

Culling of Estonian dairy cows - causes and risk factors

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AIM - determine the causes and risk factors for culling of dairy cows in Estonia

MATERIALS AND METHODS

DATA

- Estonian Agricultural Registers Information Board
- Estonian Livestock Performance Recording, Ltd.
- Herd with ≥ 20 cow-years
- All lactations between 1 January 2013 – 31 December 2015
- Observation period from calving to calving

ANALYSES

- Weibull proportional hazard random effect models
- Culling = death + euthanasia + slaughter
- Variables retained if $p < 0.001$

CONCLUSIONS

- Main causes of culling - feet/claw, udder, metabolic and digestive disorders
- Early post-partum period - highest risk of culling
- Last third of the lactation period - fertility problems are the leading cause of culling
- To lower culling rates ensure good health around parturition and easy calving

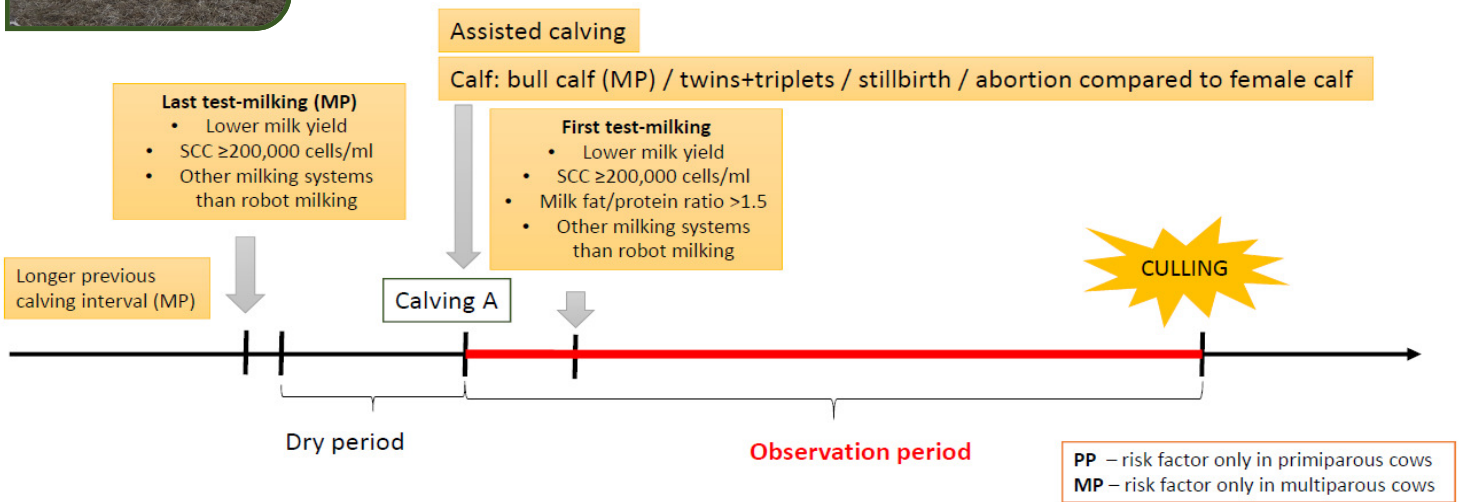
Risk factors for culling

Herd level risk factors: larger herd size, decreasing herd size within three study years, Higher herd milk yield (MP), shorter herd average calving interval (MP)

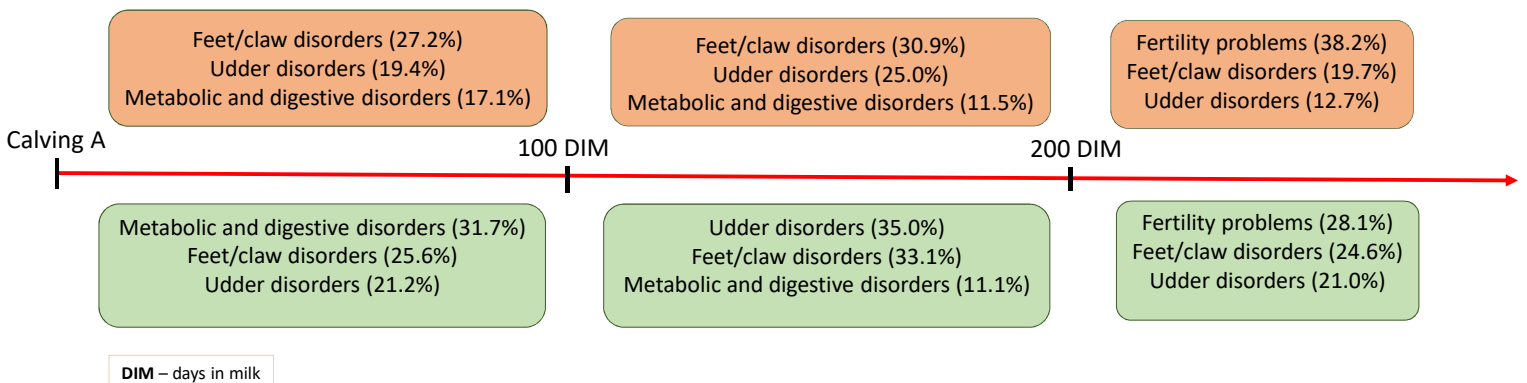


Cow level risk factors: Holstein breed, lower milk yield breeding value, higher age at first calving, higher parities

Lactation level risk factors:



REASONS FOR CULLING BY LACTATION STAGE IN PRIMIPAROUS AND MULTIPAROUS COWS



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