Annex IV

BLUETONGUE

CONTINGENCY PLAN FOR CYPRUS

STAFF MANUAL OF INSTRUCTIONS

OPERATION MANUAL

UPDATED OCTOBER 2009
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1. LEGAL POWERS

1.1 Primary Legislation


1.2 Secondary Legislation


2. THE CHAIN OF COMMAND

2.1 The Control of Bluetongue (BT) rests with the Minister of Agriculture, Natural Resources and Environment who delegates the direction of control strategies to the Director of Veterinary Services (CVO).

2.2 The CVO has delegated contingency planning for BT to the officer in charge of the National Disease Control Centre (NDCC) (name and address of the centre at Annex III).

2.3 In the event of an outbreak of disease, the NDCC will co-ordinate the national strategy under the overall direction of the CVO.

2.4 The District Veterinary Officers at the District Veterinary Stations which act as Local Disease Control Centres (LDCCs) are responsible for BT control (infected premises and restrictions in their territory). Names, locations and 24 hours contact telephone numbers, are listed in Annex V.

3. PRELIMINARY ACTION

3.1 Reporting disease

The presence or suspected presence of BT disease must be reported by law. The owner or a veterinarian must report the suspicion without delay to the Veterinary Services or the nearest Police Station (Form BT 1).

3.2 Arranging the investigation

On receiving a report of the presence or suspected presence of BT on a livestock holding or in any other place, the local official veterinary centre in whose area the holding is located must immediately ensure that an investigation is set in motion to confirm or rule out the presence of the disease and to place the suspected holding under surveillance.
At the time the investigation is initiated, the National Disease Control Centre must be informed so that preparations may be made for dealing with an outbreak, if disease is confirmed, including the establishment of a Local Disease Control Centre and the activation of the Expect Group. The Official Veterinarian carrying out the investigation must take with him/her the equipment listed in Appendix I.

4. THE VETERINARY INVESTIGATION

4.1 Imposition of movement restrictions

Immediately on arrival at the holding under suspicion the Official Veterinarian places it under official surveillance.

The Official Veterinarian makes an official inventory of the stock for epidemiological purposes. All the susceptible animals in the various categories on the holding must be counted and a list (Form BT 3) compiled with the number of animals already dead or likely to be infected in each category. The owner must be instructed to update the list (Form BT 3) taking into account the births and deaths during the period of suspicion. The information on the list must be available on request and must be checked at each surveillance visit to the farm.

The Official Veterinarian conducts a detailed clinical examination or an autopsy of animals that are dead or suspected of infection in order to confirm the disease, if necessary by means of laboratory tests.

A form notice (Form BT 2) must be given to the owner or to the owner's representative imposing the following restrictions:

- no animals of susceptible species may enter or leave the holding without the authorization of the official veterinary service;

- where the veterinarian considers that the means required for keeping the animals confined at times when the vectors are active, instructions are given to the owner to do so.

4.2 Other measures for the control of the disease

In order to reduce the vector load in the area, the animals, their housings and possible Culicoides breeding sites in the surrounding area of the farm are regularly treated with authorized insecticides (Appendix II). A census is made for all the places likely to facilitate the survival of or to harbour the vector and, in particular, of the sites conducive to its reproduction. To prevent infestations by the vectors as far as possible, the rate of treatment shall be fixed by the competent authority, taking account of the residual action of the insecticide used and the climatic conditions.
The withholding periods must always be met. The Official Veterinarian shall regularly visit the holding or holdings.

The carcasses of the dead animals on the holding are destroyed by means of incineration or in case of a worst case epidemic by means of burial according to the provisions of Regulation (EC) 1774/2002.

4.3 The initial epidemiological inquiry

An epidemiological inquiry Form BT 4 must be carried out aiming to determine:

- the length of time BT may have been present on the holding before suspicion of the disease was reported;
- the possible origin of the disease on the holding;
- the identification of other holdings on which there are susceptible animals, which may have become infected from the same source;
- the presence, distribution and composition of the population of the vectors;
- the eventual movements of susceptible animals to or from other holdings, or any departure of animal carcasses from those holdings.

4.4 Extension of movement restrictions

The Official Veterinarian can implement any of the restriction measures, according to subparagraphs 4.1 and 4.2 to other holdings, if their geographical location is in the vicinity of the infected farm or there were any recent contacts with the suspected holding (Form BT 2).

In addition to the provisions of subparagraphs 4.1 and 4.2, specific provisions may be laid down for the nature reserves in which animals live freely, after consultation with the Commission.

4.5 Clinical inspection

In carrying out the investigation, the Official Veterinarian must make an inventory (Form BT 3) of the different categories of susceptible animals on the holding (sheep, goats and cattle).

A careful inspection should be made of all susceptible animals on the holding and a record made of any lesions suggestive of BT and any other symptoms including pyrexia.
Clinical signs

Sheep
Bluetongue is primarily a disease of sheep but when sheep have positive BT serology, care must be taken to avoid confusing clinical bluetongue and diseases with similar clinical signs (differential diagnosis).

The intensity of the clinical signs in sheep can vary, ranging from subclinical to severe disease.
The acute signs begin with fever, which may last about a week. According to the OIE terrestrial code the incubation period, is up to 100 days and is possibly influenced by the dose of virus received. Clinical disease in sheep usually follows amplification of virus in cattle and spread from cattle to sheep. Therefore, disease may not be observed until one to two months after pathogenic virus has entered an area. Within 24-36 hours of the onset of fever the mucous membranes of the mouth and nose becomes hyperaemic. This is accompanied by excess salivation and a clear nasal discharge. Over the next few days, the discharge becomes thick with mucus and pus and may be blood stained. It eventually dries to form a crust around the nostrils.

In acute cases, the lips and tongue become very swollen. The oedema may extend over the face to include the ears and intermandibular space. The hyperaemia becomes more intense and petechial haemorrhages appear on the mouth, nose and conjunctival linings.
The clinical sign, that gives the disease its name, i.e. a deeply cyanotic (blue) tongue, occurs in only a small percentage of cases.

Necrotic lesions develop on the gums, cheeks and tongue 5-8 days after the onset of fever. These lesions heal slowly under a membrane of pus and serum (diphtheritic membrane).
Breathing also becomes difficult.
Profuse bloody diarrhoea may occur in some cases.
Vomiting may also occur and lead to inhalation pneumonia.

Foot lesions may appear towards the end of the fever period on one to four feet. There is acute reddening and petechial haemorrhages on the coronary band at the top of the hoof. Affected sheep stand with arched backs and are reluctant to move.

There is a rapid weight loss and weakness due to loss of appetite and specific muscular necrosis. Spasmodic twisting of the head and neck to one side (torticollis) is sometimes a late sign.
Breaks occur in wool, which add to the production losses.
The mortality rate is variable and depends on the pathogenity of the strain: in highly susceptible sheep it can be up to 70%. Deaths may occur at any stage up to a month or more after the onset of signs.
Convalescence in surviving sheep is prolonged.

Infection of pregnant ewes may lead to abortions, mummified foetuses, or the birth of stillborn or weak lambs, which may have congenital defects.
**Goats**
Goats are less commonly, and less severely, affected than sheep. The pathogenesis is similar and the clinical signs are milder.

**Cattle**
Infection in cattle, although of great epidemiological significance, is generally subclinical.
Only a very small number of cattle, immunologically naive to BT virus may exhibit clinical signs. These include inflammation and mucosal erosions in the mouth and nose, mild laminitis and a stiff gait. Infection of early pregnant animals may lead to embryonic death and resorption.

4.6 Pathology

**Gross lesions**
In sheep, the basic pathological process is endothelial damage. Haemorrhages, 2-15 mm in diameter, in the Tunica media at the base of the pulmonary artery are regarded as being very characteristic of bluetongue. The most prominent gross lesions in the gastrointestinal tract are found in and around the mouth. There is oedema and hyperaemia in the mucosa, which is occasionally cyanotic. Petechial or ecchymotic haemorrhages may also be present. Abrasions, which may be covered by grey necrotic material, are found on the lips, dental pad, tongue and cheeks. Hyperaemia of the ruminal pillars and reticular folds is common.

The lymph nodes and the spleen are moderately enlarged and haemorrhagic. Pale areas of necrosis are scattered through the skeletal muscles. There is inflammation of the upper respiratory tract, causing excess mucus secretion (catarrhal inflammation) and oedema of the lungs.

**Microscopic lesions (histopathology)**
Damage of the endothelium of small blood vessels can be observed histopathologically. This damage results in vascular occlusion and clotting, which leads in lack of oxygen and sloughing of the epithelium in epithelial tissues.

Experimental Australian cases exhibited haemorrhages, inflammatory mononuclear cell infiltrations and necrosis of the heart muscle (myocardium).

4.7 Differential diagnosis
The following diseases must be considered in the differential diagnosis for bluetongue:
- Contagious ecthyma
- Acute photosensitisation
- Lameness due to footrot, foot abscess and other foot conditions
- Acute haemonchosis (with depression and submandibular oedema)
- Facial eczema
- Oestrus ovis infestation
• Pneumonia
• Plant poisoning
• Salmonellosis
• Sheep pox
• Foot and Mouth disease
• Peste des petits ruminants
• Rinderpest

4.8 Collection of samples

Specimens required

It is essential for the diagnosis of bluetongue that the most appropriate specimens are carefully collected and properly transported.

The following specimens are required for the diagnosis of bluetongue.

• Samples of blood from the jugular vein of each of up to six sheep with high (in excess of 40.5°C) body temperature. The virus is usually present in highest concentration in the blood of sheep during the early stage of pyrexia. Viraemia persists after the temperature subsides, but at a lower concentration.
  o One 10 ml of blood is collected into a sterile tube and allowed to clot to provide a serum sample for the antibody test
  o A second 10 ml is collected into a sterile tube with anticoagulant, preferably EDTA.
• Vacutainers or commercially prepared disposable tubes are used.
• Separate needles must be used for blood collection from each animal to avoid cross-contamination of samples or the cross-infection of animals.
• The samples should be tightly capped and the one with anticoagulant well rotated to ensure adequate mixing.
• Sera from 10-15 convalescent sheep (if there are any). If no convalescent sheep are present, sera should be collected from in-contact sheep.
• Sera from in-contact cattle, ideally yearlings and from other ruminants.
• Spleen and lymph nodes from all post-mortem examined cases.
• Cardiac and skeletal muscle (especially if abnormal) is placed in formalin for fixation.

4.9 Transport of specimens

Specimens should be transported on wet ice.

If ice blocks are used, extreme care should be taken to ensure specimens do not contact the blocks. Direct contact with ice causes freezing, which inactivates the virus.
Whole blood samples should be held at +4°C for transmission experiments with wild virus.

A full history and identification of samples is necessary. Duplicate samples, for differential diagnosis of endemic diseases, should be collected and retained by the State Veterinary Laboratories of the Veterinary Services.

It is important that the submission of Form BT 5, which accompanies the samples to the laboratory, includes a briefing of the recent clinical history of the flock and whatever epidemiological data are available, including, if possible, the likely source of the infection and the date of introduction.

Samples will be sent also to the Community Reference Laboratory at the Institute for Animal Health, UK for typing and fingerprinting of the virus involved. The results of such tests provide valuable information on the relationship between outbreaks, which may occur within and outside the European Community and the vaccine strain that would be most appropriate should it subsequently be necessary to consider the option of vaccination.

The samples, which are sent to the Institute of Animal Health, (Pirbright) must be packaged in accordance with the protocols for biological materials, stipulated by the Universal Postal Convention and with the specific requirements of the carrier airline. The samples should be packaged as described above, wrapped in soft, absorbent material and placed in a strong cardboard or wooden container. (The samples are accompanied by Form BT 6A if sent to the UK and BT 6B if sent to Greece). The outer container should then be wrapped in strong paper secured by string or adhesive tape (biohazard tape is useful for this purpose) and labeled:

**PATHOLOGICAL MATERIAL OF NO COMMERCIAL VALUE**

AFRC INSTITUTE OF ANIMAL HEALTH
PIRBRIGHT LABORATORY
ASH ROAD
PIRBRIGHT
WOKING
SURREY GU24 0NF
GREAT BRITAIN
Tel.: (44-1483) 232441
Fax: (44-1483) 232448
E-mail: Philip_mellor@bbsrc.ac.uk

(PERISHABLE FRAGILE TO BE COLLECTED AT AIRPORT BY ADDRESSEE)
KEEP AT 4° CENTIGRADE

or

Ινστιτούτο Λοιμωδών και Παρασιτικών Νοσημάτων
Τμήμα Ιολογίας
25 Νεαπόλεως
Αγία Παρασκευή
Αθήνα - ΕΛΛΑΣ
4.10 Reports to the N.D.C.C.

Having completed the preliminary inquiry, collected the necessary diagnostic samples and arranged for the samples to be dispatched to the National Reference Laboratory, the Official Veterinarian, should complete before leaving the suspected premises, the Preliminary Report (Epidemiological inquiry Form BT 4) and either send it by fax or email, or make a telephone report to the National Disease Control Centre. In any case, the Official Veterinarian must contact per telephone the NDCC, so that he/she can be given instructions, regarding any additional action, which might be required before he/she leaves the holding.

4.11 Action pending laboratory results

The restrictions imposed will remain in force until the suspicion of BT has been officially ruled out.

The Official Veterinarian should explain to the owner or the owner’s representative the nature of the disease and the way is transmitted.

Arrangements should be made for the safe disposal of the carcasses of animals, which have died or have been killed for diagnostic purposes. This must be done, according to Regulation (EC) 1774/2002.

Further surveillance visits to the holding under suspicion and to other neighbouring farms, should be arranged in consultation with the National Disease Control Centre.

The NDCC has to make consultations with the Commission for the protected places, where animal lives in freedom in order to arrange special provisions.

4.12 Negative diagnosis

In some cases, it will be possible for the Official Veterinarian, on the basis of the clinical and post mortem findings, to advise the National Disease Control Centre that there is no evidence of the presence of BT on the holding. If the National Disease Control Centre is satisfied with such a negative report, the restrictions imposed can be withdrawn immediately (Form BT 7).

Otherwise, it will be necessary to wait for the results of the laboratory tests.

If the test results are negative, the restrictions imposed may be withdrawn immediately on the instructions of the National Disease Control Centre. It may be, however, that the suspicion of BT remains and that a decision is taken, following consultation between the Official Veterinarian responsible for the investigation on the holding and the National Disease Control Centre, to keep the holding under surveillance and to submit additional tissue and/or blood samples for testing at the State Veterinary Laboratories (Form BT 5).
5. CONFIRMATION OF THE PRESENCE OF BLUETONGUE

According to the Bluetongue Order, article 2, the confirmation of the disease is based on the laboratory results (seroconversion coupled with clinical signs, virus Isolation).

5.1 Notifications

Within 24 hours of the official confirmation of the first outbreak of BT, the EU Commission and the other Member States shall be officially informed of the outbreak. The Community Animal Disease Notification System (ADNS) will be used for such notifications, which will be made in accordance with Council Directive 82/894/EEC and Commission Decision 84/90/EEC Annex I (Form BT 8). The Internet home page of the ADNS system to be used for reporting is:

https://adns.cec.eu.int/adn/SilverStream/Pages/pgIndex.html

The National Disease Control Centre will prepare the information for the notification, which must include at least the following details:
the date on which BT was suspected;
the date on which BT was confirmed;
the methods used for confirmation;
the location of the infected holding;
its distance from the nearest holdings with susceptible stock;
the number of susceptible animals of each species and category on the holding;
the number of animals of each species and category in which BT has been confirmed;
the situation of vectors
the morbidity of the disease.

Notification will be made also to the OIE within 24 hours of the first outbreak. All the neighbouring countries should also be informed.

Relevant National and Local Agricultural and Veterinary Organizations will also be notified directly that BT has been officially confirmed.

The owners of the infected farms should be noticed (Form BT 9).

The necessary media announcements shall be made as appropriate.

5.2 Establishment of a Local Disease Control Centre

As soon as Bluetongue has been confirmed, the N.D.C.C. arranges the establishment of a Local Disease Control Centre in the relevant D.V. Office and supplies it with all the Veterinary, technical and administrative manpower and whatever other resources are necessary to achieve the control and eradication of the disease as soon as possible.

Within the Local Disease Control Centre, surveillance map will be prominently displayed, showing the locations of all holdings with susceptible animals with an
indication of the number of each species on each of them. The map will be amended daily to show the progress being made with the surveillance exercise and with the control and eradication campaign in general. The Veterinarian in charge of the Local Disease Control Centre will brief the staff of the Centre daily on the progress being made and on any problems being encountered, and will make a similar report to the National Disease Control Centre.

In details the veterinarian in charge of the LDCC has to:

1. Inform the owner that disease has been confirmed.
2. For animal welfare purposes immediately order the slaughter of animals, with very intensive clinical symptoms (Form BT 10). The NDCC should be informed in advance about this intention.
3. Organize the valuation, slaughter and disposal of the infected sheep.
4. Order the disposal, destruction by incineration (burial only in exceptional cases) of the carcasses, according to Regulation (EC) 1774/2002.
5. Arrange the insecticide spraying of the premises, where susceptible animals live and the places, where vectors can live and multiply.
6. Investigate the disease with consultation or help of the NDCC.
7. Apply all the directions for the possibility of a vaccination program or any other alternative measure, which is decided by NDCC with liaison of the Commission.

DUE TO THE NATURE AND THE EPIDEMIOLOGY OF THE DISEASE AND DUE TO THE SIZE OF CYPRUS, IN CASE OF AN OUTBREAK THE ENTIRE ISLAND SHOULD BE CONSIDERED AS PROTECTION ZONE.

AS THE KILLING OF ANIMALS IN ONE FLOCK DOES NOT CONSIDERABLY CONTRIBUTE TO THE ERADICATION OF THE DISEASE DUE TO ITS VECTOR TRANSMISSION, KILLING OF ANIMALS IS ONLY PRACTICED FOR ANIMAL WELFARE REASONS IN THE CASES WHERE ANIMALS ARE SUFFERING.

5.3 Valuation of the infected animals

1. The owner of the infected holding or the owner's representation will be served with an official notice in writing, indicating the intention to kill all animals, heavily suffering from the symptoms of the disease (Form BT 10).

1. Valuation
   a. Valuation of the sick animals will be carried, before they are killed (Form BT 11). No compensation will be paid for animals that died before killing starts. Payments will be also made for animals killed for diagnostic purposes.
   b. Valuation will be carried out by a committee consisted of three officers, appointed by the Director of the Veterinary Services, according to the Animal Health Law. An appeal procedure exists to deal with disagreements about the valuation of livestock.
c. In any event, valuation or problems arising from the valuation will not be
allowed to delay the killing of all heavily sick animals on the infected
holding.

d. The compensation, according to the Animal Health Law, is 100% of the
reproductive value of the animal. The payment should be done within 90
days from the killing.

5.4 Killing of the animals on the infected holding

1. Before killing starts, arrangements must be made by the Official Veterinarian
and/or by the Local Disease Control Centre for the safe disposal of the
carcasses;

2. In killing, animals account must be taken of their welfare and the provisions of
the Protection and Welfare of Animals Laws of 1994 until 2008. The
Regulations K.D.P. 216/2002 for the Protection of Animals at the time of
slaughter killing must be carefully followed (equivalent to Council Directive
93/119/EC).

3. Killing may be carried out by:
   - Stunning with a penetrating captive bolt, followed by the use of a pithing rod
to ensure that the animal is dead
   - Electrocution (suitable for small ruminants)
   - Lethal injection (for small numbers of animals of all species and for large
numbers of very young sheep).

4. Animals should be killed as near as possible to the place in which they are
normally kept.

5. Killing should be carried out by the veterinary personnel or other licensed
persons.

6. For animals that are fractious, dangerous, or otherwise difficult to handle, it
may be necessary to administer a tranquillising drug by direct injection or by
dart gun prior to killing.

7. The officer in charge of the Centre must provide sufficient numbers of VOs to
ensure that adequate supervision of slaughter by humane methods is constantly
maintained. Slaughter men must be instructed not to commence slaughter
until the Veterinary Officers are present.

8. Before leaving the infected place or before carcasses are moved for disposal,
the VO in charge must be satisfied that all animals, which have been
slaughtered, are dead.

9. Slaughter men must always be supplied with protective clothing and rubber
boots.

10. After completion of killing and disposal of carcasses, Form BT 12 must be
completed and forwarded to N.D.C.C. without delay. The times of
commencement and completion of killing, incineration or burial should be
annotated on this form.

11. Slaughter of sheep

   a. Adult sheep. The VO in charge of the infected place will decide on the best
method of slaughter. A captive bolt, using the appropriate strength cartridge,
is best. If the animal is shot in the frontal or parietal region, the use of a
pithing rod though difficult is essential. It is also possible to shoot sheep
behind the occipital bone, so that the bullet or bolt destroys the medulla.
b. Young lambs. The use of lethalising drugs is recommended. Intracardiac or intraperitoneal injection is the method of choice.

12. DVO as part of their contingency planning should be aware of veterinary staff licensed to use dart guns, in case their services are needed.

5.5 Disposal of carcasses

1. In Cyprus, 3 rendering plants operate. Two of them process Category 3 materials and the other one processes Category 1, respectively. All of them have a daily capacity of 203-245 tons per day. Furthermore, there is one incineration plant with a daily capacity of 13-15 tons per day. The processed animal proteins from Category-1 rendering plant are being transported to a cement factory for destruction.

2. When the outbreak leads to a lack of capacity at such plants, the alternative of burial of the carcasses near the infected holding or to the designated burial sites, should be considered, taking into account the suitability of the land and environmental controls. The Department of VS with all the other involved Governmental Authorities responsible for underground water and soil pollution (Geological Survey, Department of Forests, Environment Service, Water Development Department), have designated burial sites, in the case Cyprus will use the derogation provided by Article 24 of the Regulation (EC) 1774/2002. More specifically, eight (8) burial sites have been specified in animal husbandry areas, taking into consideration soil conditions and underground water resources.

3. The dimensions of a burial pit large enough for 20 adult cattle carcasses or 60 sheep or goat carcasses with a 2 m. cover are: length 6 m., width 3 m. and depth 4 m. The 8 burial sites that have been specified in animal husbandry areas by all the involved Governmental Authorities are clearly indicated on maps.

4. To prevent carcasses in a burial pit from rising to the surface, the abdomens should be cut open before burial to allow gases to escape from the alimentary tract and the abdominal cavity.

5. In the case that the burial should take place in other areas except of the designated ones, then a thorough check must be made regarding the nature of the land (in particular the level of the water), the proximity to watercourses and generally all environmental factors and legal prohibitions should be taken into account. This check should be carried out with the help of the Governmental Authorities responsible for underground water and soil pollution (Geological Survey, Department of Forests, Environment Service and Water Development Department).

5.6 Vectors control

Insect vectors can be carried over long distances by wind. Vectors are infected for life. When susceptible culicoides bite viraemic hosts (normally cattle), sufficient virus may be imbibed to infect the insect. The virus may cross the gut of the insect and after an intrinsic incubation period of 1-2 weeks is excreted in the saliva of competent culicoides, when they feed (1-2 times a week). The approved insecticides
for spraying of holdings and vector breeding places are the organophosphates and pyrethroids. Care must be taken for the appropriate dosage and the withholding periods to be met. The Veterinary Officer defines the frequency of the sprayings, taking account the insecticide action and the weather conditions to combat the vectors.

5.7 Further epidemiological enquiry

Following the confirmation of infection of Bluetongue, further epidemiological inquiries will be made in order to be certain that appropriate control measures are in place on all other holdings, on which the stock may have been exposed to the virus of Bluetongue. This enquiry is the specific responsibility of the Expert Group (Form BT 4).

During the inquiry, all the necessary back and forward tracings should be carried out with the aim of identifying previously undetected sources of infection and holdings, which may have been put at risk by direct exposure to the virus of Bluetongue 100 days, before the starting of the symptoms (incubation period).

Blood samples should be taken from sheep and cattle and repeated, if necessary, for surveillance purposes.

Furthermore, by using light traps posted in various areas, a census of the vectors population is succeeded.

5.8 Further report on the outbreak

Any available information, regarding the epidemiology of the outbreak and the known or possible origin of the infection, will be given at the same time.

Information, as required in sub-section 5.1 and in this sub-section, will similarly be provided in respect of each subsequent outbreak of bluetongue, until the number of infected holdings and the dispersion of the disease show it to be extensive.

Regular detailed reports on the outbreaks will be made to the SCoFCAH.

At the same time, the VO submits an outbreak history sheet to the NDCC (Form BT 4).

6. ESTABLISHMENT OF PROTECTION AND SURVEILLANCE ZONES

6.1 General

For the purpose of implementing all the necessary measures to control the disease, the NDCC defines the protection and surveillance zones, taking under consideration the geographical, ecological, meteorological, administrative, epizootiological aspects, which have relation with Bluetongue as well the structure of control arrangements.
Due to the size of Cyprus and the nature of the transmission by midges, in case of an outbreak, the entire island is considered as the protection zone (Form BT 13).

6.2 Controls in the protection zone

The NDCC takes the following measures in the protection zone:

1. a) a census will be made of all holdings with susceptible animals as soon as possible
   b) implementation of epizootical surveillance program based on the monitoring of sentinel cattle groups – or other ruminants in case of absence of cattle and on vector populations.
   c) a ban on animals leaving the zone.

2. In addition of the above measures, the Veterinary Services following consultation with the Commission may decide the vaccination of animals against Bluetongue in the protection zone.

6.3 Controls in the surveillance zone

Not applicable

7. PUBLICITY

On confirmation of the disease, announcements should be made on the local and national media about the disease and the necessary measures to be taken.
A telephone call and a confirming letter will subsequently be dispatched from the District Veterinary Officer to all veterinary surgeons, known to be practicing in the Protection Zones (Form BT15).
A small number of leaflets (Form BT 16) should be enclosed.

These leaflets may be handed to owners of infected premises and to others on request in order that all persons in the protection and surveillance zones are fully informed of the restrictions in force and make any arrangements required for the proper implementation of the necessary measures.
## Appendix I

### A. Equipment required for the investigation of suspected Bluetongue

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<th>ITEM</th>
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</thead>
<tbody>
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<td>1.</td>
<td>PROTECTIVE CLOTHING</td>
</tr>
<tr>
<td>a)</td>
<td>Rubber boots (with shallow treads for easy cleaning and disinfection)</td>
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<td>b)</td>
<td>Overalls (Disposable) pcs</td>
</tr>
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<td>c)</td>
<td>Waterproof coat and trousers pcs</td>
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<tr>
<td>d)</td>
<td>Safety helmets pcs</td>
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<tr>
<td>e)</td>
<td>Gloves (Disposable) pkt @ 100 pcs</td>
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<tr>
<td>f)</td>
<td>Face masks (Disposable) pcs</td>
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<tr>
<td>g)</td>
<td>Ear protectors pcs</td>
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<td></td>
<td>Eye protectors</td>
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<td>2.</td>
<td>EQUIPMENT FOR POST MORTEM EXAM AND COLLECTION OF DIAGNOSTIC SAMPLES</td>
</tr>
<tr>
<td>a)</td>
<td>Sharpening steel</td>
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<tr>
<td>b)</td>
<td>Scalpel handle and blade (Disposable) pkt</td>
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<tr>
<td>c)</td>
<td>Scissors</td>
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<tr>
<td>d)</td>
<td>Forceps</td>
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<td>e)</td>
<td>Gauze (for cleaning feet) rolls</td>
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<tr>
<td>f)</td>
<td>Post mortem knives</td>
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<td>g)</td>
<td>Metal outer containers</td>
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<tr>
<td>h)</td>
<td>Packing materials</td>
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<td>i)</td>
<td>Adhesive waterproof tape</td>
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<tr>
<td>j)</td>
<td>Adhesive Labels</td>
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<tr>
<td>3.</td>
<td>EQUIPMENT FOR CLINICAL EXAMINATION</td>
</tr>
<tr>
<td>a)</td>
<td>Colored marking spray</td>
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<tr>
<td>b)</td>
<td>Syringes 5 ml (Disposable) pcs</td>
</tr>
<tr>
<td></td>
<td>Syringes 10 ml (Disposable) pcs</td>
</tr>
<tr>
<td></td>
<td>Syringes 20 ml (Disposable) pcs</td>
</tr>
<tr>
<td>c)</td>
<td>Needles (Disposable) pcs</td>
</tr>
<tr>
<td>d)</td>
<td>Clinical thermometers pcs</td>
</tr>
<tr>
<td>4.</td>
<td>EQUIPMENT FOR THE COLLECTION OF BLOOD</td>
</tr>
<tr>
<td>a)</td>
<td>Vacuum tubes for serum pcs</td>
</tr>
<tr>
<td>b)</td>
<td>Vacuum tubes with EDTA pcs</td>
</tr>
<tr>
<td>c)</td>
<td>Vacuum tube needles pcs</td>
</tr>
<tr>
<td>d)</td>
<td>Vacuum tube holders pcs</td>
</tr>
<tr>
<td>5.</td>
<td>EQUIPMENT TO KILL ANIMALS FOR DIAGNOSTIC PURPOSES</td>
</tr>
<tr>
<td>a)</td>
<td>Somulose (sodium quinosarbitone) 25 ml</td>
</tr>
<tr>
<td>b)</td>
<td>T61</td>
</tr>
<tr>
<td>c)</td>
<td>Captive bolt pistols (annex I)</td>
</tr>
<tr>
<td>d)</td>
<td>Suitable ammunition</td>
</tr>
<tr>
<td>e)</td>
<td>Portable high voltage stunning – killing for small ruminants and pigs</td>
</tr>
</tbody>
</table>
### 6. OTHER ITEMS OF EQUIPMENT

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Marker pen</td>
</tr>
<tr>
<td>b) Ballpoint pen</td>
</tr>
<tr>
<td>c) Pencils</td>
</tr>
<tr>
<td>d) Note pads</td>
</tr>
<tr>
<td>e) Hand torch with spare batteries &amp; bulbs</td>
</tr>
<tr>
<td>f) Trays (plastic or metal)</td>
</tr>
<tr>
<td>g) Metal boxes</td>
</tr>
<tr>
<td>h) Cooling boxes with cool packs</td>
</tr>
</tbody>
</table>

### 7. EQUIPMENT FOR ENTOMOLOGICAL INVESTIGATIONS

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ondersteepoort Type Black Light traps</td>
</tr>
</tbody>
</table>

### B. THE GENERIC LIST OF THE STAMPING OUT EQUIPMENT REQUIRED BY EACH LOCAL DISEASE CONTROL CENTER STORE

<table>
<thead>
<tr>
<th>A / A</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PROTECTIVE CLOTHING</td>
<td></td>
</tr>
<tr>
<td>a) Rubber boots (with shallow treads for easy cleaning and disinfection)</td>
<td></td>
</tr>
<tr>
<td>b) Overalls (Disposable) pcs</td>
<td></td>
</tr>
<tr>
<td>c) Waterproof coat and trousers pcs</td>
<td></td>
</tr>
<tr>
<td>d) Safety helmets pcs</td>
<td></td>
</tr>
<tr>
<td>e) Gloves (Disposable) pkt @ 100 pcs</td>
<td></td>
</tr>
<tr>
<td>f) Ear protectors pcs</td>
<td></td>
</tr>
<tr>
<td>g) Eye protectors</td>
<td></td>
</tr>
</tbody>
</table>

| 2. EQUIPMENT FOR POST MORTEM EXAM AND COLLECTION OF DIAGNOSTIC SAMPLES |
| a) Sharpening steel |
| b) Scalpel handle and blade (Disposable) pkt |
| c) Scissors |
| d) Forceps |
| e) Gauze (for cleaning feet) rolls |
| f) Post mortem knives |
| g) Metal outer containers |
| h) Packing materials |
| i) Adhesive waterproof tape |
| j) Adhesive Labels |

<p>| 3. EQUIPMENT FOR CLINICAL EXAMINATION |
| a) Colored marking spray |
| b) Syringes 5 ml (Disposable) pcs |
| Syringes 10 ml (Disposable) pcs |</p>
<table>
<thead>
<tr>
<th><strong>19</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Syringes 20 ml (Disposable)</strong> pcs</td>
</tr>
<tr>
<td><strong>c)</strong> <strong>Needles (Disposable)</strong> pcs</td>
</tr>
<tr>
<td><strong>d)</strong> <strong>Clinical thermometers</strong> pcs</td>
</tr>
</tbody>
</table>

### 4. EQUIPMENT FOR THE COLLECTION OF BLOOD

| a) **Vacuum tubes for serum** pcs |
| b) **Vacuum tubes with EDTA** pcs |
| c) **Vacuum tube needles** pcs |
| d) **Vacuum tube holders** pcs |

### 5. EQUIPMENT TO KILL ANIMALS FOR DIAGNOSTIC PURPOSES

| a) **Somulose (sodium quinosarbitone)** 25 ml |
| b) **T61** |
| c) **Captive bolt pistols** |
| d) **Suitable ammunition** |
| e) **Portable high voltage stunning – killing for small ruminants and pigs** |
| f) **Flexible pithing rod** |

### 6. OTHER ITEMS OF EQUIPMENT

| a) **Marker pen** |
| b) **Ballpoint pen** |
| c) **Pencils** |
| d) **Note pads** |
| e) **Hand torch with spare batteries & bulbs** |
| f) **Trays (plastic or metal)** |
| g) **Metal boxes** |
| h) **Cooling boxes with cool packs** |

### 7. EQUIPMENT FOR ENTOMOLOGICAL INVESTIGATIONS

| **Ondersteepoort Type Black Light traps** |
### APPENDIX II

**AUTHORIZED INSECTICIDES**

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Active ingredient</th>
<th>Formulation</th>
<th>Dilution rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABATE (L)</td>
<td>Temephos 50%</td>
<td>E/C</td>
<td>2cc/1 litre water</td>
</tr>
<tr>
<td>NEOCIDOL 60 (A)</td>
<td>Diazinon 60%</td>
<td>E/C</td>
<td>100cc/5 litres</td>
</tr>
<tr>
<td>ECOFLEECE (A)</td>
<td>Cypermethrin 10%</td>
<td>E/C</td>
<td>1cc/1 litre water</td>
</tr>
</tbody>
</table>

L= Larvacide  
A= Adulticide  
E/C= Emulsifiable concentrate

Temephos can be sprayed on breeding sites of Culicoides. It does not affect fish in pools and environment.

Neocidol is used in the above dilution for animal premises.

Ecofleece can be sprayed directly on the animals as the withholding period for milk is nil and meat is 3 days only.