

Sow removal patterns in Norwegian and US herds

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Topigs Norsvin

PROGRESS IN PIGS

Health and robustness project

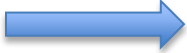
- The overall idea is to develop new methods and strategies in order to increase the general robustness and disease tolerance of Norwegian pigs in both Norwegian and foreign markets.
- Identifying available phenotypes that could help in describing the innate robustness of pigs more accurately

Introduction

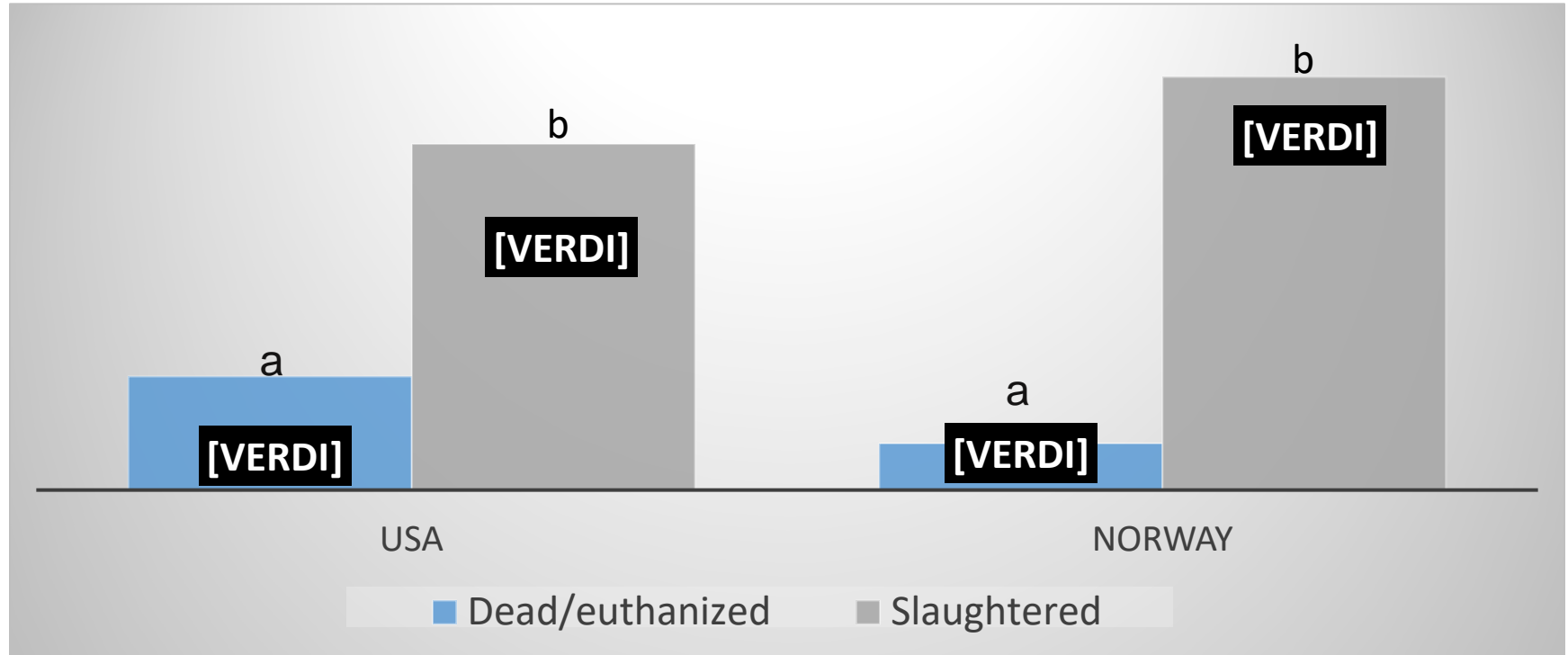
- Length of productive life is directly related to¹:
 - number of piglets produced
 - infertility rates
 - average litter size
 - Non-productive days
- Herds with a low replacement rate are the most profitable²
- Ethics and animal welfare consideration

¹ Diaz et al., 2015 (in: *The gestating and lactating sow*), ²Faust et al., 1992, 1993,

Data

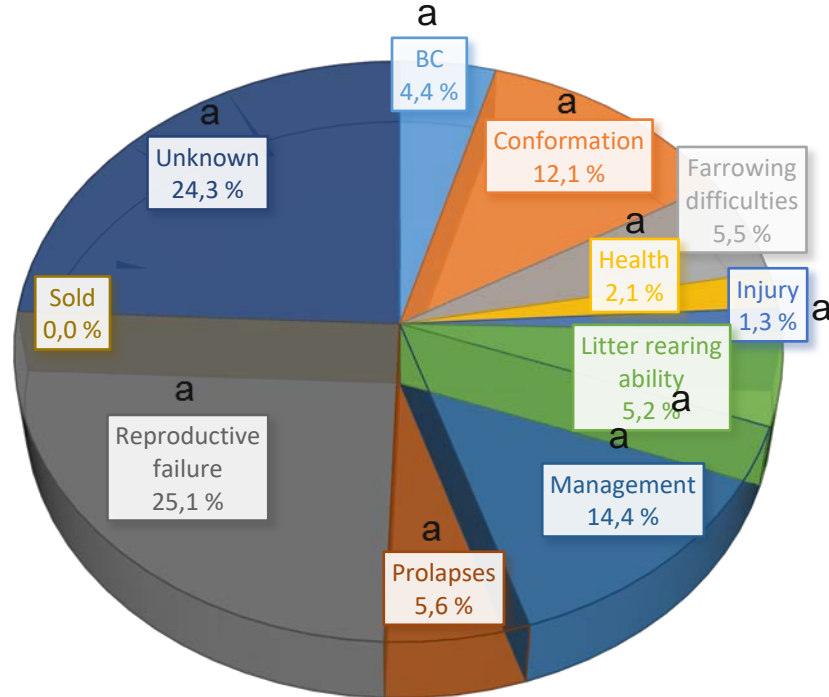
- Removal records from 5308 sows in US commercial herds
- Removal records from 47607 sows in Norwegian commercial herds
- Collection period: January 1st 2014 – June 30th 2016
- Data collected from the national litter recording system Ingris
- 37 removal categories  11 main categories

Method of removal

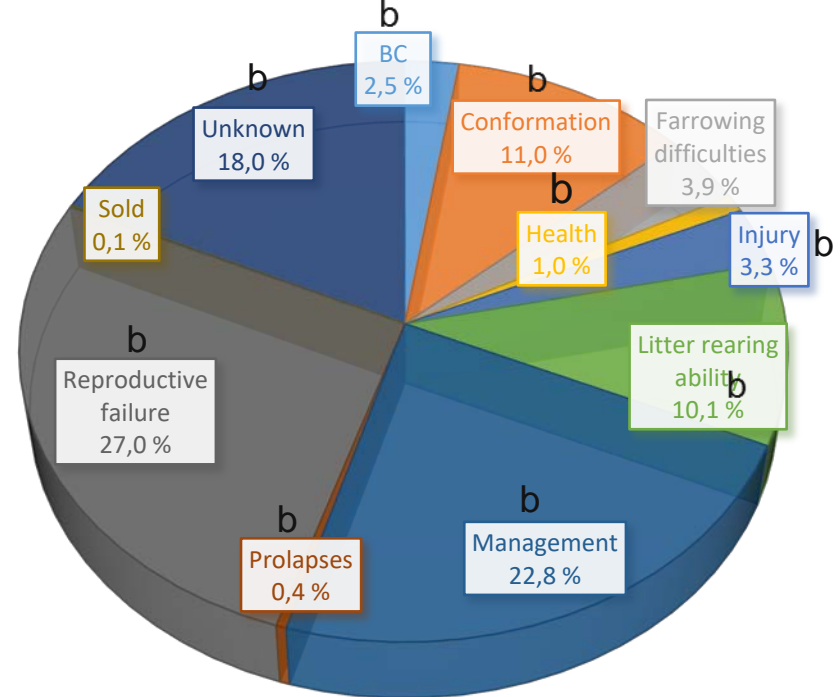


Within category and between countries different lettering notes statistical difference $P < 0.0001$

REMOVAL REASONS USA



REMOVAL REASONS NORWAY

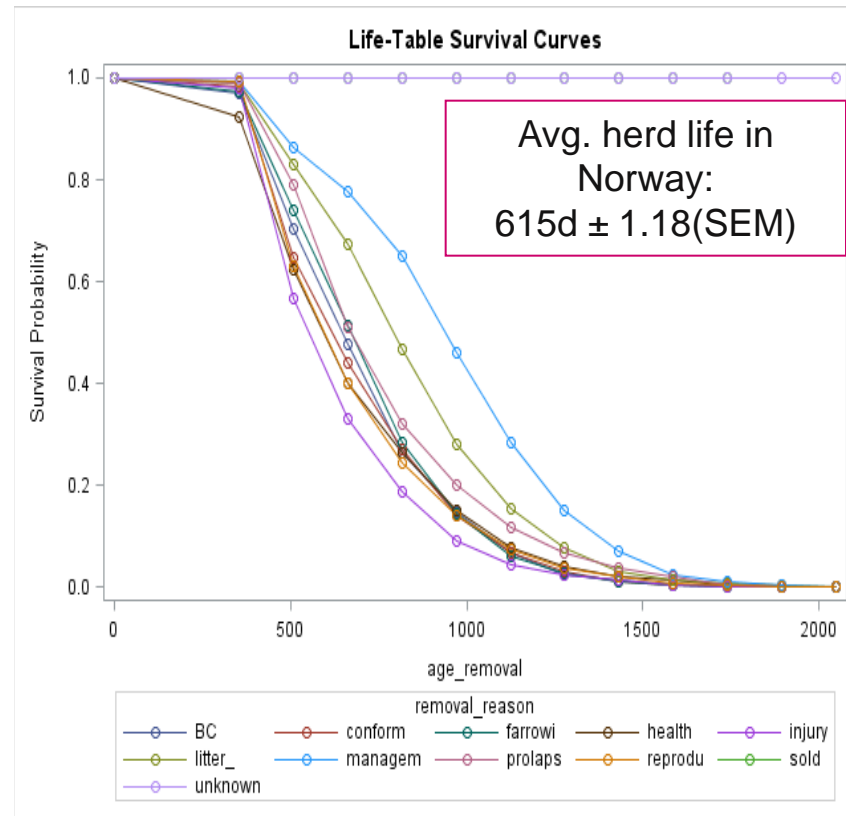
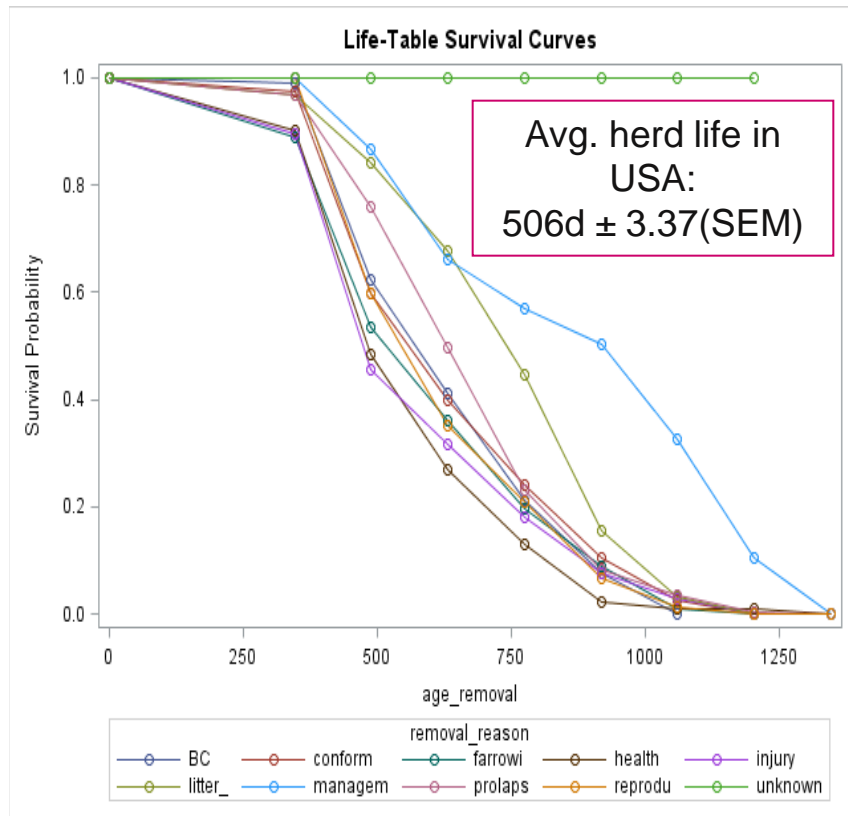


Within removal reason and between country different lettering indicates statistical difference $P < 0.001$

Reproductive failure

- 25 and 27% of all sows are culled due to reproductive failure in US and Norway respectively
- 40% of all culling's due to reproduction occurs between first mating and immediately after first farrowing
- Sows culled at an early stage is costly, and the initial replacement cost has not been made
- It is also a welfare concern

Longevity



Conclusions

- More dead/euthanized sows in US compared to Norway
- Removal categories differ somewhat between country, but the removal patterns show similarities
- Reproductive failure is the number one culling reason
- Almost a quarter of all removals, regardless of country, are registered as unknown

Implications

- Simplification of removal registrations needed
- More focus on reproduction
- Improved profitability with improved longevity
 - In Norway alone an extra piglet weaned per litter amounts to 11.7 mill/€ in increased revenue
 - for the Nordic market alone a reduction in removal rate of 20% means annual savings of around 3 mill/€
- Better animal welfare

Thanks for your attention



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