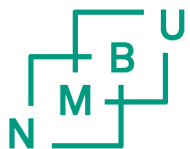


# The effect of dietary energy levels during rearing and first gestation on sow lifetime performance

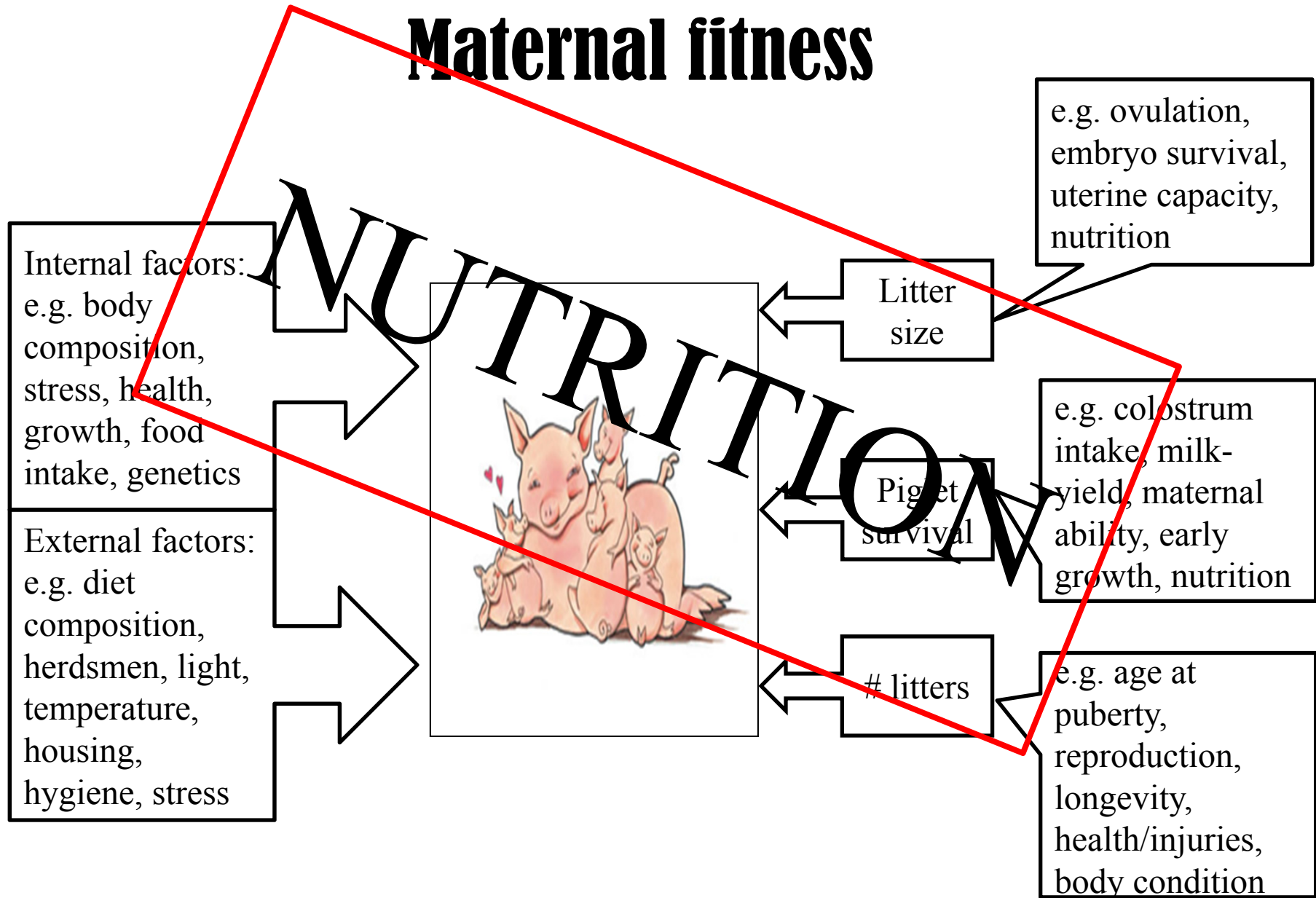
Signe Lovise Thingnes, Ann Helen Gaustad, Nils Petter Kjos, Ellen Sandberg & Tore Framstad



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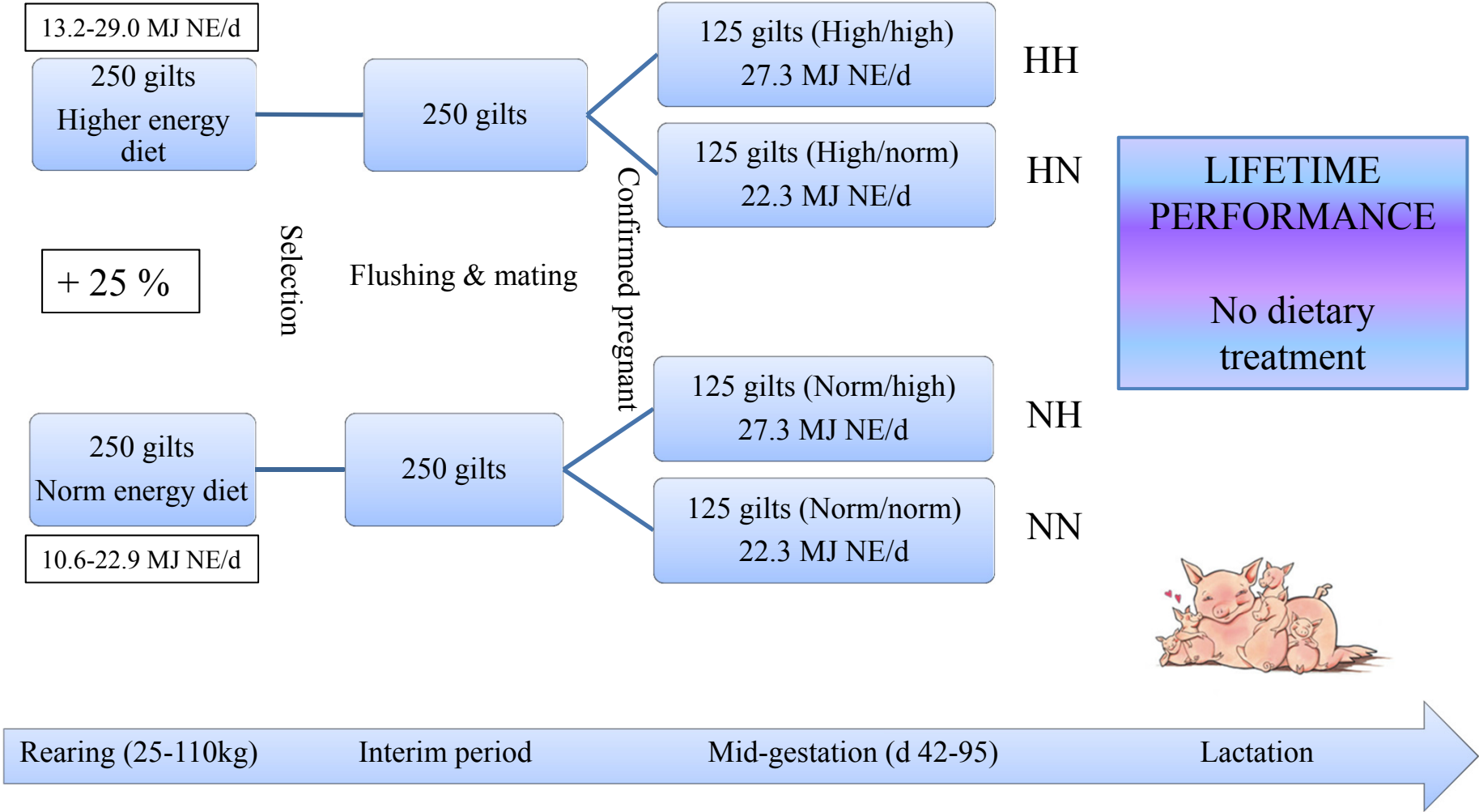
# Maternal fitness



# Introduction

- Unfortunate conflict between selection for leanness and high productivity, with longevity
- Nutrition and management during the first reproductive cycle is important for longevity
- Will dietary energy manipulations during rearing and first gestation affect lifetime performance?

# Trial design



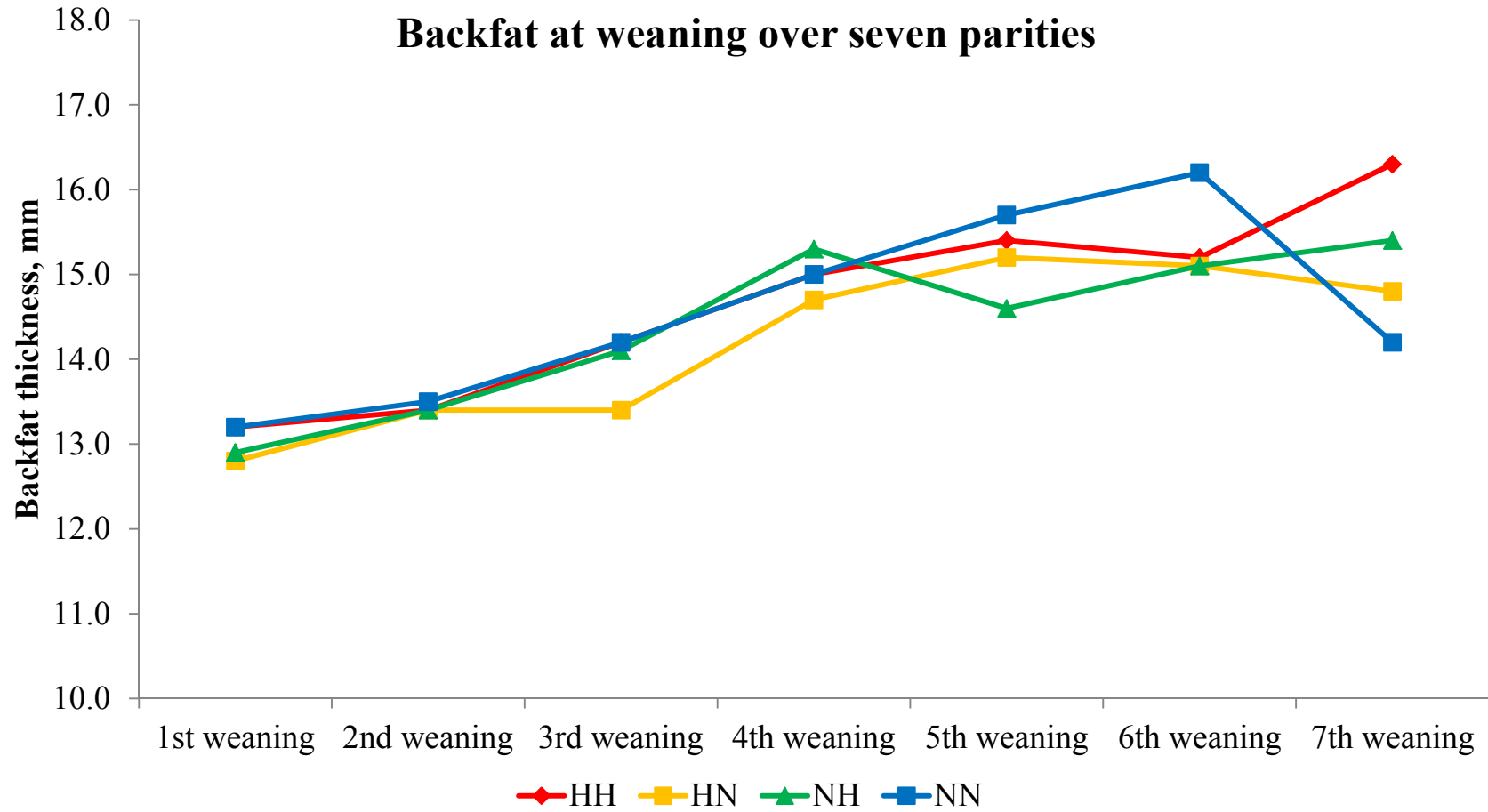
# Materials & methods

- Data collection
  - Sow age, weight and backfat thickness
  - Litter size and weight
  - Time of culling and reasons
- Statistical analysis
  - Repeated measures
  - Linear mixed models
  - Log-linear regression
  - Logistic regression
  - Survival analysis

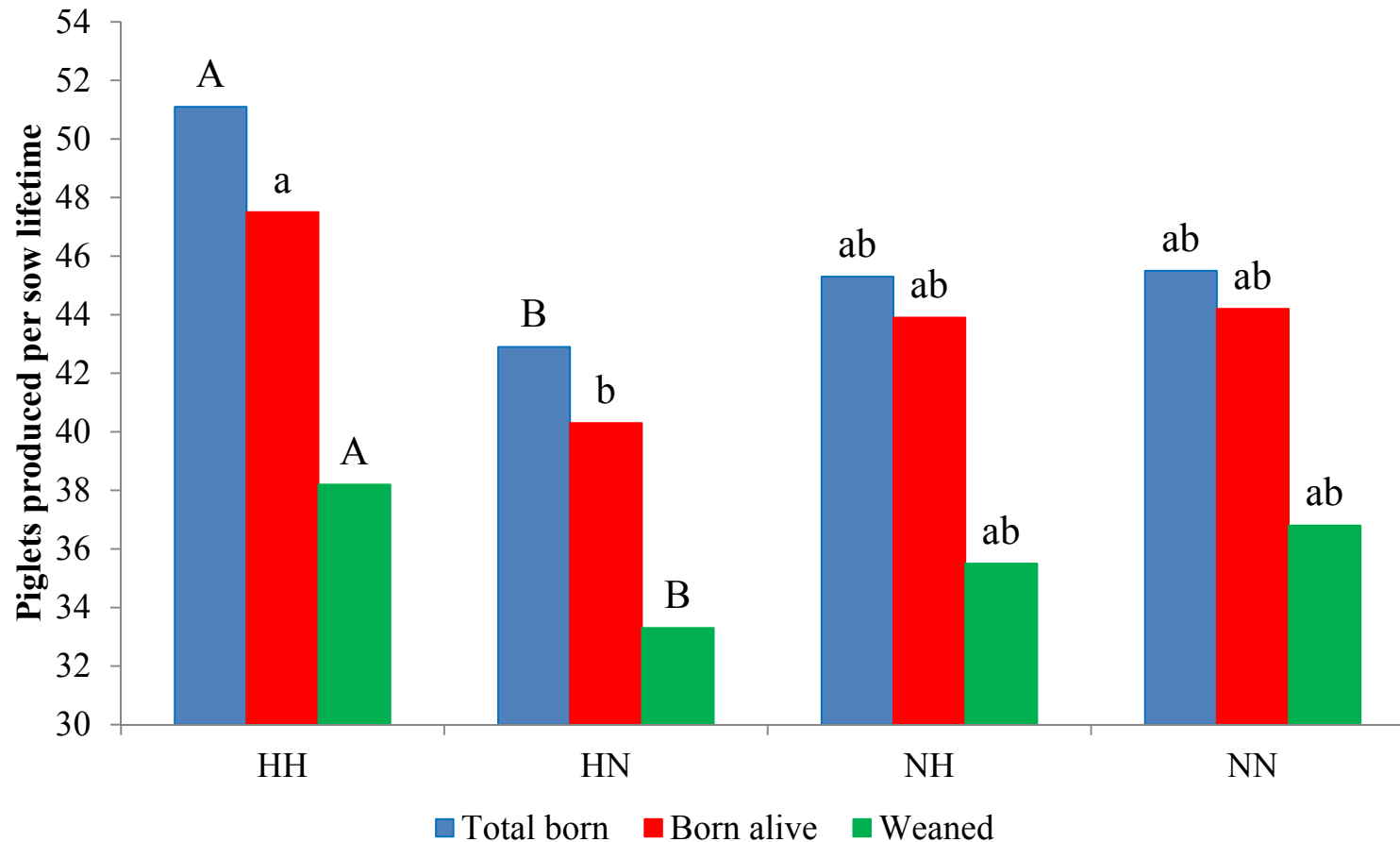
All results are based on field data collected in a commercial sow-pool



# Main results



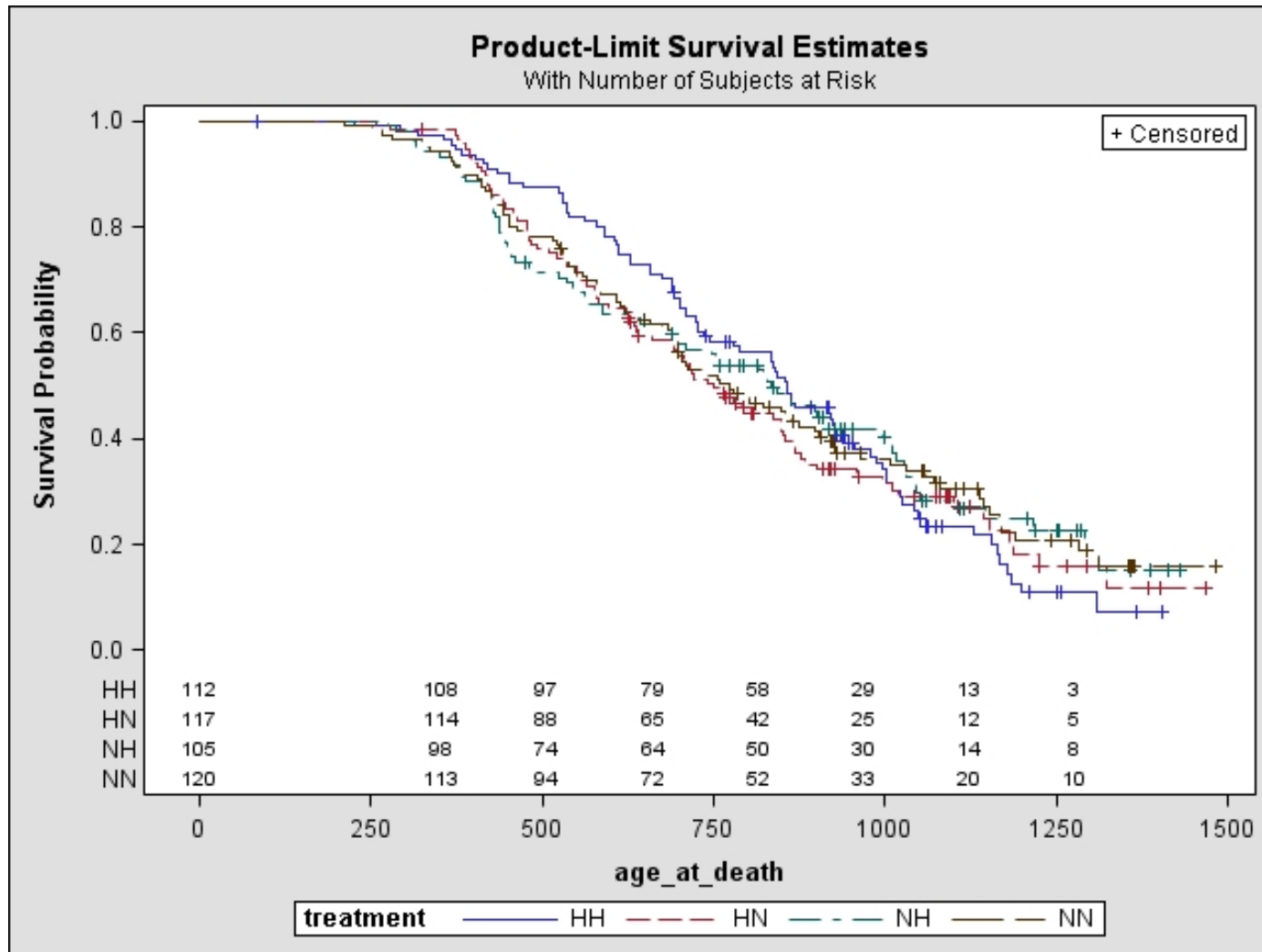
# Lifetime performance



<sup>a-b</sup> Between columns of similar color, LS means with different lettering differ  $P < 0.05$

<sup>A-B</sup> Indicates statistical trend  $P$  – value between 0.05 - 0.10

# Survival probability according to gilt development strategy





# Main conclusions

- Regardless of gilt development strategy, all groups showed an increase in backfat over successive parities, however the HN sows remained the overall leanest group
- The HH gilts produced more piglets per sow lifetime compared to the HN sows, with NH and NN sows at intermediate production levels
- Estimated survival probability did not differ between gilt development strategies, but more HH sows remained until higher parities

Gary Larson 1985, the far side



"Well, I guess I'll have the ham and eggs."

# Thank you for your attention!



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