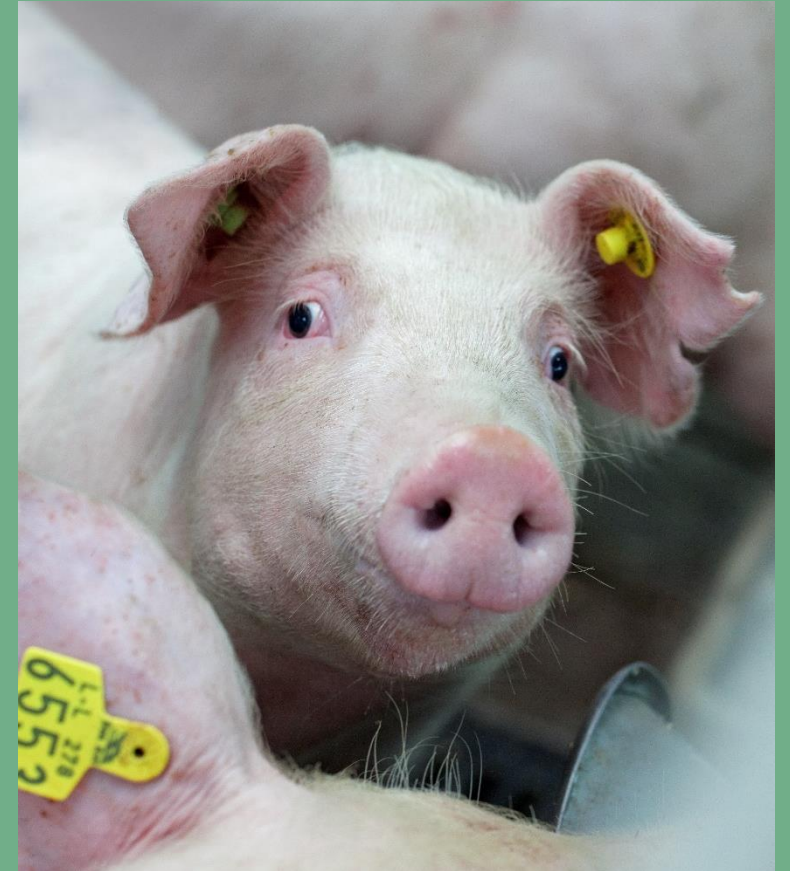


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