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Risk factors for on-farm mortality in beef cows under extensive keeping management

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Background

- On-farm mortality = unasssited death & euthanasia.
- Indicator of **animal health and welfare.**
- Significant influence on the **economic efficiency** of the farm.

Objectives

- Describe mortality of suckler cows in Estonia.
- Analyse and identify the association between animal- and herd-level factors and on-farm mortality of suckler cows.

Risk factors

Primiparous cows	Both	Multiparous cows
High age at first calving	First 30 days post-calving	Parity 6 and higher
Stillbirth	Dystocia	Stillbirth/abortion
		Herd high mean age at first calving

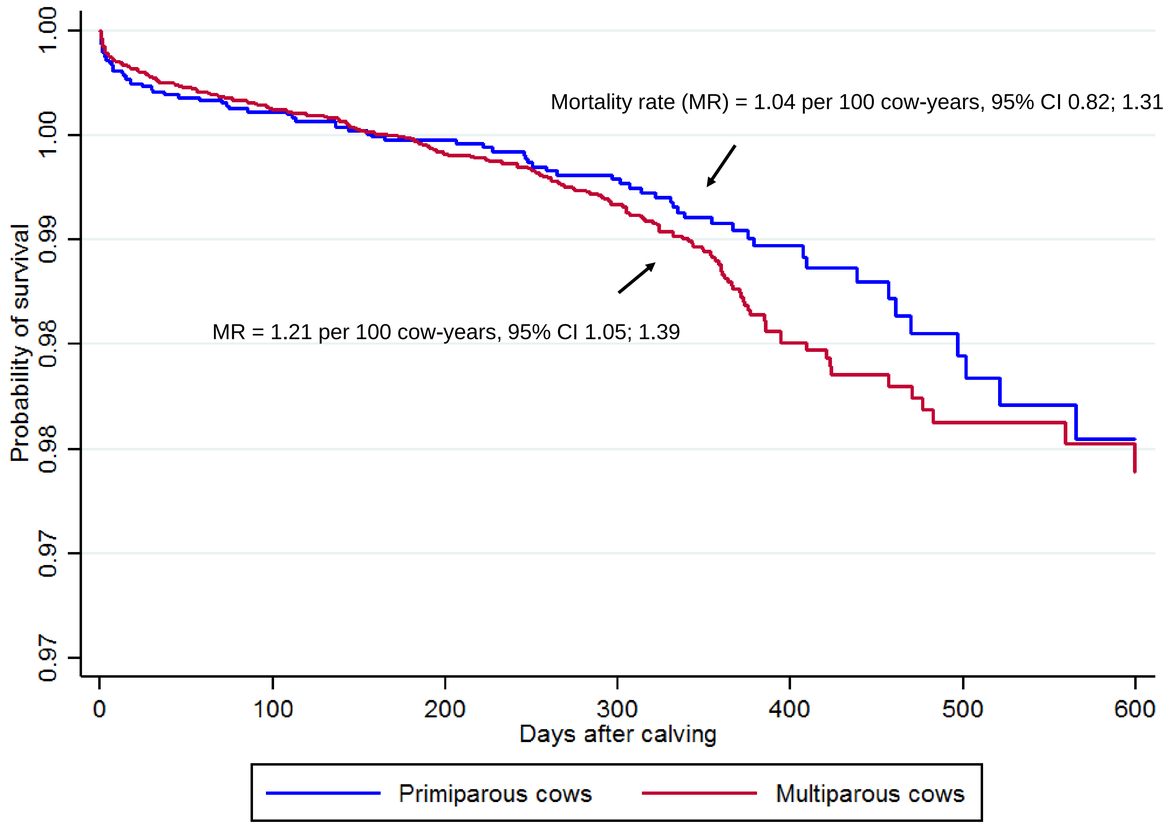

Figure 1. Kaplan-Meier curve for survival probability in primiparous and multiparous cows from the day of calving up to 600 days post calving

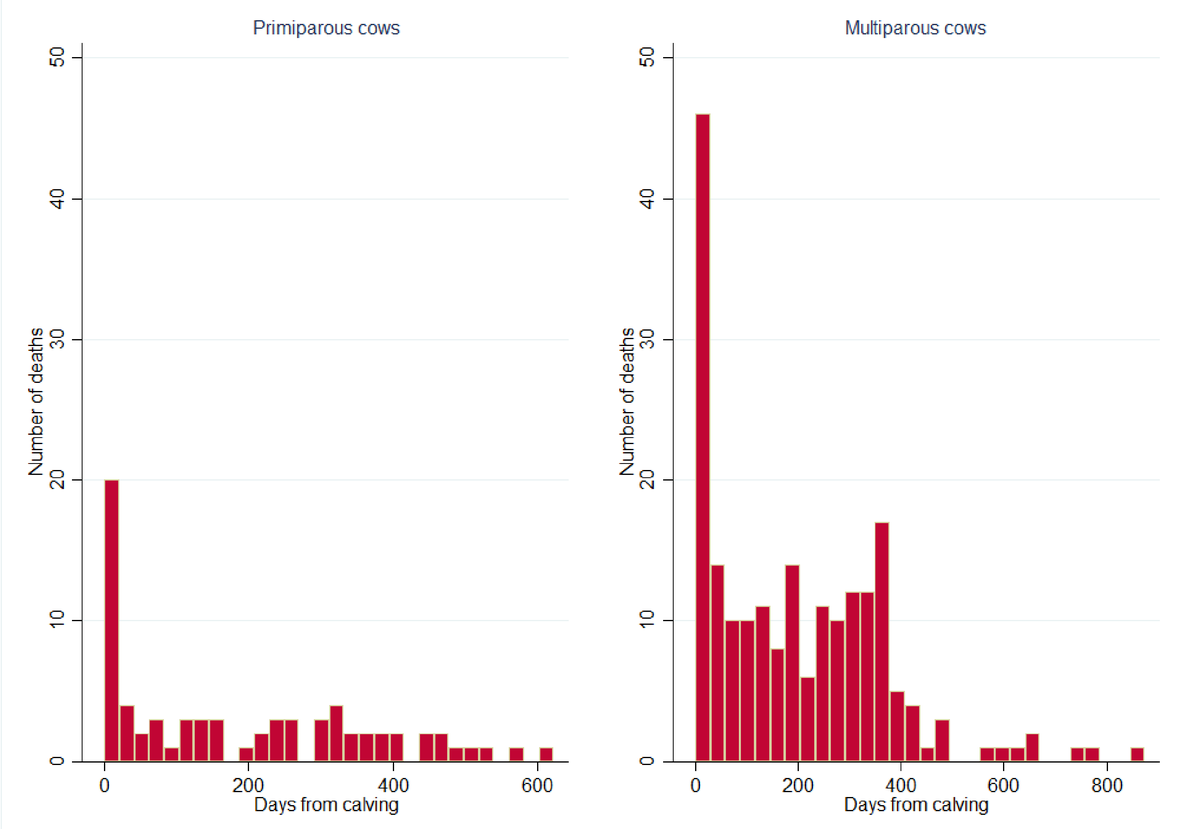

Figure 2. Number of deaths from calving to next calving / right censoring

Methods

- Registry data of beef cows in Estonia from the years 2013 to 2015.
- 7912 parturitions of primiparous cows and 20,865 parturitions of 9233 multiparous cows.
- Weibull proportional hazard random effect model.

Conclusions

- Mortality rate is comparable to research in other countries.
- Early post-calving period is the most critical.
- Animal-level factors e.g dystocia, stillbirth, age at calving are more decisive than herd-level factors.

ACKNOWLEDGEMENTS

The authors thank Olle Antson from the Estonian Agricultural Registers and Information Board and Inno Maasikas from the Estonian Livestock Performance Recording Ltd for data query. This project was funded by the Estonian University of Life Sciences Strategic Development Fund (contract no 8M160114VLVM).

Haridus- ja Teadusministeerium
Estonian Ministry of Education and Research

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