



Activities of the EURL during 2013-2014 2015 EURL Expected Activities

EU Reference Laboratory for Brucellosis
ANSES – Maisons-Alfort, France



The 2013-2014 Workprogramme

A1 Support to DG Sanco and NRLs A2 Training activities **A3** Interlaboratory ring trials **A4** Meetings, WS **A5** Website **A6** Specific studies



A1 - Support to DG Sanco and to EU Brucellosis NRLs

Technical advises

- · Unexpected or doubtful results from sera
- Identification and biotyping of strains

Supply of biological material

- Standardised reagents for immunological diagnosis
- Reference strains

Reagent controls

- 9 batches of RBT antigen
- 1 batch of CFT antigen
- batches of iELISA (10 bovine sera and 5 milk)
- 4 batches of positive control sera

+ Report of the Brucellosis NRL's annual activity



A1 - Support to DG Sanco and to EU Brucellosis NRLs

Strains collection

- Collection of B melitensis (request sent in early 2014)
- Only a few responses....soplease, help us!
- Transport : to be organised



Greenland (NAMORE) Greenland Norwegian Sea Arkhangst's **ICELAND** NORWAY FINLAND Torshavnay Paroe Islands SWEDEN) (DENHAMN) RUSSIA Stockholm Stavanger North Sea. BELARUS UKRAINE Budapes ROMANIA FRANCE onstanța Bucharest, Black BULGARIA ITALY Zaragoza, Rome Madrid PORTUGAL SPAIN Valencia BALEARIC Mediterranean Sea Algiers Tunis Valletta * TUNISIA ALGERIA MOROCCO

Technical advises

- 1) 25 sera from Northern Ireland
- 3) 1 strain from Lithuania genotyped

- 4) 3 strains from FYROM genotyped
- 2) 20 sera from Kosovo
- 5) 6 strains from Cyprus genotyped



nany - September 8-9, 2014

Greenland Barents (NAMIOE) Greenland Norwegian Sea Arkhangel'si **ICELAND** NORWAY FINLAND Torshavnay Paroe Islands SWEDEN (DENHAMN) SHETLAND Helsink ESLANDS RUSSIA Bergen. Rockall (U.S.) Stockholm HEBRIOUS E Stavanger North Atlantic Titryebok* North Ocean Sea. Kaliningrad BELARUS KINGDOM UKRAINE HOLDOVA ROMANIA FRANCE estanta Biscay Belgrade ITALY Zaragoza, Rome Tiran. Madrid PORTUGAL Barcelona SPAIN Valencia BALEARIC Mediterranean Sea Algiers Scale 1: 19,500,000 Tunis Lambert Conformal Conic Projection Valletta * standard parallels 40'N and 56'N TUNISIA ALGERIA MOROCCO

Biological material

Reference strain (supplier)

Reference strains (ext. EU)



Thailand

Standard sera (+17 supplier requests)

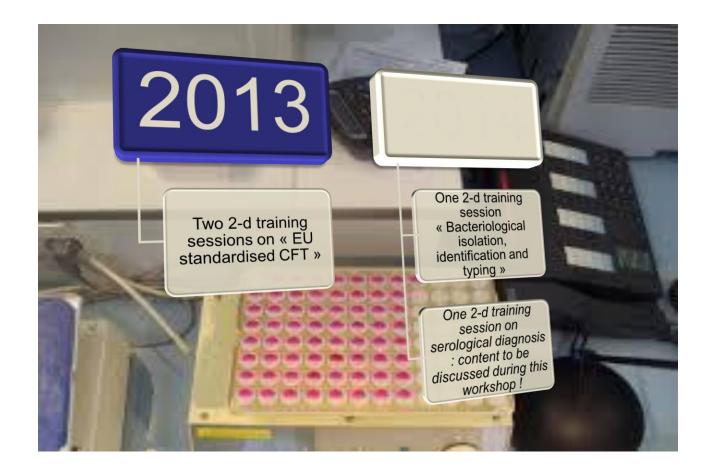
B. ovis antigen (+ control)



Monospecific (Anti-A, M), polyclonal (R, S) and negative sera: to be organised before end of 2014



A2 - Training activities (2013 & 2014)







Greenland Barents (NAMOLE) Sea Greenland Sea Marmansk Norwegian Sea Arkhangel'si Reykjavik **ICELAND** NORWAY FINIAND Tórshavnay Paroe Islands SWEDEN (DEDMANN) SHETLAND Helsink ISLANDS .. RUSSIA Bergen. Rockall (U.S.) Stockholm HEBRIOUS 5 Stavanger Moscow North Atlantic /itryebok* North Ocean Sea. BELARUS KINGDOM filminghan UKRAINE HOLDOWA Budapest ROMANIA FRANCE Tay of pestanta Biscay Black A Coruña Belgrade Toulouse Islantus. ITALY Corsica Madrid PORTUGAL Barcelona SPAIN Valencia BALEARIC Mediterranean Sea Olbraitar Målaga Algiers Scale 1: 19,500,000 Tunis whert Conformal Conic Projection, idard parallels 40'N and 56'N TUNISIA ALGERIA MOROCCO

Trainees

EU standardised CFT (7+4)

Bacteriological isolation, identification and typing



A3 - Inter-laboratory ring trials





- Validation RT for EU Porcine brucellosis (EUPBSS) and EU Brucella ovis (EUBoSS) Standard Sera in comparison with the OIE corresponding standards (ISaBsS and ISaBoS): to be presented during the WS
- ILPT for bovine brucellosis milk I-ELISA: to be presented during the WS



- ILPT for serological tests in brucellosis (RBT, CFT, SAT and iELISA): to be presented during the WS
- ILPT for batch control of Rose-Bengale diagnostic antigens planned for the 2nd semester of 2014.





A4 - Meetings / Workshops

2013

A two-day workshop in September 2013 in Zagreb, Croatia

2014

A two-day workshop in September 2014 in Berlin, Germany





The 2013-2014 activities

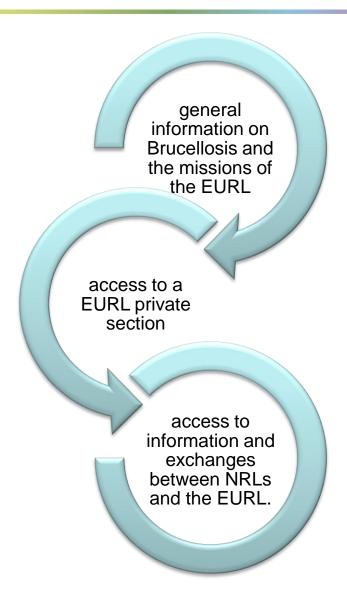
Activity 4. Meetings / Workshops







A5 – Website management









https://sites.anses.fr/en/minisite/Isua-brusellose/european-union







A6 – Specific studies

To address the recommendations of EFSA for ovine and caprine 6.1. brucellosis



- Comparative analysis of EU approved tests (RBT, CFT) with FPA, iELISA (standardised according recently adopted criteria against the OIE ISaBmS international standard serum) and cELISA of different formats (i.e. at least 3 different commercial kits available in the EU)
- **2014**: Fluorescence polarisation assay (FPA) in progress
- Molecular typing as a tool for improving the investigation of 6.2. Brucellosis outbreaks and human cases



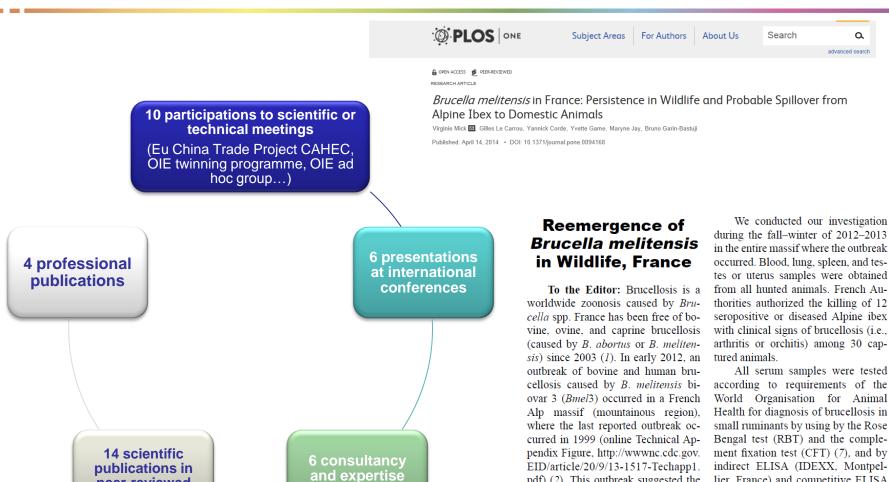


Under progress....

The 2013-2014 scientific valorisation

peer-reviewed

journals



in the entire massif where the outbreak occurred. Blood, lung, spleen, and testes or uterus samples were obtained from all hunted animals. French Authorities authorized the killing of 12 seropositive or diseased Alpine ibex with clinical signs of brucellosis (i.e.,

a

All serum samples were tested according to requirements of the World Organisation for Animal Health for diagnosis of brucellosis in small ruminants by using by the Rose Bengal test (RBT) and the complement fixation test (CFT) (7), and by indirect ELISA (IDEXX, Montpellier, France) and competitive ELISA

pdf) (2). This outbreak suggested the

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reports

The 2015 Workprogramme

A1

Support to DG Sanco and NRLs

A2

Interlaboratory ring trials

A3

NRLs network related training activities and animation

A4

Development, evaluation of innovative analytical methods



The 2015 Workprogramme

A1

- •SOP « Brucella identification (species / biovar)
- ·Strains collection: B abortus requested
- Report of the NRLs activity

A2

One milk iELISA ILPT

A3

- •2 training sessions: topics to be discussed during the WS
- •WS: Fall 2015, France, Maisons-Alfort
- •Website: private sections will be developed

A4

- Ovine and caprine serological tests study (following EFSA recommendations): final analysis
- •Development of iELISA bulk milk in small ruminants (2015-2017) : collection of samples
- Molecular typing as a tool for improving the investigation of outbreaks (including human cases)
- Diagnostic tools including AST and sequencing approaches for Brucella strains





Thank you



