

## Antibiotic-resistant DNA sequences found downwind of feedlots

There have been many concerns raised in recent years about the overuse of antibiotics on farms, but the effect such uses have on human health is not fully understood.

Researchers at Texas Tech University are now suggesting that airborne dust could be a pathway for antibiotic-resistance bacteria to travel from feedlots to human environments.

Scientists collected air samples upwind and downwind of 10 feedlots in the southern High Plains region and found greater amounts of bacteria, antibiotics and DNA sequences responsible for antibiotic resistance downwind of the feedlots compared to upwind.

The scientists couldn't tell if the amounts of materials they found were dangerous to human health but said their findings help characterize how pathogens could travel long distances to places inhabited by humans.

"Microbes are pretty promiscuous with their genetic information, and they share it across species fairly easily," said Philip Smith, an associate professor of terrestrial ecotoxicology at the university's Institute of Environmental and Human Health. "We know it's there. We know what causes it, but we don't have a really good handle on how it's transmitted and how it moves in the environment. This is an attempt to provide better clarity on that issue."

The study was [published online](#) in the National Institutes of Environmental Science's journal, *Environmental Health Perspectives*.

**Read full, original article:** [Research: Antibiotic-Resistant Bacteria May Travel Via Feedlot Dust](#)