The forthcoming PTs organized by the EURL for *E. coli*

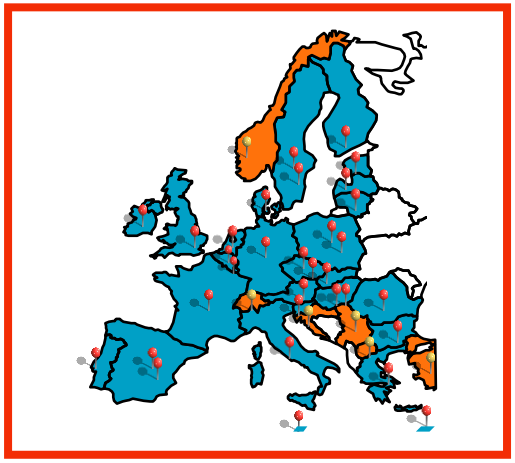
PT22: detection of STEC in spent irrigation water

PT23: identification and characterization of pathogenic *E. coli* strains

PT-PFGE7: PFGE typing of pathogenic *E. coli* strains

PT22

Detection of STEC in sprout irrigation water



PT19: Concluding remarks

PT19 was meant to expand the range of STEC serogroups by including a STEC non-O157 to further prepare NRLs in testing spent irrigation water samples.

The virulence genes of the contaminating STEC O145 strain were identified with satisfactory sensitivity in both high and low level of contamination

STEC O145 was isolated only by a few laboratories representing about 22 % of the participants

The results of the present PT underlined the difficulty in isolating the contaminant microorganism in such matrix when it does not belong to O157 serogroup

Adjustments to the procedure are needed

PT22: variations to the previously issued procedure in order to try and improve it

PT22 Samples pre-treatment procedure:

Two 200 ml irrigation water samples:

Centrifuge at 4,500 g for 30 minutes at + 4°C

Decant Supernatant

Suspend the pellet in 10X BPW of its volume/weight

Enrichment carried out over night at 41,5°C

DNA extraction from 1 ml and test for the presence of STEC

Real Time PCR for STEC
ISO/TS 13136 and adaptation for *E. coli* O104:H4

Negative → STOP

Positive → Go for isolation

PT22 aims at assessing the performance of the procedure

PT23

A set of six pathogenic *E. coli* strains

Identify DEC virulence genes (Real Time PCR-based procedures are available at the EURL website in the 'Laboratory methods' section)

Determine the serogroup, at least of the top-13
O157, O26, O111, O103, O145, O104, O91, O113, O121, O45, O55, O128, O146
(conventional and Real Time PCR-based procedures are available at the EURL website in the 'Laboratory methods' section)

Identify the stx genes subtypes (PCR-based procedures are available at the EURL website in the 'Laboratory methods' section)

You may provide the results requested by performing and analysing the WGS (indicate this when submitting the results)

Proficiency of the Laboratories will be evaluated

PT-PFGE7

- The same set of strains used for PT23 will be typed by PFGE