
Patrizia Rossi  
European Union Reference Laboratory for Parasites  
Istituto Superiore di Sanità, Rome, Italy


On September 15th, 2015, the “ISO 18743:2015, Microbiology of the food chain – Detection of *Trichinella* larvae in meat by artificial digestion method” was published.

The quite simultaneous publication of the Commission Regulation (2015) (from now only Regulation) and of the ISO 18743:2015 standard (from now only standard), created some concerns on which method to apply in the EU laboratories performing official controls for *Trichinella* testing.

**BUT WHICH ARE THE DIFFERENCES BETWEEN THE TWO DOCUMENTS?**

**THE EU REGULATION 2015/1375**

The Regulation establishes obligations of competent authorities and of food business operators involved in:

- sampling of carcasses
- detection methods
- training of personnel performing the test
- other requirements

The Regulation in Annex 1 describes the magnetic stirrer method for pooled sample digestion, considered as the reference method for *Trichinella* detection in meat of susceptible animals for human consumption.

The pooled-sample digestion method is recommended for routine use, and is considered satisfactory if the limit of detection of one larva per gram of meat is achieved.

Additional methods, are considered as equivalent methods.
### Comparison of ISO 18743:2015 and Regulation (EU) 2015/1375

<table>
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<th>CLAUSE</th>
<th>ISO 18743</th>
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<td><strong>Scope</strong></td>
<td>The artificial digestion/magnetic stirrer method is considered to be the standard method because it has proven to give the most reliable results in validation studies.</td>
<td>In clause (17) it is stated that: The magnetic stirrer method for pooled sample digestion is recommended as a reliable method for routine use.</td>
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**Normative references:** ICT Guidelines and OIE Manual of Diagnostic Tests and Vaccines for terrestrial animals are referred as indispensable for the correct application of the standard.

**Terms and definitions:** Definitions on *Trichinella muscle larva, digestion assay and larvae per gram* are given.

| **Outline of the principle** | This clause of the Standard indicates the basic principles and the properties relied upon the essential steps in the method used, the reasons for using one particular procedure, providing also advice on how to overcome some Critical Control Points (CCPs). Key elements determining the test performance are discussed, and indications on how to achieve qualification of the analysis are given. In accordance with guidance from the International Commission on Trichinellosis. |

### General considerations are given on Trichinella

- **Trichinella** is considered to be the standard method because it has proven to give the most reliable results in validation studies.

- **Article 2.** Obligations of competent authorities and of food business operators:

  - **Annex A:** Obligations of competent authorities and food business operators.

  - **Annex B:** The digestion procedure the same as in the Standard: The digestion procedure is the same as in the Standard.

  - **Annex C:** The processing of samples before testing are given (CCPs). Heating tests, and the following: Heating and chemical disinfection washing in warm water (65 to 90°C).
The ISO 18743 standard: advantages

- the principles and the properties of the essential steps of the method are described;
- advices on how to deal with the CCPs of the procedure are provided;
- suggestions on how to overcome the issues that have to be afforded by a laboratory applying the method in a quality assurance system are given;
- the steps of the procedure to be modified when applied to frozen samples are specified (Annex B);
- images of Trichinella muscle larvae, as well as other nematodes and artefacts recovered after digestion, are shown (Annex C).

Since the artificial digestion pooled sample method is a very robust method, the small differences between the standard and the Regulation do not affect the test performance. However, the CCPs must be taken into account by the analysts, and the Standard is provided for this purpose.

Standards represent global consensus on a solution to a particular issue, they are a form to self-regulation since interested parties come together and agree voluntarily.

Legislation is established by public authorities and is mandatory, setting requirements to protect public interest.

BUT

Policy and legislation can be supported by international standards (ex. Commission Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs), in particular for those countries lacking expertise and/or resources and legislation on specific issues, such as for food safety and trade purposes, thus improving access to global markets.

It is to be hoped that in the future, a better coordination between EU legislators and standardization bodies will be achieved.

Thank you for your attention!