



410 Research paper

Finding alternatives to antibiotics

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In **Significant Impact Groups:**

Prudent use AB \ Veterinarian

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

Age: Adult;

Summary:

The spread of antibiotic-resistant pathogens requires new treatments. As the rate of development of new antibiotics has severely declined, alternatives to antibiotics must be considered in both animal agriculture and human medicine. Products for disease prevention are different from those for disease treatment, and examples of both are discussed here. For example, modulating the gut microbial community, either through feed additives or fecal transplantation, could be a promising way to prevent certain diseases; for disease treatment, non-antibiotic approaches include phage therapy, phage lysins, bacteriocins, and predatory bacteria. Interestingly, several of these methods augment antibiotic efficacy by improving bacterial killing and decreasing antibiotic resistance selection. Because bacteria can ultimately evolve resistance to almost any therapeutic agent, it is important to continue to use both antibiotics and their alternatives judiciously.

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Where to find the original material:

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