

XIX Workshop of National Reference Laboratories for Parasites
Istituto Superiore di Sanità
6-7 November 2024

Proficiency testing on artificial digestion to detect
Trichinella larvae in meat samples according to
ISO 18743:2015 or Annex III Reg UE 2015/1375

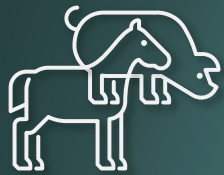
☀ Irene Tartarelli ☀

Purpose and execution

- ☀ Test the capacity of NRLs to identify *Trichinella* muscle larvae in meat by applying ISO 18743:2015 or equivalent methods listed in reg. 2015/1375 (Annex III)
- ☀ Correct identification of positive and negative samples in a panel composed of three meatballs



Test material



Meat type:

- pork meat
- horse meat

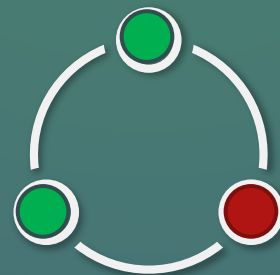


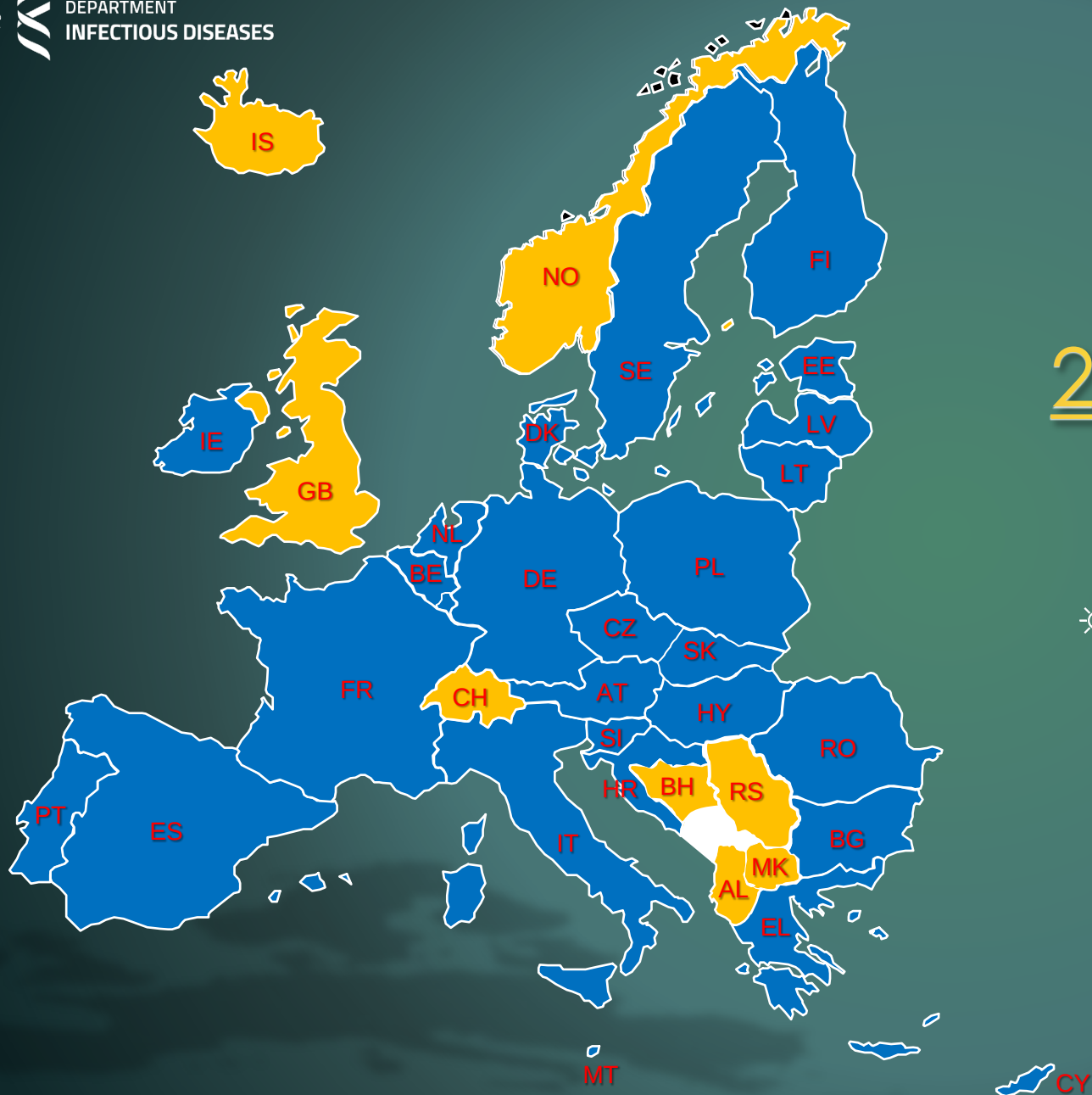
Samples weight:

- 100g
- 35g

2024 PT panel composition:

- 1 negative sample
- 2 positive samples
(4 *T. spiralis* larvae/sample)



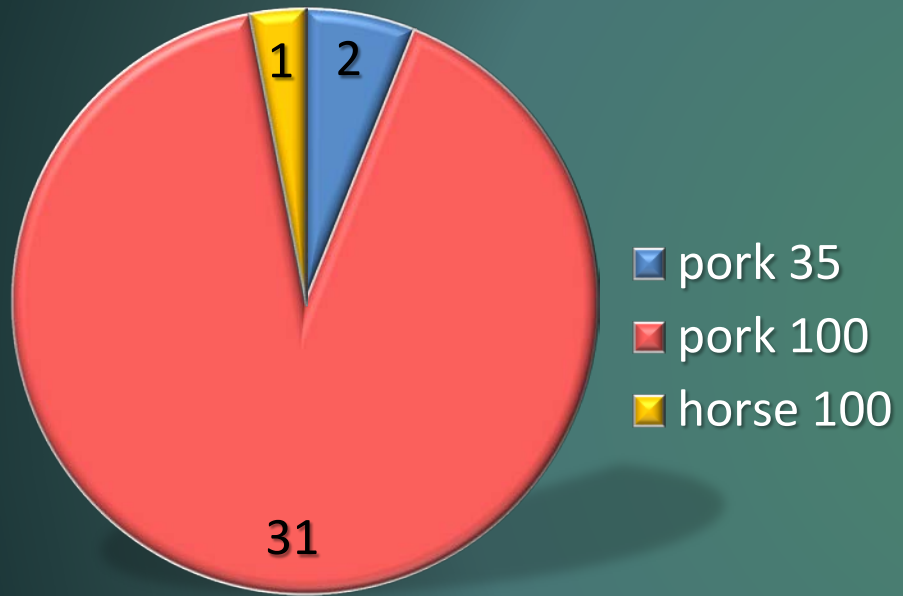


2024 Participants

☀ **34 NRLs** (including 8 outside EU) ☀

Samples and methods

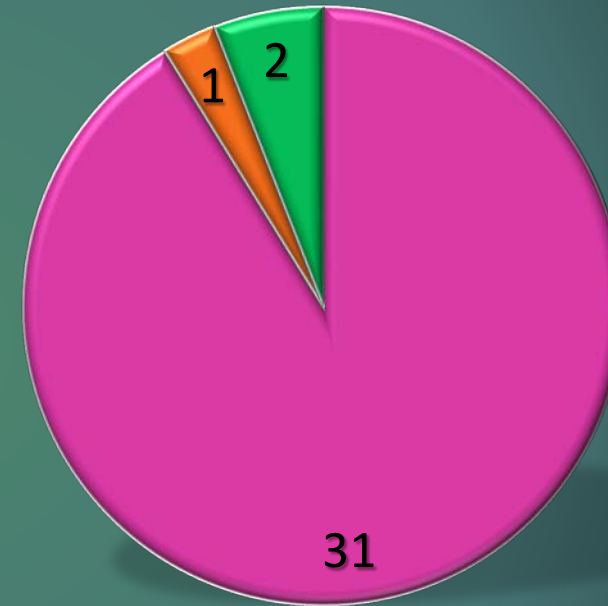
Sample type:



Samples and methods



Method used:



- ISO 18743
- Stomacher
- Trichomatic 35

Results Qualitative evaluation



Lab code	False negatives	False positives	PT final evaluation
NRL50	0	0	positive
NRL51	0	0	positive
NRL52	0	0	positive
NRL53	0	0	positive
NRL55	0	0	positive
NRL56	0	0	positive
NRL57	0	0	positive
NRL58	0	0	positive
NRL59	0	0	positive
NRL60	0	0	positive
NRL61	0	0	positive
NRL62	0	0	positive
NRL63	0	0	positive
NRL64	0	0	positive
NRL65	0	0	positive
NRL66	0	0	positive
NRL67	0	0	positive

Lab code	False negatives	False positives	PT final evaluation
NRL68	0	0	positive
NRL69	0	0	positive
NRL70	0	0	positive
NRL71	0	0	positive
NRL72	0	0	positive
NRL73	0	0	positive
NRL74	0	0	positive
NRL75	0	0	positive
NRL76	0	0	positive
NRL77	0	0	positive
NRL78	0	0	positive
NRL79	0	0	positive
NRL80	0	0	positive
NRL82	0	0	positive
NRL83	0	0	positive
NRL84	0	0	positive
TLE32	0	1	negative

Overtime comparison

Last five years

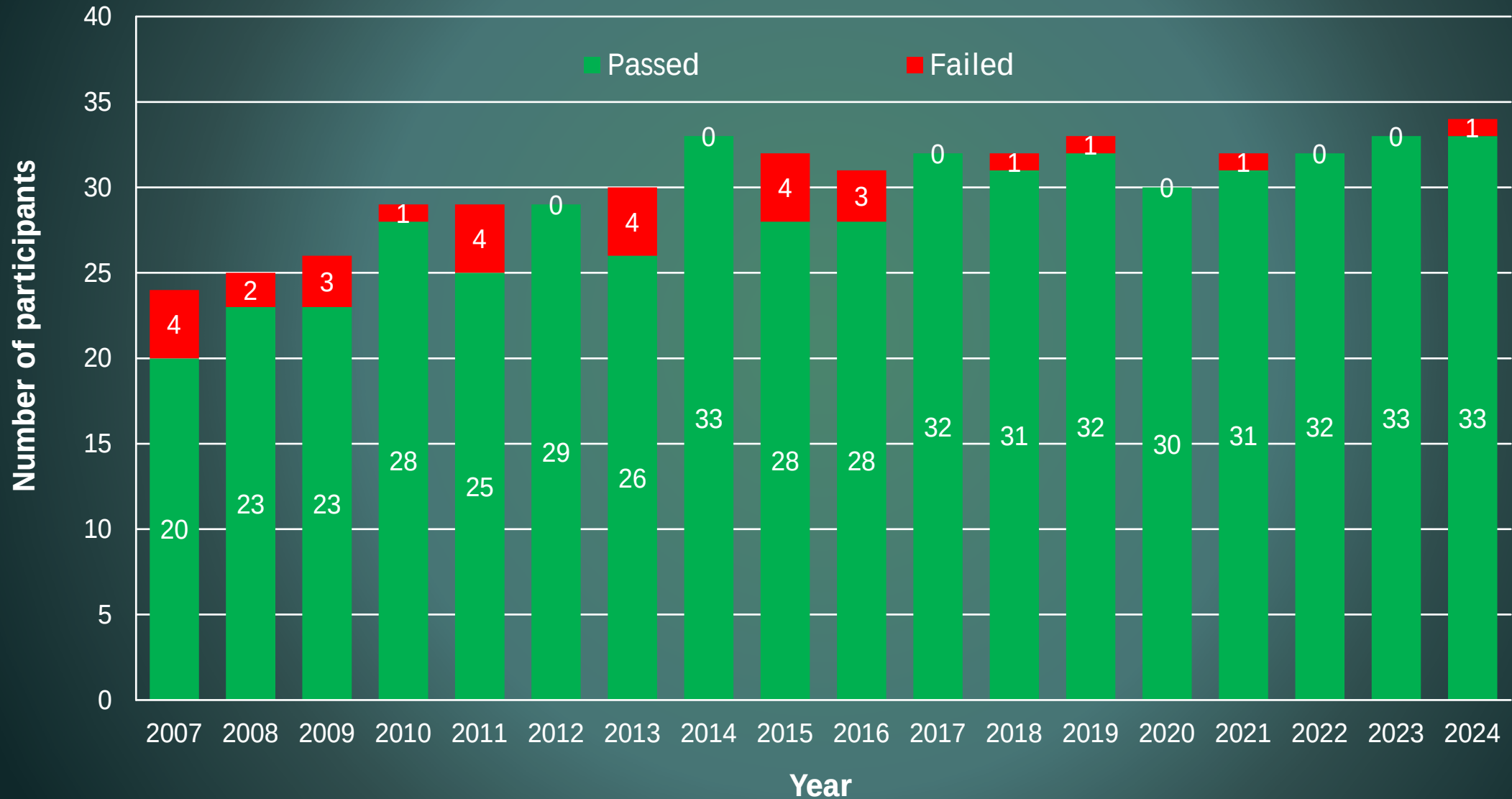


Laboratory code		50	51	52	53	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	82	83	84	TLE32
Year	2020	P	P	P	P	P	P	P	P	P	P	P	P	-	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	-	-
	2021	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	F	P	-	-
	2022	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	NA	P	P	P	P	P	P	P	-	-
	2023	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	-	P
	2024	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	F

P = passed F = failed NA = Not Applicable - = No participation

Sporadic failures involving no more than one participant

Overtime comparison

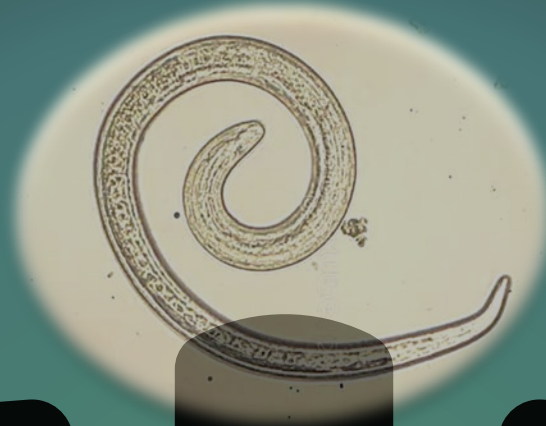


Conclusion



Almost all the participating laboratories demonstrated 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.



*Thanks for
the attention!*

☼ Irene Tartarelli ☼