

Final report PT-01: Td 2/2024

PT-01: Artificial digestion to detect *Trichinella* larvae in meat samples according to the Regulation EU 2020/1478 and Annex III Regulation EU 2015/1375

Design

Purpose	Evaluation of laboratories competence to detect <i>Trichinella</i> spp. larvae in meat	
Scheme type	Single, simultaneous	
Participants	Public and private, national and international laboratories	
N. of participants	Depending on requests	
Method	ISO 18743:2015/Amd.1:2023 and Reg EU 2015/1375 (Ann III)	
PT items	Matrix	Pork/horse meat
	Item	<i>Trichinella</i> live larvae
	N. of samples	Three for each participant
	Distribution	Immediate shipment after preparation
Subcontracted activities	NA	
Results evaluation	Qualitative, as stated in the ISO 18743:2015/Amd.1:2023	

Implementation

N. of participants	34	PT items	Pork	99
Public laboratories	34		Horse meat	3
Private laboratories	0		PT panel composition	2 positive samples spiked with 4 larvae and 1 negative
			Shipping	DHL
Shipping date	March 11, 2024 April 16, 2024 (shipping to laboratory TLE32)			

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Analysis of the results

As stated in the ISO 18743:2015, cited in the Regulation EU 2020/1478, and in the Amd.1:2023 of the cited ISO, laying down specific rules on official controls for *Trichinella* in meat, the results of artificial digestion methods have to be expressed only qualitatively (i.e. as positive if *Trichinella* spp. larvae are found in the sample, or negative if no larvae are present in the sample). Then the PT is considered passed if the participant correctly identified all positive and negative samples.

Laboratory code	Item type	N° of "false positive"	N° of "false negative"	Final evaluation
NRL50	100g pork	0	0	positive
NRL51	100g pork	0	0	positive
NRL52	100g pork	0	0	positive
NRL53	100g pork	0	0	positive
NRL55	100g pork	0	0	positive
NRL56	100g pork	0	0	positive
NRL57	100g pork	0	0	positive
NRL58	100g pork	0	0	positive
NRL59	100g pork	0	0	positive
NRL60	100g pork	0	0	positive
NRL61	100g pork	0	0	positive
NRL62	100g pork	0	0	positive
NRL63	100g pork	0	0	positive
NRL64	100g pork	0	0	positive
NRL65	35g pork	0	0	positive
NRL66	100g pork	0	0	positive
NRL67	100g pork	0	0	positive
NRL68	100g pork	0	0	positive
NRL69	100g pork	0	0	positive
NRL70	100g pork	0	0	positive
NRL71	100g pork	0	0	positive
NRL72	100g pork	0	0	positive
NRL73	100g pork	0	0	positive
NRL74	100g pork	0	0	positive
NRL75	100g pork	0	0	positive
NRL76	100g pork	0	0	positive
NRL77	35g pork	0	0	positive
NRL78	100g pork	0	0	positive
NRL79	100g pork	0	0	positive
NRL80	100g horse	0	0	positive
NRL82	100g pork	0	0	positive
NRL83	100g pork	0	0	positive
NRL84	100g pork	0	0	positive
TLE32	100g pork	0	1	negative

Legenda:

- Laboratories that failed the PT are highlighted in red.

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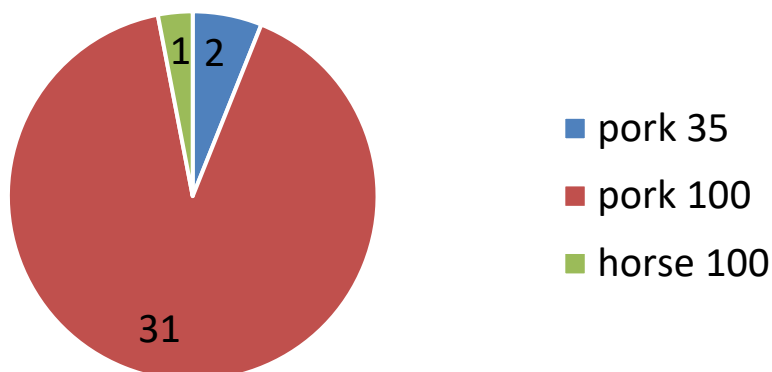


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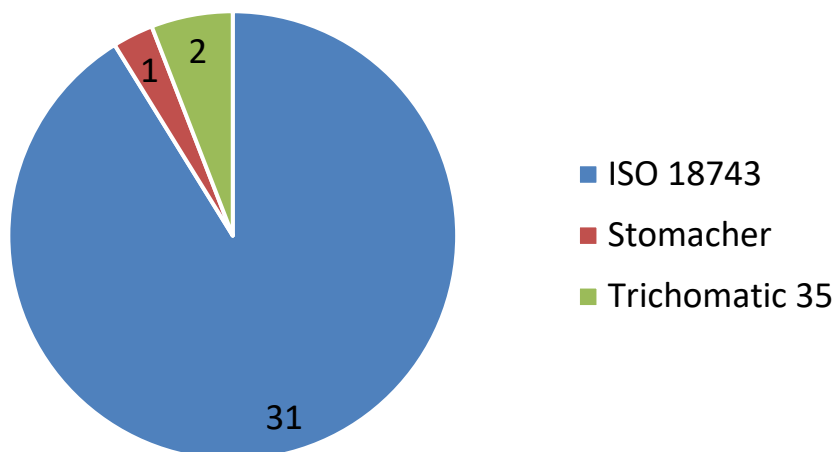
Summary of results:

Number of participant laboratories	34
Number of participants that passed the PT	33
Number of participants that failed the PT	1

Sample type



Method used



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Overtime comparison of results

Laboratory code	2019	2020	2021	2022	2023	2024
NRL50	positive	positive	positive	positive	positive	positive
NRL51	positive	positive	positive	positive	positive	positive
NRL52	positive	positive	positive	positive	positive	positive
NRL53	positive	positive	positive	positive	positive	positive
NRL55	positive	positive	positive	positive	positive	positive
NRL56	positive	positive	positive	positive	positive	positive
NRL57	positive	positive	positive	positive	positive	positive
NRL58	positive	positive	positive	positive	positive	positive
NRL59	positive	positive	positive	positive	positive	positive
NRL60	positive	positive	positive	positive	positive	positive
NRL61	positive	positive	positive	positive	positive	positive
NRL62	positive	positive	positive	positive	positive	positive
NRL63	positive	-	positive	positive	positive	positive
NRL64	positive	positive	positive	positive	positive	positive
NRL65	positive	positive	positive	positive	positive	positive
NRL66	positive	positive	positive	positive	positive	positive
NRL67	positive	positive	positive	positive	positive	positive
NRL68	positive	positive	positive	positive	positive	positive
NRL69	positive	positive	positive	positive	positive	positive
NRL70	positive	positive	positive	positive	positive	positive
NRL71	positive	positive	positive	positive	positive	positive
NRL72	positive	positive	positive	positive	positive	positive
NRL73	positive	positive	positive	positive	positive	positive
NRL74	positive	positive	positive	positive	positive	positive
NRL75	negative	positive	positive	positive	positive	positive
NRL76	positive	-	positive	nr	positive	positive
NRL77	positive	positive	positive	positive	positive	positive
NRL78	positive	positive	positive	positive	positive	positive
NRL79	positive	positive	positive	positive	positive	positive
NRL80	positive	positive	positive	positive	positive	positive
NRL82	positive	positive	negative	positive	positive	positive
NRL83	positive	-	positive	positive	positive	positive
NRL84	-	-	-	-	-	positive
TLE32	-	-	-	-	positive	negative

Comments

All but one participating laboratories successfully passed the PT demonstrating their competence in detecting *Trichinella* larvae in meat samples. The laboratory that failed has been invited to investigate the causes of the failure and to implement the appropriate corrective actions. In case the lab was interested in repeating the test, the shipment of a new sample panel (EQA scheme) will be arranged.

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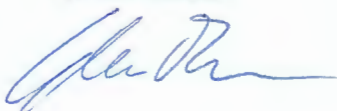


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Date 16/04/2024

Written and elaborated by
PTP person in charge

Dr. G. Marucci



Verified and issued by
The Director

Dr. A. Casulli



Notes:

1. To guarantee confidentiality, participant laboratories are identified by alphanumeric codes. PT participant identity is kept confidential and bound by professional secrecy. The PTP reserves itself the right to provide the laboratory PT result to the competent authority on request.
2. The organizer designates a qualified company for the transport and delivery of PT items.
3. Each participating laboratory receives a PT panel according to the PT scheme. Each PT item consists of minced pork or horse meat spiked or not with live *Trichinella spiralis* muscle larvae. The homogeneity of PT items is ensured by an accurate control of the number of larvae spiked into each sample (item), made by two operators using a stereo microscope. PT items are stable for 5 days from the date of preparation (corresponding to the shipping date), provided that they are maintained in suitable conditions.
4. At the beginning of each year, the organizer draws up a PT program and makes it known by publishing it on the EURLP website (for national, international, public and private laboratories) or by email (NRLs).
5. The final report issue of each PT round shows the PT program implementation.

End of the report

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