

Online Training at EURL-VTEC on the design and preparation of proficiency tests (PTs) on the detection of STEC in food matrices

For any additional information regarding the stage, please send an email to training.eurlvtec@iss.it

General objective:

To improve the capacity of the NRLs in planning and delivering PTs to the network of official laboratories involved in the control of food in the EU member states.

Requirements:

Terms of reference for PT organization: Reg. EC/625/2017 and the related ISO reference documents

- ISO/IEC 17043:2010 Conformity assessment - General requirements for proficiency testing.
- ISO/TS 22117:2010 Microbiology of food and animal feeding stuffs - Specific requirements and guidance for proficiency testing by inter-laboratory comparison.
- ISO/TS 19036:2006 Microbiology of food and animal feeding stuffs - Guidelines for the estimation of measurement uncertainty for quantitative determinations.

Work Program

Day 1 - MORNING SESSION (9:30-11:30)

- Presentation on the activities and procedures in place at the EURL, aim of the training.
- Illustration of the work-plan and the protocols used during the stage. This part will include the PT planning: Identification of the objectives, selection of the analyte (STEC strains) and the matrix, laboratory procedures.
- Open discussion
- Checklist of the materials needed for the hands-on sessions.

Day 1 - AFTERNOON SESSION (14:00-16:00)

- Discussion and streaming video on the practical aspects, tips and tricks by the EURL tutors
- Question time
- The trainees will be appointed of laboratory tasks to be carried out autonomously. The results will be discussed the next day.
- End of day one.

Day 2 - AFTERNOON SESSION (14:00-16:00)

- Presentation of the results of the tasks carried out by the trainees, discussion of the problems encountered and problem solving with the EURL-VTEC tutors
- Open discussion.

- Discussion and streaming video on the choice of matrix and pre-testing: evaluation of the endogenous microflora, assessment of the absence of the target analyte in the selected matrix. Practical aspects and tips and tricks by the EURL tutors
- Question time
- The trainees will be appointed of laboratory tasks to be carried out autonomously. The results will be discussed the next day.
- End of day two.

Day 3 - AFTERNOON SESSION (14:00-16:00)

- Presentation of the results of the tasks carried out by the trainees, discussion of the problems encountered and problem solving with the EURL-VTEC tutors
- Open discussion.
- Presentation and streaming video of the preparation of the STEC cultures for sample spiking, spiking of the samples with appropriate dilutions for LOD determination, preparation of the enrichment cultures of the spiked samples.
- The trainees will be appointed of laboratory tasks to be carried out autonomously. The results will be discussed the next day.
- End of day three.

Day 4 – AFTERNOON SESSION (14:00-16:00)

- Presentation of the results of the tasks carried out by the trainees, discussion of the problems encountered and problem solving with the EURL-VTEC tutors
- Presentation of the procedure for testing the enrichment cultures for the target genes by Real Time PCR (ISO TS 13136:2012) and LOD determination, plating of the PCR-positive enrichment cultures for STEC isolation.
- Presentations of the procedure for the stability and the homogeneity tests, according to ISO/IEC 17043:2010
- The trainees will be appointed of laboratory tasks to be carried out autonomously. The results will be discussed the next day.
- End of day four.

Day 5 – AFTERNOON SESSION (14:00-16:00)

- Presentation of the results of the tasks carried out by the trainees, discussion of the problems encountered and problem solving with the EURL-VTEC tutors
- General discussion on the activities carried out.
- Trainee satisfaction survey
- End of day five.