

Understanding the impact of COVID-19 in pets and livestock

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A new paper identifies the critical need for research on the ability of the COVID-19 virus to infect certain animal species, the transmissibility of infection between humans and those animals, and the impact infection



could have on food security and the economy. The article, which focuses on companion animals, livestock and poultry, working animals such as military service dogs, and zoo species, is published in *Vector-Borne and Zoonotic Disease*.

The authors identify three urgent issues to consider: the potential for domesticated animals to transmit infection to humans and to contribute to community spread of disease; the impact on <u>food security</u>, economy, and trade if livestock and poultry are affected by coronavirus; and the effect on national security if the virus infects military service dogs and impairs their sense of smell, often used for tracking and to detect explosives and narcotics.

Tracey McNamara, DVM, DACVP, NAPf, Western University of Health Sciences (Pomona, CA), Juergen Richt, DVM Ph.D., Kansas State University (Manhattan, Kansas) and Larry Glickman, VMD, DrPH, Purdue University (West Lafayette, IN) coauthored the article entitled "A Critical Needs Assessment for Research in Companion Animals and Livestock Following the Pandemic of COVID-19 in Humans."

Stringent studies are needed, with robust data collection, and not just anecdotal evidence. Dogs, cats, lions, and tigers have all already tested positive for the COVID-19 virus. Studies are needed on the transmissibility of the virus between <u>animal species</u> and between animals and humans, on the best diagnostic tests available for companion animals and livestock, and on how COVID-19 is expressed in animals.

"The potential for zoonotic SARS-CoV-2 to infect <u>companion animals</u> has been a topic of much discussion," says Stephen Higgs, Ph.D., Editorin-Chief of Vector-Borne and Zoonotic Diseases and Director, Biosecurity Research Institute, Kansas State University, Manhattan, KS. "With over 3 million cases of COVID-19 and over a quarter of a million deaths worldwide so far since January, it is vital that we understand the



risks posed by domestic animals as a possible source for human infection. This review, brings all of what we know about SARS-CoV-2, pets, and other <u>animals</u> to our readership."

More information: Tracey McNamara et al, A Critical Needs Assessment for Research in Companion Animals and Livestock Following the Pandemic of COVID-19 in Humans, *Vector-Borne and Zoonotic Diseases* (2020). DOI: 10.1089/vbz.2020.2650

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