

# BACKWESTON Laboratory Complex

## NRL Functions

- **Salmonella**
- **Campylobacter**
- **Verotoxigenic E. coli**
- **Antimicrobial Resistance**
- **Parasites**
- **Listeria (DSL)**



# VTEC: Contact Dr Lourda Scott





Photo: Peter Barrow, 28th November 2005, Tel: 0872-559638



AGRICULTURE & FOOD  
AN ROINN TALMHAÍOCHTA AGUS BIA





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## Eurosurveillance, Volume 13, Issue 39, 25 September 2008

### Rapid communications

## INCREASE IN VTEC CASES IN THE SOUTH OF IRELAND: LINK TO PRIVATE WELLS?

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Citation style for this article: O'Sullivan MB, Garvey P, O'Riordan M, Coughlan H, McKeown P, Brennan A, McNamara E. Increase in VTEC cases in the south of Ireland: link to private wells?. *Euro Surveill.*

2008;13(39):pii=18991. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=18991>

Date of submission: 25 September 2008

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High levels of verotoxigenic *Escherichia coli* (VTEC) have been recorded to date in 2008 in the Republic of Ireland. One hundred and forty-eight VTEC cases were notified up to the end of August 2008 (Figure 1), compared to 70-90 confirmed cases reported in the equivalent time period in 2006 and 2007. Thirty three percent of cases notified in Ireland in 2008 indicated that their usual drinking water supply was a private well.

**Figure 1.** VTEC notifications in Ireland, January – August 2008, by Health Executive Service (HSE) area (n=148)



# *PREVALENCE AND EPIDEMIOLOGY OF EMERGENT STRAINS OF VEROCYTOTOXIGENIC E. COLI IN IRISH FOOD ANIMALS*



# *PREVALENCE AND EPIDEMIOLOGY OF EMERGENT STRAINS OF VEROCYTOTOXIGENIC E. COLI IN IRISH FOOD ANIMALS*

**Centre for Food Safety (UCD)**

**Ashtown Food Research Centre (Teagasc)**

**Moorepark Food Research Centre (Teagasc)**

**Veterinary Department, Cork County Council**

**Biosystems Engineering (UCD)**

**Funding agency: DAFF (FIRM)**



# VTEC Study – Objectives I

- Establish prevalence of emergent strains in Irish food animals
  - **O157 O145 O111 O103 O26**
- Cattle survey (n = 400)
  - Faeces, hides, dressed carcasses, lairage
  - enumeration of levels in positive samples
  - feed information into existing Risk Assessment model
- Sheep survey (n = 500)
  - Faeces, fleece, dressed carcasses, lairage
  - enumeration of levels in positive samples
  - Sheep survey (n = 500)
- Dairy herds (n = 60)
  - faeces
  - milk socks
  - Bulk tank milk



# NRL Survey of O157 in Cattle / Sheep at Slaughter

- One year study, started May 07
- From largest slaughterhouses
- Cattle and Sheep
  - 20 beef
  - 5 sheep





# Samples

- 400 sampling events
- Pool of 5 animals from same herd/flock
  - Rectal swabs
  - Carcas swabs pre-chilling
- Mince meat



# Methodology

- Detection of O157 based on ISO16654:2001 (confirmation by latex agglutination and indole reaction)
- Followed up by genotypic characterisation by PCR



