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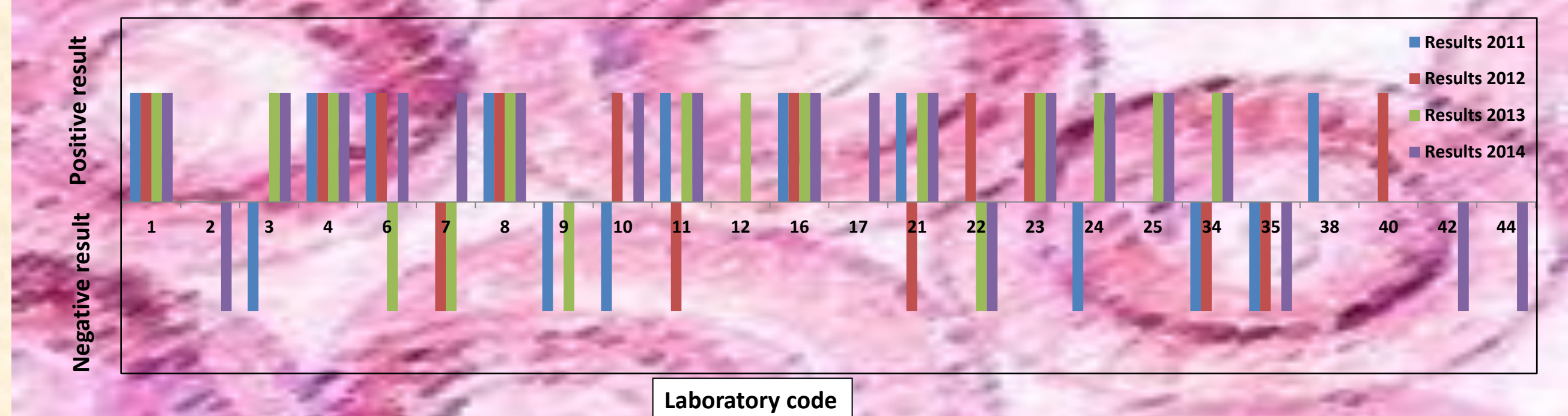
Introduction

One of the core duties of the European Union Reference Laboratories for Feed and Food is to organize proficiency testing (PT), as stated in the Regulation (EC) No 882/2004 of the European Parliament and the Council. The European Union Reference Laboratory for Parasites (EURLP) organizes PT for the National Reference Laboratories for Parasites (NRLs) of the Member States and for Italian laboratories performing official controls, in order to assess their competence and to improve laboratory performance. We report the results of 8 years activity on PT, showing the achievement of these goals.

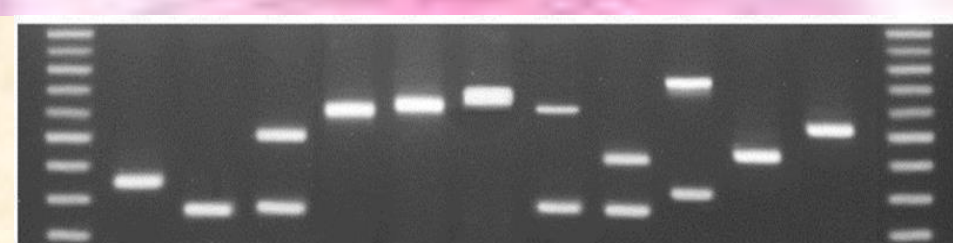
2006-2014: 40 PTs organized

PT on “*Trichinella* larvae identification at species level by a molecular method”

Purpose	Evaluation of laboratories in charge for official control on food	
Scheme type	Single	
Participants	NRLs of EU	
N. of participants	Depending on request	
Method	Not regulated	
Test method	Chosen by the participant (EURLP PCR protocol, other PCR protocols and sequencing)	
PT items	Matrix	not applicable
	Item	<i>Trichinella</i> spp. larvae in 96% ethanol
	N. of samples	4 (10 larvae/each) or 12 (1 larva/each) 1.5 ml vials for each participant
	Distribution	Immediate shipment after preparation
Results evaluation	Qualitative	

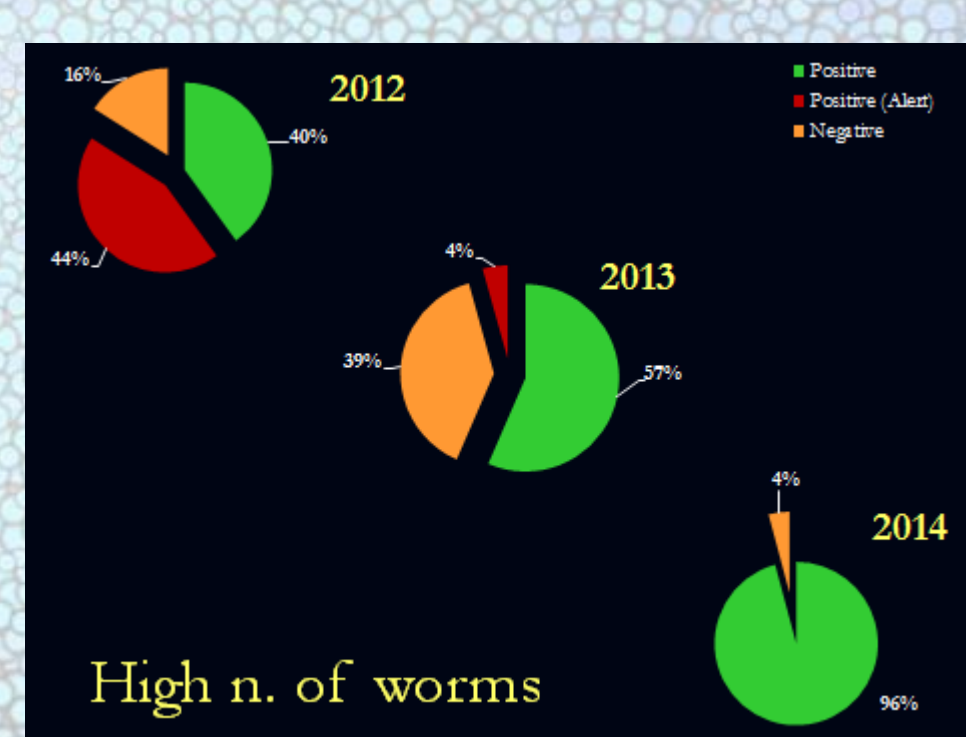
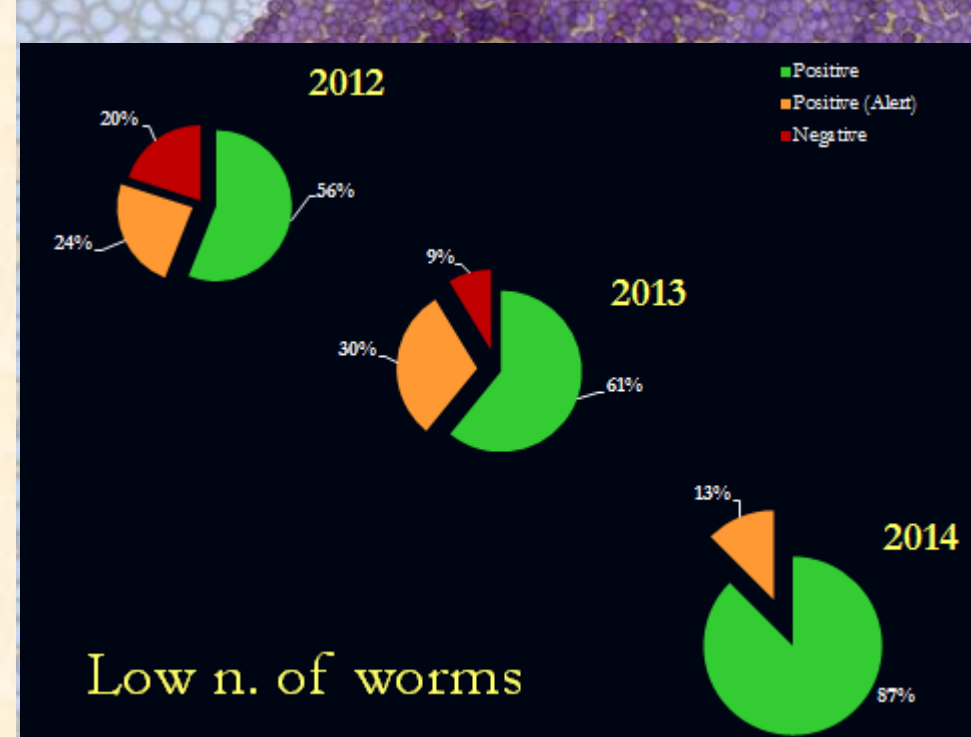


The wrong identifications can be ascribed to the use of not suitable diagnostic protocol or tools (reagents and apparatuses) or/and lack of experience in multiplex PCR band pattern analysis



PT on “Detection of *Echinococcus* sp. worms in the intestinal mucosa of the definitive host”

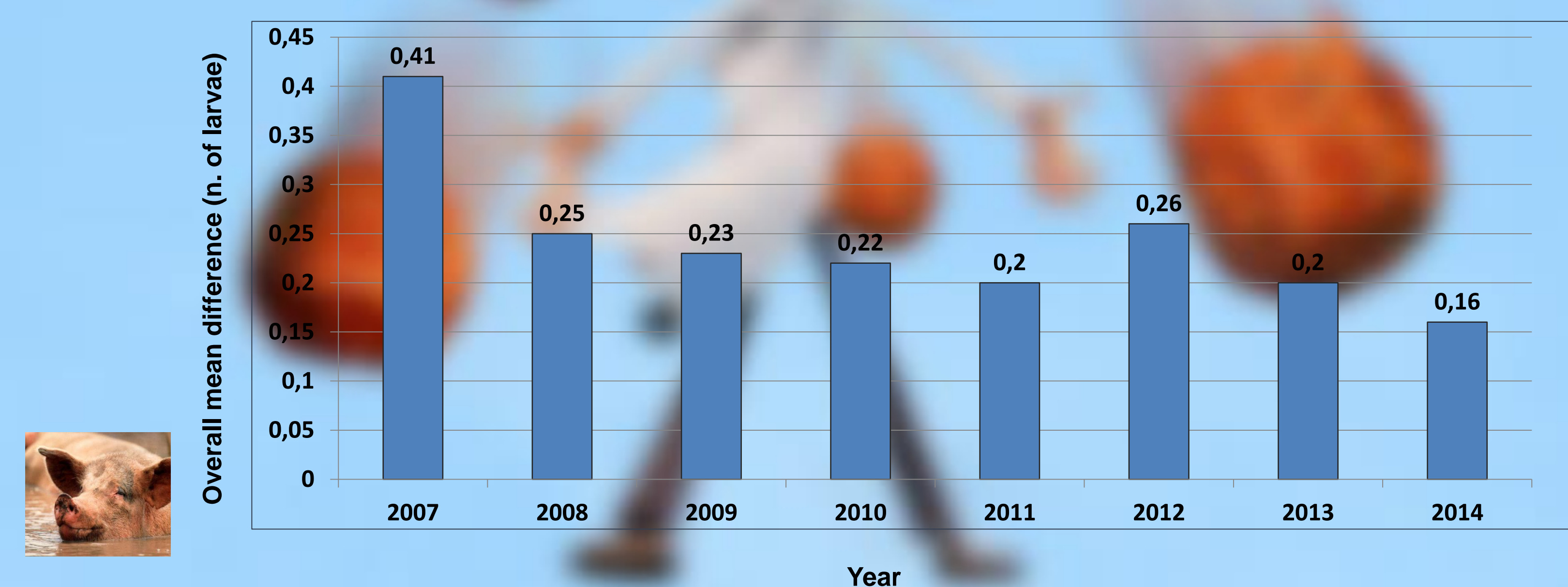
Purpose	Correctly identify the presence of adult worms of <i>Echinococcus</i> sp. in a matrix made by intestinal mucosa.	
Scheme type	Single	
Participants	NRLs of EU	
N. of participants	Depending on request	
Method	Not regulated	
Test method	Sedimentation and counting technique (SCT)	
PT items	Matrix	intestinal mucosa
	Item	adult worms of <i>Echinococcus</i> spp.
	N. of samples	3 for each participant
	Distribution	Immediate shipment after preparation
Results evaluation	Qualitative and quantitative	



The comparison of the results during last 3 years demonstrates that detection capabilities of the personnel is increasing over the time

PT on “Digestion method to detect *Trichinella* larvae in meat samples according to the EU directive 2075/2005”

Purpose	Evaluation of NRLs implementing national controls on labs in charge to detect <i>Trichinella</i> spp. larvae in meat	
Scheme type	Single, simultaneous	
Participants	NRLs of EU	
Method	Regulation CE 2075:2005 (annex 1)	
Test method	Artificial digestion/magnetic stirrer method	
PT items	Matrix	Pork/horse meat balls
	Item	<i>Trichinella</i> live larvae
	Panel	3 samples for each participant
	Distribution	Immediate shipment after preparation
Results evaluation	Qualitative and quantitative	



The overall mean difference value obtained in 2014 is lower than that obtained in the previous year witnessing an increased accuracy in the analysis.

PT on “Detection of *Anisakis* spp. L3 larvae in fish fillets”

Purpose	Evaluation of laboratories in charge for official control on food	
Scheme type	Single	
Participants	NRLs of EU	
N. of participants	Depending on request	
Method	Not regulated	
Test method	Chosen by the participant	
PT items	Matrix	fresh water farmed fish fillet
	Item	<i>Anisakidae</i> live larvae
	N. of samples	3 for each participant
	Distribution	Immediate shipment after preparation
Results evaluation	Qualitative	

Preparation of samples
Fillets of rainbow trout (*Oncorhynchus mykiss irideus*), farmed in Italy, were freshly prepared and used to guarantee a matrix free of *Anisakidae*.

Test methods
Candling
Artificial digestion
Compressorium
UV examination after freezing

Fillets sealed in plastic bag under vacuum and delivered refrigerated

Trend on *Anisakidae* identification PT

The PT results obtained during eight years of EURLP activity, clearly show how useful they were to improve NRL performance on different methods to detect and identify foodborne parasites.