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Prevalence and antibiogram profiles of *Escherichia Coli* O157:H7 isolates recovered from three selected dairy farms in the Eastern Cape Province, South Africa

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*E*scherichia coli O157:H7 is one of the most imperious foodborne pathogens predisposed for a number of mortalities worldwide. To investigate the occurrence and antibiotics susceptibility of *Escherichia coli (E. coli)* from three selected commercial dairy farms in the Amathole District Municipality, Eastern Cape Province, South Africa, raw milk samples were collected from bulk storage tanks and swab samples from milking machines, cattle udder(s) and workers hands were also collected on a six-month sampling regime between June and November 2014. A standard culture-based method was used for the enumeration and isolation of *E. coli* O157:H7 using sorbitol MacConkey agar (supplemented with cefixime (50μg/L) and potassium tellurite (25mg/L). A serological confirmation of the presumptive *E. coli* O157:H7 isolates was conducted using the O157 latex agglutination test kit. A total of 252 *E. coli* O157:H7 isolates were further subjected to PCR detection of rfbE O157 and fliCH7 genes of which 27 (11%) of the isolates were confirmed positive *E. coli* O157:H7. Our finding reveals that of the 27 *E. coli* O157:H7 isolates from the dairy farms, the rate of resistance against penicillin was 85% and resistance against the other antibiotics follow the order: tetracycline (81%), erythromycin (70%), streptomycin (52%) and chloramphenicol (45%). We conclude that the dairy farms are potential reservoirs of *E. coli* O157:H7 serotype with multiple antibiotic resistance and consequently a concern to public and environmental health.

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