



53 Research paper

Prevalence and risk factors for extended-spectrum β -lactamase- and AmpC-producing *Escherichia coli* in dairy farms by Gonggrijp, M.A., Santman-Berends, I.M.G.A., Heuvelink, A.E., Buter, G.J., Van Schaik, G., Hage, J.J. and T.J.G.M. Lam
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in **Significant Impact Group(s)**: AMU reduction strategies \ Legislation and incentives

Species targeted: Dairy;

Age: Adult;

Outcome Parameter(s): herd-level prevalence of ESBL- and AmpC-producing *E. coli*

Summary: This study estimated the herd-level prevalence of antimicrobial resistant bacteria, specifically ESBL- and AmpC-producing *E. coli* among Dutch dairy farms. No association was found between the total AMU and the ESBL/AmpC herd status. The use of third- and fourth-generation cephalosporins, however, was associated with an increased odds of having a positive ESBL/AmpC herd status and seems important in reducing ESBL/AmpC. Four other management factors were also found to be associated with the ESBL/AmpC status of dairy herds: treatment of all cases of clinical mastitis with antimicrobials, a higher proportion of calves treated with antimicrobials, not applying teat sealants in all cows at dry off, and the use of a floor scraper (which is probably not a true risk factor). Also ESBL/AmpC could frequently be cultured from slurry samples collected from Dutch dairy farms.

53 Research paper - Gonggrijp - 2016 - Prevalence and risk factors for extended-spectrum β -lactamase- and AmpC-producing Escherichia coli in dairy

Where to find the original material:

<https://www.sciencedirect.com/science/article/pii/S0022030216306257>;

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