

## TRICHIMED - Task 3

# Harmonisation of veterinary control methods

Ring trial on comparison of artificial digestion methods for detection of encapsulated *Trichinella spiralis* larvae in porkmeat

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# Task 3 objectives

1. Performance of intra-laboratory test comparison with the 3 digestion methods

with encapsulated  
*Trichinella* species

with non-encapsulated  
*Trichinella* species

2. Optimisation of a standard method

3. Design and performance of ring trial using the defined gold standard method

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*T. spiralis*



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with non-encapsulated  
*Trichinella* species



*T. pseudospiralis*

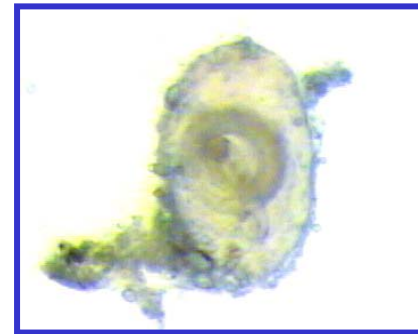
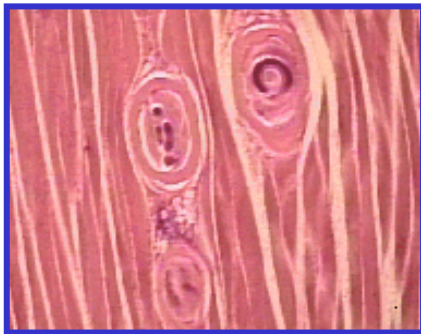


Risiken erkennen – Gesundheit schützen

# Method

## 1. *T. spiralis* Proficiency samples preparation

Isolation of *Trichinella spiralis* capsules with an incomplete artificial digestion



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### Use of Proficiency Samples to Assess Diagnostic Laboratories in France Performing a *Trichinella* Digestion Assay

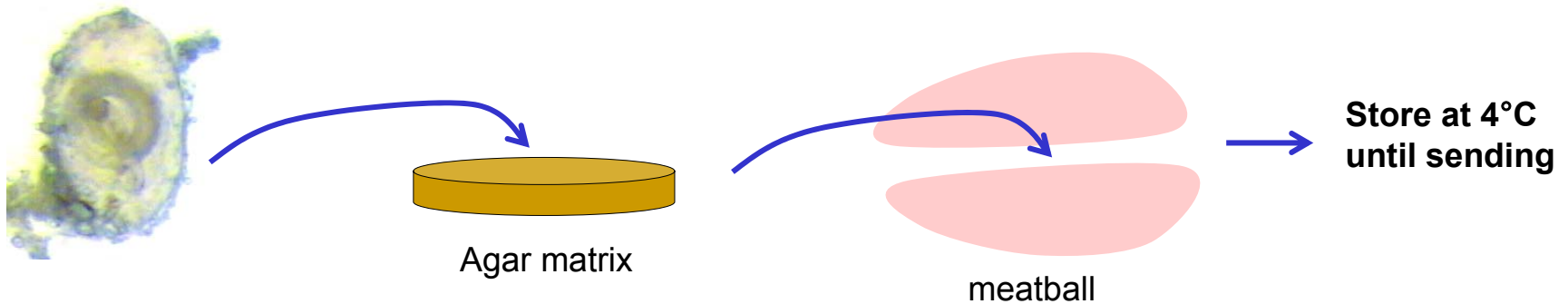
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# Method

## 1. Proficiency samples preparation

Isolation of *Trichinella spiralis* capsules with an incomplete artificial digestion



Size of proficiency samples: 1, 2, 3, 7, 8 or 9 capsules

**Direct evaluation of sensitivity:**

number ML identified / number capsules x100

# Method

## 2. Sample distribution and method of analysis

Method			
Laboratories	Magnetic stirrer	Stomacher	Trichomatic
A	20	0	0
B	20	0	0
C	20	20	0
D	0	0	20
E	0	0	20

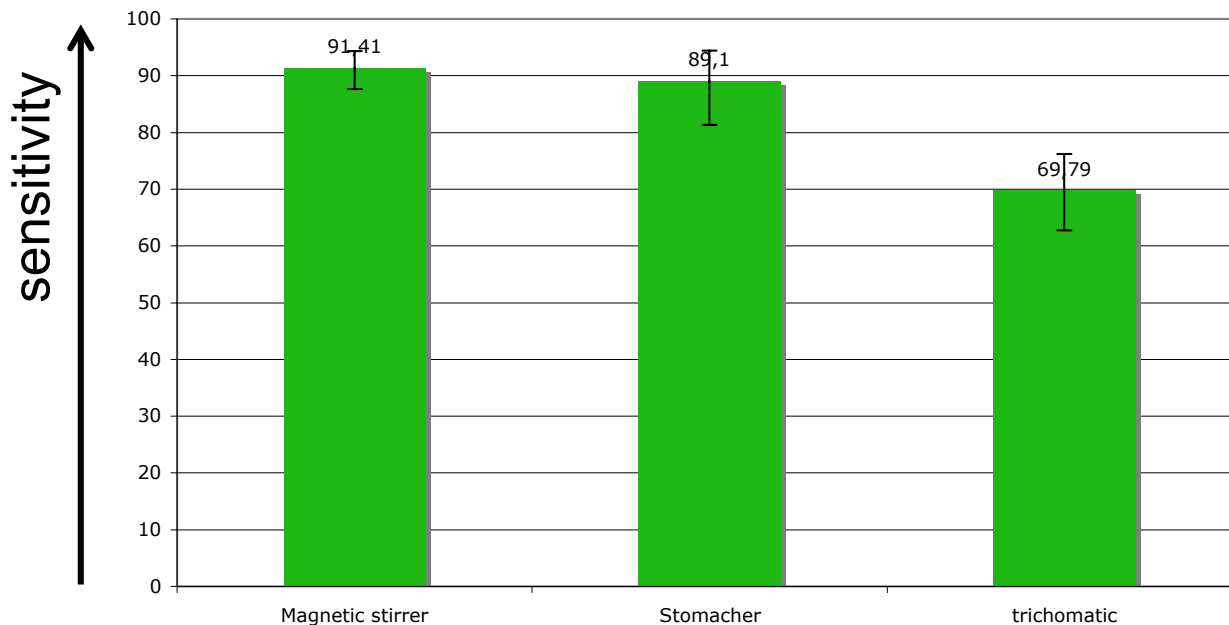
# Results

Sample analysed and method of analysis

Laboratories	Method		
	Magnetic stirrer	Stomacher	Trichomatic
A	20	0	0
B	20	0	0
C	20	20	0
D	0	0	20
E	0	0	18

# Results

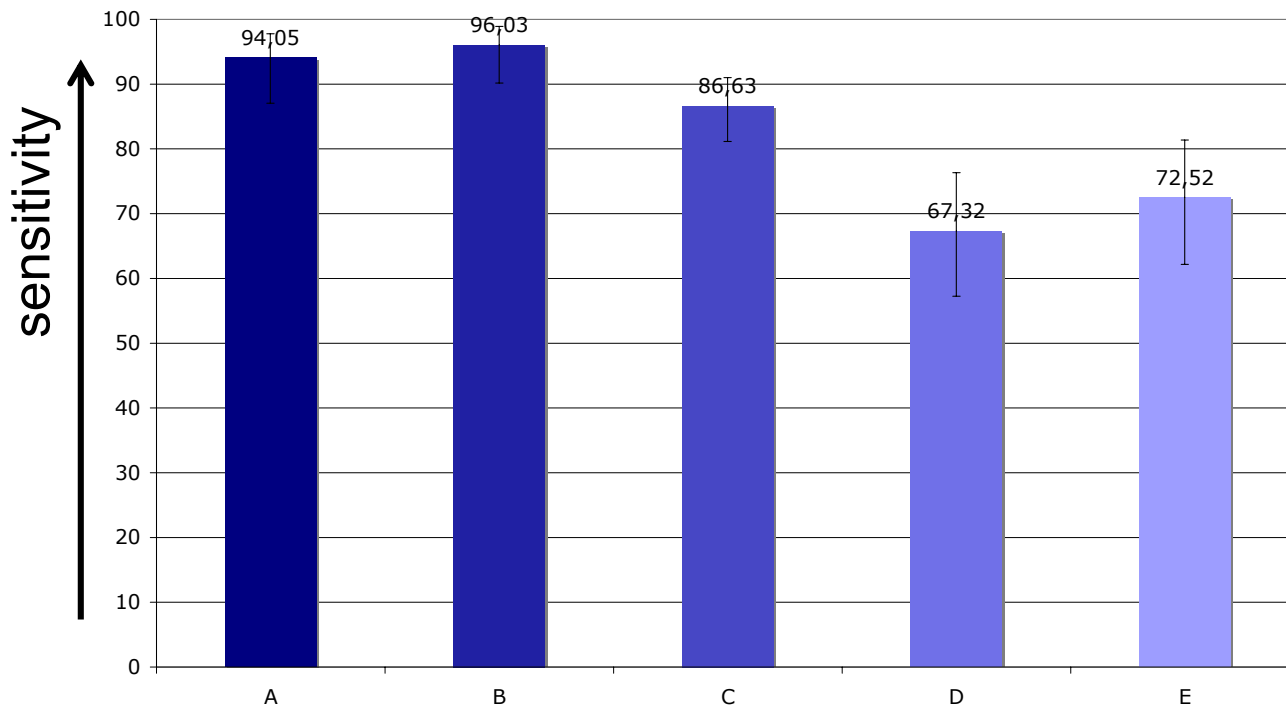
## Identification of muscle larvae according to method



No significant difference between magnetic stirrer and stomacher  
Trichomatic: significantly less sensitive than the 2 other methods

# Results

## Identification of muscle larvae according to the lab



Lowest sensitivity for D and E but digestion performed only with trichomatic

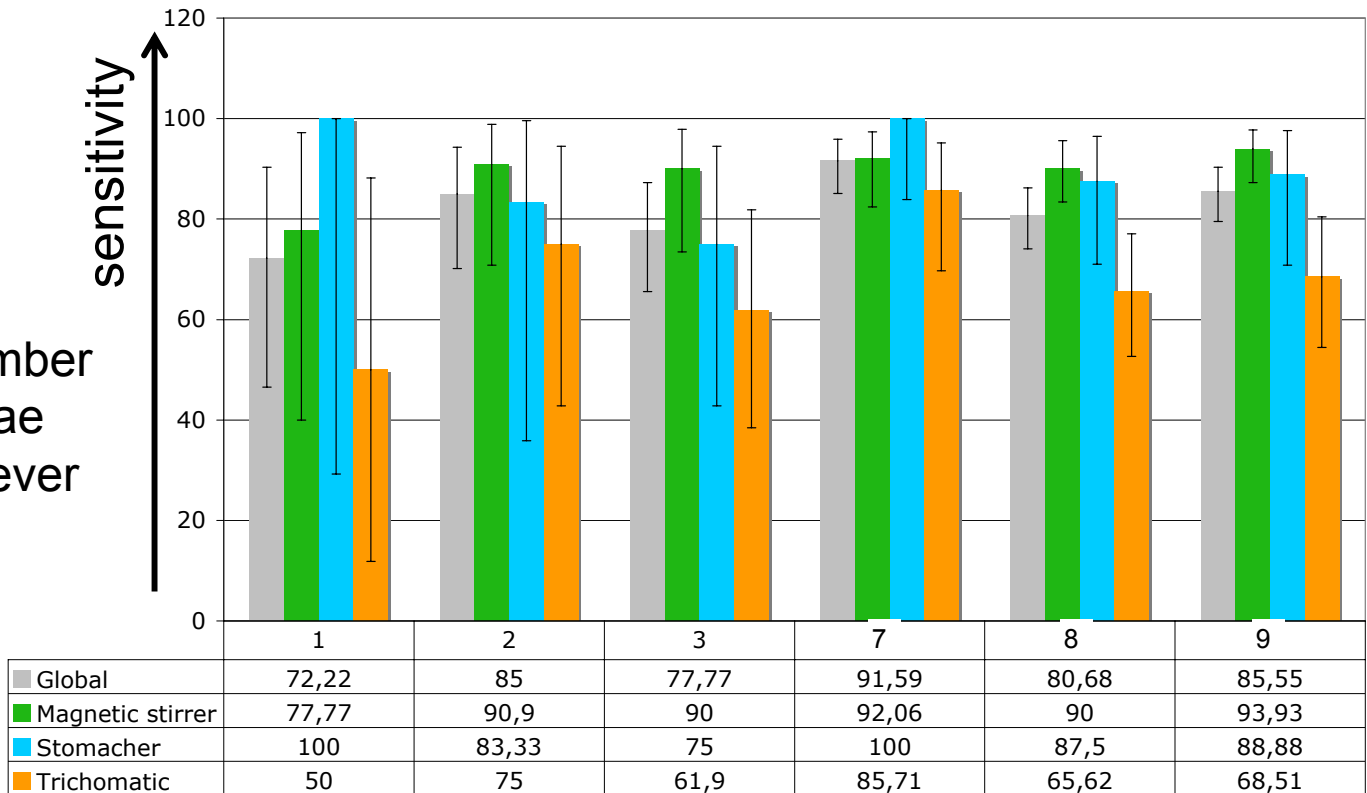
Highest sensitivity for A and B : both used magnetic stirrer only

C used both method magnetic stirrer and stomacher

# Results

## Influence of capsules number on larvae identification?

No effect of the number of capsules on larvae identification, whatever the method used



# Conclusion

Method used for proficiency samples preparation is discriminating regarding method of analysis

Trichomatic 35<sup>®</sup>: lowest sensitivity of the 3 official methods

No significant difference between magnetic stirrer and stomacher methods

# Perspectives (Task 3- Trichimed)

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