



BACTERIAL PATHOGENS IN RURAL WATER SUPPLIES IN SOUTHERN ALBERTA, CANADA

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ABSTRACT

Raw river and irrigation water in the Oldman River Basin in southern Alberta was tested for the presence of two bacterial pathogens, *Escherichia coli* O157:H7 and *Salmonella* spp., over the last 2 yr (2000-2001). The number of *E. coli* O157:H7 and *Salmonella* spp. isolated from raw water peaked during the summer months. While *E. coli* O157:H7 was only isolated from 11/802 (0.3%) of raw water samples over the entire sampling season in 2000 and from 16/806 (2.0%) of the samples in 2001, the pathogen was isolated one or more times from 10135 (28.5%) sampling sites in 2000 and from 13140 (32.5%) sampling sites in 2001. *Salmonella* was isolated from 441802 (5.5%) of raw water samples in 2000 and from 1221822 (14.9%) of the samples in 2007; the pathogen was isolated one or more times from 25135 (71.4%) sampling sites in 2000 and from 29140 (72.5%) sampling sites in 2001. Certain sites had multiple pathogen isolations in the same year and from year to year. *Salmonella* Rublislaw was the most common *Salmonella* serovar isolated in both years, accounting for 52.4% of isolates.

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