



NATIONAL REFERENCE LABORATORY FOR Escherichia coli (VTEC)

ROMANIA

INSTITUTE FOR HYGIENE AND VETERINARY PUBLIC HEALTH BUCHAREST

*NATIONAL REFERENCE INSTITUTE IN ANIMAL ORIGIN PRODUCTS AND
CERTAIN FOODSTUFFS AND FEEDINGSTUFFS EXPERTISE*



ORGANISATION

ROMANIA

GOVERNMENT OF ROMANIA

N.S.V.F.S.A.

I.D.A.H.

I.H.V.P.H.

I.C.B.P.V.D.

SANITARY VETERINARY AND FOOD SAFETY LABORATORIES

SANITARY VETERINARY AND FOOD SAFETY VETERINARY LABORATORIES

SELFCONTROL LABORATORIES

CLIENTS

ANIMAL HEALTH DEPARTMENT

FOOD SAFETY DEPARTMENT

INSTITUTE FOR HYGIENE AND VETERINARY PUBLIC HEALTH BUCHAREST

accredited by RENAR complying with SR ISO 17025/2005
by Accreditation Certificate
No. 190 – L

RENAR recognizes the capacity of the laboratory to carry out testing in foodstuffs and feedingstuffs in the following fields:

- microbiologic analyzes;
- physical - chemical analyzes;
- toxicological analyzes;
- radioactive contamination level;
- residue control

MANAGEMENT OF QUALITY

■ OFFICIAL LABORATORIES

PARTICIPATION
IN INTERCOMPARING
SCHEMES

TRAINING AND
SPECIALISING OF
THE STAFF

SR ISO
17025/2005

CALIBRATION
OF EQUIPMENT

VALIDATION OF METHODS

EXTERNAL QUALITY CONTROL

- Taking part in national and international ring tests;
- Audits carried out by the national accrediting body RENAR and/or other external bodies;

Ring tests

CRL 2007:

- Serotyping of *E. coli*
- Total Count Flora from milk
- Detection and enumeration of *Trichinella* spp.
- Isolation of *Salmonella* spp.
- Detection and enumeration of coagulase positive *Staphylococcus*

Ring tests

FAPAS 2007:

1. Detection of Salmonella spp - meat
2. Detection of Listeria spp -meat
3. Detection of Listeria spp – powder milk
4. Meat provenience determination - meat
5. Detection of Campylobacter - milk –
6. Determination of enterobacteriaceae number - meat

INSTITUTE FOR HYGIENE AND VETERINARY PUBLIC HEALTH BUCHAREST

- OUR INSTITUTE HAS BEEN DESIGNATED AS NRL FOR *Escherichia coli (VTEC)-2007*
- WE HAVE BEEN ACCREDITATED FOR *E. Coli O 157 EN ISO 16654* SINCE 2002 AND *E. coli β-glucuronidase positive ISO 16649*, SINCE 2006

Microbiology Department

- **NRL for Escherichia coli-VTEC**
- NRL for Salmonella
- NRL for Listeria
- NRL for Campylobacter
- NRL for coagulase-positive Staphylococcus
- NRL for milk
- NRL for antimicrobial resistance
- NRL for Trichinella

METHODS

- EN ISO 16654. Immunomagnetic separation
- Isolation: CT-SMAC agar
RT-SMAC agar
- VIDAS immuno detection
- Detection of VT1 and VT2 verotoxins by ELISA techniques
- Serotyping of E. coli

- Toxin production- Denka Saiken reverse passive latex

ACTIVITY OF THE NRL E. COLI

- Adapting and implementation of new assay methods;
- Durability studies;
- Training programs for specialists from Sanitary Veterinary County Laboratories regarding new assay methods;
- Surveillance and control of Sanitary Veterinary County Laboratories;
- Performing of trimestrial intralaboratory tests;
- Notify the CRLs regarding the activities that our Institute, as a NRL, has carried out
- Providing scientific and technical assistance to the competent authority
- Confirmation of E.coli (VTEC) strains isolated in county labs.

Epidemiological situation:

In this year, there were analyzed 893 samples for E. coli O157. All samples were negative.

- Samples taken from the batches coming from National Surveillance Program.
- Samples taken from the batches coming from imports
- Samples taken from the batches coming from exports
- Samples taken in the framework self-control programs
- Samples taken for extension of new analysis methods
- Sampling is performed by official veterinarians

Objectives for 2008

Extension of accreditation for new assay methods :

- Detection of VT1 and VT2 verotoxins by ELISA techniques
- Serotyping of E. coli
- Toxin production- Denka Saiken reverse passive latex
- **Training** for specialists according to CRL programs:
- Serotyping
- Molecular biology techniques (PCR)

Attending to:

- Specific programs for surveillance of Campylobacter and Salmonella from poultry carcass
- Collaborative study for identification and isolation of E. coli O157 from food matrices
- Ring tests developed by CRL, FAPAS, WHO, FAPAS.

- Any other activities for continuous informing and training
- **Close co-operation with CRL** on specific tasks

Plans for the future: PCR methods for vt1, vt2, eae gens

THANK YOU FOR YOUR ATTENTION

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