



499 Research paper

Farmer perceptions of dairy farm antibiotic use and transport pathways as determinants of contaminant loads to the

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In **Significant Impact Groups:**

Prudent use AB \ Farmer Other

Species targeted: Dairy;

Age: Not stated;

Summary:

Agricultural antibiotic contamination into milk and beef products has been considered extensively, but antibiotic transport into soil and water environments is less regulated and studied. Farmer perceptions of these transport processes are critical to understanding how antibiotics reach soils and surface waters and what management strategies can be implemented to reduce environmental antibiotic loads. We have conducted semi-structured interviews with twenty-seven dairy farmers in central New York to understand farmer perceptions of environmental transport of antibiotics and decisions that reduce environmental antibiotic loads. Interviews were qualitatively analyzed and coded using thematic analysis. We found that farmers extensively considered transport of antibiotics into milk and beef, while consideration of antibiotic transport into manure was less common, and no farmers discussed antibiotic transport from carcasses into soil from on-farm animal mortality. Farmers highlighted decisions that reduce antibiotic environmental loads through disease prevention actions, usage of non-antibiotic treatments, and culturing bacterial samples before antibiotic treatment. Farmers did not cite reduction of environmental antibiotic loads as a driver of their waste management decisions. Farmers perceived antibiotic usage was already minimized on farms in the region, suggesting future environmental antibiotic contamination mitigation strategies should focus on waste management pathways.

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Where to find the original material:

<https://www.sciencedirect.com/science/article/pii/S0301479720318053?via%3Dihub>;

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