



322 Research paper

**Antimicrobial Resistance on Farms: A Review Including Biosecurity and the Potential Role of Disinfectants in Resistance**

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In **Significant Impact Groups:**

Biosecurity \

Species targeted: Pigs;Poultry;Dairy;Beef;Other;

Age: Not stated;

**Summary:**

Efforts to limit antimicrobial resistance (AMR) on farms have mostly focused on control of the supply and use of antimicrobial drugs, plus husbandry measures to reduce infectious disease. In the United Kingdom and some other countries, substantial progress has been made recently against targets on agricultural antimicrobial drug use. However, resistant bacteria can persist and spread within and between premises despite declining or zero antimicrobial drug use. Reasons for this include: bacterial adaptations, horizontal transmission of genetic resistance determinants between bacteria, physical transfer of bacteria via movement (of animals, workers, and equipment), ineffective cleaning and disinfection, and co-selection of resistance to certain drugs by use of other antimicrobials, heavy metals, or biocides. Aspects of biosecurity have repeatedly been identified as risk factors for the presence of AMR on farm premises, but there are still large gaps in our understanding of the most important risk factors and the most effective interventions.

*322 Research paper - Davies - 2019 - Antimicrobial Resistance on Farms\_ A Review Including Biosecurity and the Potential Role of Disinfectants in Resistance Selection*

**Where to find the original material:**

<https://onlinelibrary.wiley.com/doi/full/10.1111/1541-4337.12438>; <https://doi.org/10.1111/1541-4337.12438>

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