A Study on prevalence of *Escherichia Coli* O157 in healthy camels, cattle, sheep and goat from slaughterhouse in Al Ain, the United Arab Emirates

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Shiga toxin-producing *Escherichia coli* (STEC) are *E. coli* strains, which are associated with major food illness around the world. *E. coli* O157 has been widely reported as the most common STEC serogroup, which have emerged as important enteric pathogen since their identification. These bacterial strains are colonized in animals and are excreted through animal feces, which can contaminate the farm, water and foodprocessing environment. This study aims to evaluate the prevalence of *E. coli* serotype O157 in feces of cattle, camel, sheep and goat slaughtered in UAE for meat consumption. This study was carried out on fecal samples of healthy cattle (n=137), camel (n=140), sheep (n=141) and goat (n=150) during the period of September 2017 to August 2018. It was found that *E. coli* O157 was present in the fecal samples of goat, camel and cattle at 2%, 3.3%, and 16% respectively. Surprisingly, from the samples collected from sheep we failed to detect any *E. coli* O157 strains. We have used the traditional sensitive Immuno-magnetic separation technique (IMS) coupled with culture plating method for detecting the *E. coli* O157 pathogen. All isolates were confirmed as *E. coli* O157 using latex agglutination test (Oxoid) and the virulent genes were confirmed using multiplex PCR. These results comprise the first report on *E. coli* O157 prevalence in the UAE and prove the presence of these pathogens in the slaughtering animals, which could possibly contaminate the meat products. This study also indicated that there were no breed and seasonal effect on these strains in the UAE.

Speaker Biography

Dawood Sulaiman Al Ajmi has completed his PhD in animal production from the University of Queensland in 2008. He is currently working as an assistant professor in college of food and agriculture at arid land agriculture department, UAE University. His main area of research is in veterinary science and have publications in reputed journals.

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