

Animal Vaccines

BENEFIT ANIMALS

Animal vaccines are considered the first line of defense against diseases.



Vaccines reduce the need for treating illness, which leads to **less antibiotic use**.¹



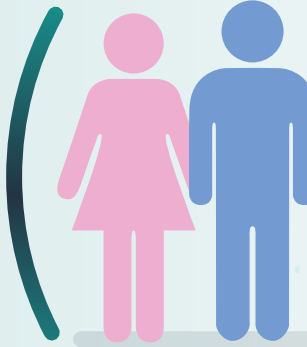
Less disease and illness means improved animal health and well-being.

BENEFIT PEOPLE

Did you know?
Using *E. coli* vaccines on cattle could prevent up to 83% of human infections.²



Vaccines protect animals from contracting diseases that they may then transmit to humans.^{2,3}



Vaccines **minimize the likelihood and spread** of foodborne pathogens.⁴



Vaccines help **keep food affordable**. By keeping animals healthy, food can be produced using fewer resources.⁵

BENEFIT THE ENVIRONMENT

Animal vaccines reduce death loss in animal herds, which means we don't have to treat animals for illness as often and fewer resources are used or wasted.⁵



Healthy animals require fewer resources to grow, which reduces the environmental footprint of raising animals.⁶

¹WHO. Media centre. Antibiotic resistance. Fact sheet. July 2020. <https://www.who.int/news-room/fact-sheets/detail/antibiotic-resistance>. Accessed January 1, 2021.

²Matthews, L., R. Reeve, D. L. Gally, J. C. Low, M. E. J. Woolhouse, S. P. McAteer, M. E. Locking, M. E. Chase-Topping, D. T. Haydon, J. Allison, M. F. Hanson, G. J. Gunn, and S. W. J. Reid. 2013. Predicting the public health benefit of vaccinating cattle against *Escherichia coli* O157. *Proc Natl Acad Sci. USA.* 110(40):16265-16270. <https://www.pnas.org/content/110/40/16265>. Accessed January 1, 2021.

³Rose, N. and Andraud, M. The use of vaccines to control pathogen spread in pig populations. *Porcine Health Management.* 2017. 3:8 DOI. 10.1186/s40813-017-0053-6. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5382368>. Accessed January 1, 2021.

⁴Center for Disease Control and Prevention. CDC Report on Foodborne Disease Trends Shows Need for Better Prevention Strategies. <https://www.cdc.gov/foodsafety/newsletter/foodborne-disease-trends.html>. Accessed January 1, 2021.

⁵NOAH. Vaccination for animal health: an overview. <https://www.noah.co.uk/briefingdocument/vaccination-animal-health-overview/>. Accessed January 1, 2021.

⁶Health for Animals Global Animal Health Association. Three ways livestock farming is becoming more sustainable. <https://healthforanimals.org/resources-and-events/newsletter-repository/14-world-environment-day.html?g=44>. Accessed January 1, 2021.