BLUETONGUE VIRUS TYPE 6 (BTV-6)

IN THE NETHERLANDS

Preliminary Report (Working document)

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BTV-6 in the Netherlands

24 October 2008

- The Netherlands reported
  4 BTV-6 positive cattle

Two Provinces affected

- Gelderland (one positive)
- Overijssel (three positive)

Disease control zones

- Controlled zone (50km radius)
- Restricted Zone – rest of country
Emergency SCoFCAH Meeting – 28 Oct 2008

Community Veterinary Emergency Team (CVET)
- Mission to the Netherlands (5-7 Nov 2008)

CVET Objectives:
- Study the epidemiology of BTV-8 outbreaks in the country and the circulation of BTV-6 strain;
- Analyse the epidemiology and laboratory data on BTV-6;
- Support risk assessment on BTV-6 circulation;
- Provide recommendations and immediate to medium-term needs for surveillance and control.
Methodology

European Commission
Community Veterinary Emergency Team

Investigate possible source(s)

Carry out preliminary epidemiological study

BTV-6 infection

Official meetings

Preliminary conclusions
Possible conceptual pathways for BTV-6 introduction to the Netherlands

- Third Country - legal trade
  - Live ruminants
  - Germplasm
  - Susceptible wild animals
  - Exotic zoo animals
  - Use of authorised biologicals (but unknown to be contaminated)
  - Plant material
- Illegal
  - Illegal movements of animals
  - Illegal use of contaminated unauthorised biologicals
  - Illegal use of contaminated unauthorised biologicals
  - Research samples
- Culicoides vectors
  - From Third countries
  - From neighbouring EU MSs
- International visitors
  - Visits to farms
- Other investigations
  - Circuses
  - South African vaccine delivery
  - International equine events
  - Other (e.g. rumours, etc)
Preliminary conclusions:

The virus
- BTV-6 VP2 segment sequencing – 99.9% identical to live vaccine BTV-6 strain;

Legal trade – Third country
- Live ruminants imports – highly unlikely;
- Three consignments of live alpacas from Chile – highly unlikely;
- Germplasm – no imports taken place from South Africa;
- Use of commercially available BTV-8 inactivated vaccine; cross-contamination unlikely; investigation underway;

Illegal activities
- Currently not possible to determine - investigations underway (and should take into account that could have happened a while ago);

Collaborative approach
- The Netherlands-German collaboration.
BTV-6 infection

- Potential distribution in the whole of the Netherlands
- Preliminary investigation in the currently affected areas
- Laboratory tests
- Characterisation and the pathogenesis of the virus
- Existing control measures
Preliminary conclusions:

The virus

- BTV-6 VP2 segment sequencing – the virus is more likely to be a vaccine strain for the time being;

- Still not possible to determine whether the first introduction may have occurred to the Netherlands or to Germany;

- Disseminated over relatively large area although at apparently low level; able to cause clinical signs in cattle; no clinical signs in sheep observed;

- Full sequencing underway (BTV-6 virus isolate – NL; South African BTV-6 vaccine strain; BTV-6 reference strain);

- Further genotypic and phenotypic studies planned/underway.
Preliminary conclusions:

Surveillance

- No active continuous BT surveillance is currently carried out in the Netherlands, as yet;

- Under the current circumstances - no further benefit from random surveillance in the currently affected area;

- Serological testing – sera already collected (i.e. suspect cases; samples from affected and neighbouring herds within the Controlled zone;

- A “step-wise” approach – from the affected herds and neighbouring herds first (approx 3300 samples), need for further testing to take into account evolving epidemiological investigation;

- Collaboration between the Netherlands and Germany continues;

- In-house developed tests to be validated/harmonised.
Preliminary conclusions:

Existing control measures

- Existing precautionary measures in the Netherlands (and Germany) seem to be adequate and proportionate;
- Collaboration between the Netherlands and Germany continues;
- Review current measures in light of new epidemiological information.
Preliminary conclusions:

Potential for further spread:

- At this stage difficult to ascertain whether BTV-6 incursion will follow a similar pattern to BTV-8 incursion in 2006;

- Short-term developments with BTV-6 likely;

- Early stages - many uncertainties remain - further assessment of potential spread on the basis of:
  - field investigations,
  - surveillance,
  - genetic and phylogenic studies,
  - meteorological and entomological studies;

- Collaboration between the Netherlands and Germany continues;

- Discussion on appropriateness of the measures in place, eventual review of EU rules, if required.
Acknowledgement:

We would like to emphasise great commitment, support and openness of all involved in the work of this mission. Our sincere thanks go to Dr. P.W. de Leeuw, Chief Veterinary Officer (CVO); Dr. C.J.M. Bruschke, Deputy Chief Veterinary Officer, Food Quality and Animal Health Department (VD); Mrs. Ing. C.C. Posthumus Meijjes, Staff Officer from Food Quality and Animal Health Department (VD); Mr. L.W.J. Wijnhamer, Food and Consumer Product Safety Authority (VWA); Dr. A.N. van der Spek, Senior Veterinary Officer VWA; Dr. P.Vellema, Manager Ruminant Health Department from Animal Health Service (GD). Dr. P.A. van Rijn, Central Veterinary Institute (CVI); Dr. E.J. Scholte, Department of Entomology, Plant Protection Service, Dr. K. Steijn, Food and Consumer Product Safety Authority (VWA) Ir. M.L.H. Pelk, General Inspection Service; Dr. A. Elbers, Central Veterinary Institute (CVI); Dr. R. Krieger, Federal Ministry for Food, Agriculture and Consumer protection, Bonn, Germany; Dr. B. Hoffmann, Friedrich-Loeffler-Institute, NRL, Bluetongue, Insel Riems, Germany.