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# **Factors associated with the number of calves born to Norwegian beef suckler cows**

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## **ABSTRACT**

A retrospective cohort study was performed to evaluate factors associated with the number of calves born to Norwegian beef suckler cows. Production data from 20,541 cows in 2210 herds slaughtered over a three-year period (1st of January 2010 to 23rd of January 2013) were extracted from the national beef cattle registry. This study's inclusion criteria were met for 16,917 cows (from 1858 herds) which gave birth to 50,578 calves. The median number of calves born per cow was 2 (min 1, max 18). Two multilevel Poisson regression models with herd random effects showed that early maturing breeds (Hereford and Aberdeen Angus) gave birth to more calves than late maturing breeds (Charolais and Limousin) in four out of five areas of Norway. The significant breed-region interaction indicated that the coastal South East region of Norway, which has a relatively long growing season and gentle topography, yielded the highest number of calves born for all but one breed (Simmental). Cows that needed assistance or experienced dystocia at their first calving produced fewer calves than those that did not: incidence rate ratio 0.87 (95% confidence interval (CI) 0.84-0.91) for assistance and 0.70 (95% CI: 0.66-0.75) for dystocia,

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