



***E. COLI* O104:H4 OUTBREAK CENTERED IN GERMANY
(May / June 2011)**

June 8, 2011

In light of the recent *E. Coli* outbreak in Europe, BioVir has received questions regarding detection of the specific O104:H4 strain using established Coliform methods for environmental samples. Specifically:

Standard Methods 9221: MTF total coliform test using LTB and BGB
Standard Methods 9221: MTF fecal coliform test using EC
Standard Methods 9221: MTF generic coliform test using EC with MUG
EPA SAP test for *E. Coli* O157:H7

To the best of BioVir's knowledge, *E. coli* will show up using 9221 methods for total and fecal coliforms, but this method will not specifically identify the organism as O104:H4. This pathogenic *E. coli* will not react with MUG (neither does the O157:H7). The method for O157:H7 is geared specifically for the O157:H7 strain. There are no commercial kits available for rapid ID of the O104:H4 strain.

Clinically, the presence of this organism is determined by testing for the toxin in stool samples. *E. coli* is then cultured from toxin positive stool samples and then blindly tested isolate-by-isolate for toxin production to confirm the strain type. There are reagents available at research institutes, but given the demand in Europe, sources at CA DPH tell us the stock is limited for Public Health agencies.