Talk

Transition to the reference standard UNE-EN ISO 6579-1: 2017.

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ABSTRACT

Motivation: Nowadays the determination of the food quality is an indispensable requirement at global level. This work focus on how the presence of microorganisms in food can be detected and verify that they ensure the minimum requirements stablished by the law. To acomplish that, government entities like ENAC (Entidad Nacional de Acreditación y Certificados) promulgate standards developed by the ISO (International Organization for Standarization).

One of the most important microorganism related with foodborne diseases is Salmonella. This work aims to adapt the laboratory protocol for the detection of the former microorganism to the new standards.

Methods: According to the RD 2073/2005, laboratories must adapt the research assay UNE-EN ISO 6579:2003 ,which was modified in 2017, to accomplish the reference standard for the detection of Salmonella. Those changes are not significant, as result it is not necessary to make a complete validation of our protocol; that will make the transition to the new method much easier.

The schedule for this transition will be: (1) Find out the changes between the older and newer standard method, such as culture mediums, incubate periods, and changes at bioquimical and serological tests. (2) Define the confirmation test. (3) Conducting verification tests of the method in parallel with the procedure based on the old standard. (4) Perform an evaluation based on the results of the test. (5) Modification of the internal test procedure.

Results and conclusion: Even though a validation has not been carried out, the analysis of a wide variety of foods for the detection of Salmonella has been performed throughout the internship. These verification tests have been carried out according to the old ISO using reference strains such as S. thyphimurium (ATCC 14028) and S. enteritidis (ATCC 13076). The procedure consists of inoculating a food sample with the target sample at a concentration of the microorganism close to the limit of detection obtained by the laboratory in its validation, being this limit below 10 CFU / 25g. Currently the laboratory is in phase no. 1. Our expectation is adapt the procedure to the new ISO before the end of the course.

REFERENCES

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It is delivered with the approval of the academic tutor Fernando Govantes Romero.