

Session 10

Theatre 3

An on-farm intervention for VTEC 0157 in cattle: the story so far

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Escherichia coli O157 infection of cattle is of considerable public health concern. Infection in humans, by either foodborne or environmental routes, can cause a range of clinical disease from diarrhoea and stomach cramps to potentially fatal complications. Children and the elderly are particularly at risk. In Scotland, one in five herds of cattle is estimated to be infected and over 200 human cases are reported each year. Hygiene measures have been put in place by food producers and suppliers with a subsequent reduction in the number of foodborne cases. The focus of attention has, therefore, moved to control of environmental contamination and measures that could be applied if a group of animals is identified as infected. A small percentage of cattle intermittently shed high levels of the bacteria in their faeces when an area in the rectum is infected by *E. coli* O157. Experimentally it has been shown that the bacteria can be effectively controlled by washing out the rectum with a disinfectant solution. Can this technique be practically translated to the field? After promising results from a pilot study on two farms in the winter of 2008-2009, a larger scale study is in progress. Selected beef finishing units are screened via faecal pat samples to establish the baseline levels of *E. coli* O157. Cattle are individually sampled and allocated to a treatment or control group. Follow-up consists of monthly collection of faecal pat samples from the pens until the animals are sold. Eleven farms have been involved in the project so far. The third season of sampling is in progress (11/12) with completion due in Spring 2012. We present the outcome so far.