325 Research paper

Vaccines as alternatives to antibiotics for food producing animals. Part 1: challenges and needs

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In **Significant Impact Groups:**

Pathogen management \ Vaccination Specific alternatives

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

Age: Young;Adult;

Summary:

Vaccines and other alternative products can help minimize the need for antibiotics by preventing and controlling infectious diseases in animal populations, and are central to the future success of animal agriculture. This article, synthesizes and expands on the expert panel discussions regarding opportunities, challenges and needs for the development of vaccines that may reduce the need for use of antibiotics in animals. Vaccines are widely used to prevent infections in food animals. Various studies have demonstrated that their animal agricultural use can lead to significant reductions in antibiotic consumption, making them promising alternatives to antibiotics. To be widely used in food producing animals, vaccines have to be safe, effective, easy to use, and cost-effective. Although vaccines have the potential to improve animal health, safeguard agricultural productivity, and reduce antibiotic consumption and resulting resistance risks, targeted research and development investments and concerted efforts are needed to realize that potential.

Where to find the original material:

https://link.springer.com/article/10.1186/s13567-018-0560-8; https://doi.org/10.1186/s13567-018-0560-8

Country: USA; UK; FR; BE; DE