Impacts of Animal Feeding Operations on Wildlife Health

Lynn H. Creekmore[1], Mark J. Wolcott[2], and Mike D. Samuel[3]

According to recent estimates, there are more than 450,000 Animal Feeding Operations (AFO's) located throughout the United States. More than 6,600 of these operations have greater than 1,000 animals and are classified as Concentrated Animal Feeding Operations (CAFO's). The number of new CAFO's has increased dramatically and many are located in the western United States. Because water resources are usually limited, the waste storage-lagoons used by many CAFO's attract a number of wildlife species, including migratory birds. Inadequate or poor waste management resulting in runoff, spills, or discharges and land application of waste from these facilities has the potential to impact wetlands and waterways that serve as important wildlife habitat. As a result, CAFO's may facilitate direct and indirect wildlife-health impacts by providing potential sources of disease agents or by providing suitable environments for the transmission and occurrence of disease in wildlife. Diseases and agents of concern for migratory birds and other wildlife species include Salmonellosis (*Salmonella* spp.), avian cholera (*Pasteurella multocida*), avian botulism (*Clostridium botulinum*), algal biotoxins, and other diseases. However, other than reported fish kills, the possibility that CAFO's cause wildlife mortality or negatively affect wildlife health is largely speculative. In addition, changes in waste-management operations that can reduce potential health risks to wildlife have not been adequately studied. The National Wildlife Health Center has the specific knowledge, capabilities, and expertise in toxicology, microbiology, virology, parasitology, and wildlife-health evaluation to play a lead role in determining health risks to wildlife species that use CAFO lagoons or adjacent lands and wetlands and in developing waste-management practices to reduce potential risks.

---

[1]U.S. Geological Survey, 6006 Schroeder Road, Madison, WI 53711-6223 (lynn_creekmore@usgs.gov)

[2]U.S. Geological Survey, 6006 Schroeder Road, Madison, WI 53711-6223 (mark_wolcott@usgs.gov)

[3]U.S. Geological Survey, 6006 Schroeder Road, Madison, WI 53711-6223 (michael_samuel@usgs.gov)