



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL
Unit 04 - Veterinary Control Programmes

SANCO/3849/2008

*Programmes for the eradication, control and monitoring of certain
animal diseases and zoonoses*

Eradication programme of Classical Swine Fever

Approved* for 2009 by Commission Decision 2008/897/EC

Bulgaria

* in accordance with Commission Decision 90/424/EEC



REPUBLIC OF BULGARIA
MINISTRY OF AGRICULTURE AND FOODS

PROGRAMME
for the
Control and Eradication Classical Swine Fever in Republic of Bulgaria
2009

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1. Identification of the programme

Member State: Republic of Bulgaria

Disease (¹): Classical Swine Fever (CSF)

Year of implementation: 2009

Reference of this document: National Veterinary Service (NVS) of Bulgaria

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2. Historical data on the epidemiological evolution of the disease:

Despite prophylactic overall vaccinations which have been performed in the whole country for many years, sporadic outbreaks of CSF have occurred in Bulgaria every year. After a gradual drop in the number of CSF outbreaks between 1996 and 1999 down to just one outbreak per year in 2000 and 2001, the CSF situation changed drastically in 2002.

Because of serious deficiencies in performing prophylactic vaccination (due to various reasons) and illegal trade in live pigs, 32 outbreaks of CSF were registered in 14 of the 28 administrative districts of Bulgaria in 2002.

Then, in 2003 16 CSF outbreaks in 4 districts were observed, while in 2004 the number of CSF cases was only 2 in the domestic pig population. However and for the first time since 1996, there were 48 cases of CSF identified in the wild boar (wild pig) population of 2 districts.

In 2005, serious measures for confinement and containment of CSF were taken. Besides the continuation of regular prophylactic vaccination of all domestic pigs in the country these included the ban of animal markets under an Order issued by the Minister of Agriculture and Forestry. Furthermore, a vaccination campaign (two placing of baits within two weeks) was performed within the wild boar (wild pig) population, because 88 CSF cases found in wild boar of 7 administrative districts of the country. As a result of the measures taken, no outbreak was detected in the domestic pig population of Bulgaria in 2005.

However, during 2006 seven outbreaks of CSF were found in domestic pigs of which six happened in the administrative district of Yambol and one in the administrative district of Bourgas. On the other hand, no CSF cases in the wild boar (wild pig) population have been observed since the beginning of the last hunting season in 2006 until now. The oral vaccination was continued in 2006 by performing two vaccination campaigns within wild boar population.

During the first 3 months of 2007, there were 3 outbreaks of CSF of which two were observed in East-Balkan pig herds in the region of Shumen and one in domestic pigs (family

farm of category B) in the region of Yambol.

There are no any cases of classical swine fever since 1-st of March 2007 in this country.

Since 2006 virus isolates from various regions of the country were generally sent for genome typing to the Community Reference Laboratory (CRL) for Classical Swine Fever at Hanover. This included also a 2004 isolate from wild boar of the Pernik district.

According to the findings of the CRL all isolates belong to the cluster of 2.3 of CSF strains. In more detail, the isolates of 2006 found in Yambol were classified as 2.3 Spante, confirmed again in 2007 by one isolate. The 2006 isolate from Bourgas was described as 2.3 Uelzen (or otherwise called Europe). The two 2007 isolates from the Shumen region were just a bit different from the other isolates and therefore named 2.3 Bulgaria. The maps show the geographical areas from which the CSF isolates originated.

However, the review on genome typing carried out by the CRL on the 30 of August 2007 needs further interpretation. The isolate so far classified as 2.3 Uelzen seems to be identical with 2.3 Spante. In addition, 2.3 Spante was also found in the wild boar population in 2004 at Pernik (on the border with Serbia). This very recent review has not been reproduced in the maps above.

Until now there is not enough epidemiological data available concerning the identification of the route of entry of CSF into Bulgaria's pig population. In addition, more information is needed as regards the spreading of the virus and transfers between different holdings, regions or various pig populations.

As regards the latter, Bulgaria distinguishes now between:

- a) Industrial pig holdings, representing about half of the country's domestic pig population (see Annex II, map 1, table 1),
- b) Family farms, type A (bio security established) and B (bio security still absent) (see Annex II, map 2, table 2 and 3),
- c) Backyard holdings (see Annex II, map 4, table 4),
- d) East Balkan pig herds (see Annex II, map 5, table 5),
- e) Wild Boar population (see Annex I, map 5, table 6).

The new categorisation of Bulgaria's pig population is based on the risk analysis concerning the observed most recent introduction of CSF into Bulgaria's pig population and forms the basis of the continued strategy for proving the absence of circulating CSF field virus.

According to the data available from intensive sampling and testing carried out countrywide since 2006 when the prophylactic vaccination of the domestic pig population was banned, it seems evident that at least in the industrial pig holdings neither sero-conversion due to eventually circulating CSF field virus strains or clinical signs of CSF have been detected.

Furthermore, it seems appropriate to concentrate all efforts on family farms, in particular type B and backyard holdings, where there is currently a clear deficiency in biosecurity and lack of understanding of the pig farmers or keepers as regards access of their pigs to waste of animal origin (such as catering waste), thus leading to single outbreaks of CSF.

In addition, the Bulgarian specific type of holding free ranged East Balkan pigs in certain municipalities of three regions (Shumen, Bourgas and Varna) needs particular attention, considering that these pigs might have direct or indirect contact with wild boar, therefore developing CSF in two herds in the administrative district of Shumen (see Annex II, map No.5, Table 5).

Finally, the wild boar population of BG, although currently under prophylactic vaccination against CSF represents a considerable risk, taking into consideration that about 37% of the animals sampled and tested in the first two weeks of 2007 show sero-conversion. It is yet not quite clear, whether sero-conversion is due to circulating CSF field strains or due to the vaccination campaign. In addition, the CSF situation in both, the domestic pig and wild boar population in the neighbouring countries represents a high risk also for Bulgaria, in particular for its wild boar population (see table 6.6.2).

Overall it is important to note that there are still some elderly domestic pigs, in particular in the East Balkan pig population, born before the ban of vaccination showing sero-conversion when tested.

3. Description of the submitted programme :

In accordance with Commission Decision 2006/805/EC this programme will be applied on the whole territory of the Republic of Bulgaria throughout 2008, taking into consideration that:

- a) Currently there is no final evidence that CSF field virus is not circulating in Bulgaria's pig population, in particular in family farms type B, backyard pigs, East Balkan pig herds and in wild boar,
- b) Biosecurity needs to be improved at family farms type B and in backyard holdings,
- c) In certain municipalities of three regions of the country East-Balkan pigs are raised in herds and held on pastures; direct or indirect contact with wild boar cannot be excluded,
- d) During the hunting season 2004/2005 CSF cases among wild boar were detected in 7 districts on the territory of the Republic of Bulgaria, prophylactic oral vaccination campaigns are carried out and sero-conversion is observed; however more evidence is necessary for the interpretation of those test results,
- e) Results obtained from genotyping of virus isolates collected between 2004 and 2008 need further epidemiological analysis and interpretation.

Basic elements of this Programme are:

- Active clinical monitoring of pigs for CSF, including a targeted sampling and testing scheme;
- Continued enforcement of the ban of prophylactic vaccination against CSF of the domestic pig population, including East-Balkan pigs;
- Quick and effective application of the required measures for control and eradication of any outbreaks of the disease that have emerged meanwhile;
- Scientific analysis of epidemiological data concluding on present and eventual future measures for control and eradication of CSF in Bulgaria.

When implementing this programme the competent authorities will also take into consideration:

1. The different types of holding pigs in Bulgaria described under 2.) above;
2. The results from the scientific epidemiological analysis conducted for ascertaining the CSF transfer mechanism and the geographical spread of the disease;
3. The presence of wild boar population all over the territory of the country, which might have direct or indirect contact with the herds of East-Balkan pigs;
4. The lack of big natural or artificial barriers as regards the movement of wild boar over the territory of the country;
5. Control over the registration of pig farms, the movement of pigs, their identification and the herd registers linked with the application of a corresponding electronic database;
6. Control over the oral vaccination campaign of the wild boar population, in particular concerning the process of the distribution of the baits, their uptake and effects on the CSF status of the population linked with the use of the epidemiological database established under Commission Decision 2003/257/EC (OJ L 95, 61).

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the Programme: 01.01.2009 – 31.12.2009

<input checked="" type="checkbox"/> Control	<input checked="" type="checkbox"/> Eradication
<input checked="" type="checkbox"/> Testing	<input checked="" type="checkbox"/> Testing
<input checked="" type="checkbox"/> Killing and rendering of positive animals	<input checked="" type="checkbox"/> Killing and rendering of positive animals
<input checked="" type="checkbox"/> Slaughtering of contact animals and HT	<input checked="" type="checkbox"/> Slaughtering of contact animals and HT
<input checked="" type="checkbox"/> Vaccination of wild pigs	<input checked="" type="checkbox"/> Monitoring
<input checked="" type="checkbox"/> Monitoring	<input type="checkbox"/> Disposal of products
<input type="checkbox"/> Disposal of products	

Monitoring or surveillance

Note: - Yes

- No

4.2. Designation of the central authority charged with supervising and co-ordinating the departments responsible for implementing the programme :

1. The National Veterinary Service (NVS) at the Ministry of Agriculture and Foods:
 - Central Competent Authority for the control of infectious notifiable diseases, interacts with the institutions involved in the programme at

national level, implements the 2009 CSF programme and reports to the EC and the other MS.

2. The 'Animal Health' Directorate at the NVS headquarters:
 - Elaborates the CSF control strategy and implements the 2009 CSF programme,
 - Coordinates actions of all authorities involved in the programme,
 - Collects information and prepares reports on the outcome of the programme.
3. The animal health officials at the Regional Veterinary Services (RVSS) of the NVS:
 - Enforce the programme on both, the domestic and wild boar population at regional level, monitor the actions of all authorities involved at local level and report to the NVS. HQ registered
 - Supervise the two rendering plants at Varna and Shoumen and take samples from dead pigs suspicious of CSF or killed for reasons of CSF eradication.
4. The public health officials at the Regional Veterinary Services (RVSS) of the NVS in charge of meat inspection:
 - Carry out ante and post mortem inspection in accordance with the rules laid down by Council Regulation (EC) 854/2004, Article 5 and Annex I, in addition carry out the documentary and identity checks in accordance with Commission Decision 2006/805/EC,
 - Ensure health marking of the meat in accordance with Commission Decision 2006/805/EC, Article 5 on pig meat of Bulgarian origine,
 - Carry sampling of pigs for CSF according to the sampling scheme 2009, and ensure the traceability of the samples back to the farm of origin,
 - Notify the NVS in case of suspicion of CSF and forward corresponding samples to the NRL Sofia,
 - In case of CSF declare meat of pigs unfit for human consumption in accordance with Council Regulation (EC) 854/2004, Annex I, Section II, chapter V, 1 e) and seizure the meat accordingly,
 - Check the cleaning and disinfection of means of pig transports in accordance with the provisions laid down by Commission Decision 2006/805/EC, Article 8).
5. The animal health officials at the Municipal Veterinary Services (MVSs) of the NVS:
 - Enforce the programme at local level; carry out clinical surveillance (according to the clinical surveillance scheme 2009) and sampling of the domestic pig population (according to the sampling scheme 2009) in cooperation with the registered veterinary practioners involved in the programme and approved according to the rules laid down by Directive 64/432/EEC, Articles 2, 2m) and 14 (3) B),
 - In case of any suspicion of CSF tacking samples in accordance with the rules laid down by Commission Decision 2002/106/EC

- in addition carry out the documentary and identity checks in accordance with Commission Decision 2006/805/EC in the context of movement of pigs inside Bulgaria,
 - Ensure the traceability of the samples back to the farm of origin,
 - Record results of clinical surveillance in BG's Traceability database system,
 - Monitor the improvement and enforcement of biosecurity measures at the farms, including cleaning and disinfection procedures based on the principles laid down in Council Directive 2001/89/EC, Article 12 and Annex II,
 - Enforce the rules on holding registration, identification of the pigs and the control of their movements, including closing of holdings and seizure of pigs in case of breach or violation of rules in accordance with the rules laid down by Article 139a of The Law of Veterinary Activity and Council Regulation (EC) 882/2004,
 - Supervise the distribution of baits for oral vaccination of the wild boar population on the areas near to the borders of the country in cooperation with the institutions listed under 3,5,6 and 7),
 - Record the results of surveillance measures including sampling of the wild boar population in the wild boar database.
6. National Forestry Agency:
- Cooperates with the institution listed under 2) on the planning for the oral vaccination of wild boar population and its surveillance for 2009,
 - Implements its parts of the 2009 programme as regards the surveillance of wild boar.
7. Regional Forestry Directorates at NFD:
- Coordinates the distribution of the baits and the surveillance measures concerning wild boar at regional level in the areas near to the borders of the country together with the institution listed under 3), and carry out the baiting on the spot in areas of their direct competence,
 - In the certain geographical areas provides carcasses or material of wild boar (shot at hunting, fallen stock or crashed in car accidents) for inspection and sampling to the institution listed under 5).
8. National Union of Hunters and Anglers
- Carries out the baiting on the spot and performs surveillance of the oral vaccination campaign in this context,
 - Reports to the institution listed under 5) and 7),
 - Provides carcasses or material of wild boar (shot at hunting, fallen stock or crashed in car accidents) for inspection and sampling to the institution listed under 5).
9. The National Reference Laboratory (NRL) for CSF Sofia:
- Processes samples collected from both, domestic pigs and wild boar for CSF virus isolation and serology testing, records test results in the Traceability database system and reports to the NVS,

- Tests and methods used are presented in chapter 10 below (Table),
- Undertakes confirmation tests on samples with doubtful test results send by the Regional Laboratories,
- Monitors the procedures at the Regional Laboratories and organises ring-tests with them
- Forwards virus isolates to the CRL for CSF, Hanover and takes part in ring-tests.

10. The Regional CSF Laboratories at the Institute in Sofia , Stara Zagora and Veliko Turnovo

- Perform CSF serology testing on samples from domestic pigs collected according to the sampling plans presented in tables(Chapter 7 below) record test results in the Traceability database system and report to the NVS,
- Tests and methods used are presented in chapter 10 below, tests limited to ELISA antibody testing,
- Forward samples with doubtful test results to the NRL Sofia

11. The CRL for CSF at Hanover

- Undertakes genotyping of virus isolates forward by the NRL, Sofia,
- Provides the NRL with test materials on request from the Bulgarian side,
- Organises ring tests in which the NRL Sofia will participate.

12. The Veterinary Public Health Laboratories in Bulgaria

- Forward samples from wild boar -received in the context of trichinella examination- to the NRL for CSF, ensure the traceability of the sample and include all the data necessary for the monitoring of CSF in wild boar (see monitoring database above).

13. The Veterinary Faculties at Sofia and Stara Zagora

- Involved in the scientific and epidemiological analysis of the CSF control programme for 2009,
- Provide five doctorate students to prepare the following thesis:

Criteria for demonstrating the absence of circulating field virus strains of Classical Swine Fever virus in Bulgaria's domestic pig population and the oral vaccination of wild boar in some regions in Bulgaria:

1. The active and passive monitoring and surveillance of industrial pig herds
2. The specific situation concerning monitoring and surveillance of family farms of different type and pigs kept at backyards
3. The specific situation concerning monitoring and surveillance of the East Balkan pig herds

4. The oral vaccination of the wild boar population in the regions near to the borders and control of its immune status
5. Diagnostic methods applied and the interpretation of laboratory results.

14. The Ministry of Internal Affairs:

- Assists in the administrative and security measures in case of suspicion or confirmation of CSF.

15. The Farmers' Union and the Pig Breeders' Associations

- Inform their members about the CSF control programme and support the NVS to perform active clinical surveillance scheme and the sampling and testing schemes where necessary. A video on CSF in Bulgarian language will be part of the public information campaign.
- The association veterinarians take part in the active surveillance and clinical observations of the piggery farms.

4.3. Description and delimitation of the geographical and administrative areas in which the programme is to be implemented

The programme will be enforced on the whole territory of Bulgaria, involving all of its 28 districts in accordance with Commission Decision 2006/805/EC, Annex III.

4.4. Measures implemented under the programme

4.4.1. Measures and terms of legislation as regards the registration of holdings:

In Art.51 of the Law on Veterinary Activities it is stipulated that animals are subject to identification and the holdings are subject to registration. NVS is the official competent authority responsible for the identification of the animals. A computerized information system supports the recording and processing of the data concerning the identified animals and their movements as well as the registered holdings and electronic herd register. The latter one will also be used for the necessary traceability of the sampling and testing process and the recording of the active clinical surveillance of the domestic pig population.

Ordinance No 61 transposes Council Directive 92/102/EEC into Bulgarian legislation. Art 3 sets out the details concerning the identification of Animals and the registration of holdings: The registration of the holdings (including the pig-keeping ones) is carried out by the authorities of the National Veterinary Service (NVS) or by veterinary specialists - private practitioners duly authorized by the NVS.

All animal holdings, where large ruminants, small ruminants or pigs are kept are subject to mandatory registering in:

- The registry of the owner;
- The registry of the licensed veterinary practitioner's unit /area of servicing/;
- The registry of the municipal veterinary service;
- The registry of the Regional Veterinary Service (RVS);

The computerised traceability data-base administered by the NVS headquarters in Sofia.

The code (serial) registration number of the holding is provided once and stays the same no matter of the species and types of animals kept in that holding. All data shall be kept at least three years after the cessation of the activity of certain animal holding or after sale, slaughter, death etc. of the last animal kept in that holding.

The new categorisation of pig holdings in the context of the eradication of CSF described under 2) above has no effect on the obligation of pig farmers or keepers as regards holding/herd registration, the identification of animals and their movements.

4.4.2. Measures and terms of legislation as regards the identification of animals:

Ordinance No 61 also lays down the terms and procedures to be complied with concerning the identification of the animals.

Pigs are identified by individual ear-tag (bearing either unique serial number or, in case of fattening pigs intended for direct slaughter, the registry number of the pig holding of fattening). Any such ear-tags must be and are delivered and distributed by the NVS. Displacing or reuse of ear-tags placed on an animal is not permitted. The identification of the animals has to be carried within 20 days after birth or when leaving the holding at least. Only in case of pigs for fattening in industrial farms the identification can be carried out at the latest before they leave for slaughter with green ear-tags indicating the number of the holding.

According to the Law on Veterinary Activities (LVA), owners of farm animals are obliged to:

- ensure availability of their animals to be identified /ear-tagged/, for vaccinations and for diagnostic test purposes;
- ensure access to animal holding and the animals therein for the state veterinarian inspecting them;
- comply with and meet the requirements related moving and transportation of animals.

There is a ban imposed on any movement of unidentified animals to markets, slaughterhouses, fairs, exhibitions, competitions or other holdings or settlements.

4.4.3. Measures and terms of legislation as regards the notification of the disease:

Classical Swine Fever is subject to mandatory notification in accordance with Art 50 of the Law on Veterinary Activities.

Ordinance No 4 of the 17.02.2007 on prophylactics, containment and eradication of CSF transposes Council Directive 2001/89/EC into Bulgarian legislation. It stipulates that CSF is a notifiable disease and that CSF outbreaks have to be reported to the European Commission and to the Member States.

The report shall contain the following information:

- a) the outbreaks of CSF, which have been confirmed in holdings;
- b) the outbreaks of CSF, which have been confirmed in slaughterhouse or in transport means when transporting pigs;

- c) the primary cases of CSF confirmed in wild pigs;
- d) the secondary cases of CSF in wild pigs in affected areas;
- e) the results of the epizootic enquiry carried out.

The reports provide further details as laid down by Council Directive 2001/89/EC Annex I.

According to Bulgarian legislation (Law of Veterinary Activities Article 132 (1) point 8) the notification has to be made by the owner or keeper of the pigs immediately to the holding veterinarian or the municipal veterinary service in case of suspicion of a disease or change of the health status of his animals.

4.4.4. Measures and terms of legislation in case of a positive result:

4.4.4.1. Measures in case of suspicion of CSF in domestic pigs

Ordinance No 4 transposes the provisions of Directive EC 2001/89 Art 4: The following measures shall be taken, in particular when the active clinical surveillance and serology monitoring of the CSF control programme 2009 give a doubtful result for a particular holding:

1. Where a holding contains one or more pigs suspected of being infected with Classical Swine Fever virus, the responsible official veterinarian shall prohibit the access to the farm and shall immediately notify the respective state veterinarian for measures to be taken for the diagnosis to be confirmed or the suspicion rejected.
2. The state veterinarian shall visit the farm without delay, shall make a check on the spot of the register and the identification marks of the pigs raised on the farm, shall prohibit the access to the farm and shall give instructions, as follows:
 - a) all the pigs in the various categories on the pig-breeding farm are to be counted and a list compiled of the pigs already dead, sick or likely to be infected (the contact animals) in each category; the list shall be updated every day to take account of: the pig births, the pigs that have got sick and the deaths during the period of confirmation of the diagnosis or rejection of the suspicion. This list is submitted daily for a check to the responsible state veterinarian.
 - b) The movement of all the pigs on the farm shall be forbidden, and the movement of pigs outside the farm, including for slaughter purposes, shall be forbidden too;
 - c) no sows or pigs may enter or leave the farm and may, if necessary, extend the ban to cover other species of animals, in case there are any raised on the farm;
 - d) no pig carcasses may leave the farm;
 - e) no meat, pig products, semen, ova and embryos of pigs, animal feed, instruments and equipment (utensils), materials or wastes likely to transmit Classical Swine Fever may leave the farm;
 - f) access shall be denied for any unauthorised persons, that are not engaged in the production;
 - g) the movement of the workers to or from the farm shall be done only through a "filter", and the movement of the vehicles to or from the farm shall be done only through a disinfecting installation;
 - h) appropriate means of disinfecting shall be used at the entrances and exits of the buildings housing pigs and of the farm itself; any person entering or leaving a pig farm shall fulfil appropriate hygienic measures necessary to reduce the risk of spread of the Classical Swine Fever Virus. Furthermore, all

means of transportation shall be carefully disinfected before leaving the farm. Cleaning and disinfection measures follow the principles as laid down by Council Directive 2001/89/EC Annex II.

3. The state veterinarian shall take and send samples for laboratory tests for confirmation of the CSF diagnosis or rejection of the suspicion as described under chapter 4.4.7.1.1) below. An epizootic inquiry shall be made.
4. When the pig-breeding farm subject to suspicion concerning the presence of Classical Swine Fever is situated in an area with high density of the population of pigs, the state veterinarian may give instruction for a ban on the movement in the remaining farms too until there is confirmation of the diagnosis or a rejection of the suspicion.
5. In areas with a high density of pigs the competent authority may apply Directive 2001/89/EC Art 4 (3) if the epidemiological situation justifies this measure and the conditions laid down by the Directive are fulfilled.
6. The state veterinarian shall have the right to impose a control zone both within the pig-breeding farms and at the borders and can introduce measures identical with those imposed on the farm subject to suspicion of CSF infection.
7. The state veterinarian shall have no right to lift the measures imposed until the results from the laboratory tests officially rejecting the suspicions for the presence of CSF infection have not been received.

4.4.4.2. Measures in case of confirmation of CSF in domestic pigs:

In case of CSF confirmation the measures listed in Council Directive 2001/89/EC Art 5 (1 a – i) – transposed by Ordinance No 4 are:-

1. All pigs in the holding have to be killed without delay in such a way as to avoid the risk of spread of the Classical Swine Fever Virus during their transport or killing;
2. A sufficient number of samples have to be taken, in accordance with the diagnostic manual, from the pigs killed in order that the manner of introduction of the Classical Swine Fever Virus into the farm and the length of time during which it may have existed on the farm to be established;
3. The carcasses of pigs which have died or have been killed have to be destroyed under official supervision;
4. The meat of pigs, raw materials thereof and products of pigs slaughtered during the period between the probable introduction of the disease to the pig holding and the taking of official measures have to be traced and processed under official supervision;
5. Semen, ova and embryos of pigs collected from the holding during the period between the probable introduction of the disease and the taking of measures have to be traced and the destroyed under official supervision in such a way as to avoid the risk of spread of the CSF Virus;
6. All substances and waste likely to be contaminated, such as feeding stuff, have to be subjected to a treatment ensuring the destruction of the CSF Virus;
7. All single-use materials, which may be contaminated with the CSF virus, have to be destroyed in accordance with the instructions of the state veterinarian;
8. After the pigs have been disposed of, mechanical cleaning and disinfecting of the buildings for housing the pigs and premises used, the vehicles used for transporting them and their carcasses, the equipment, bedding, manure and excrements has to

be performed;

9. In case of a primary outbreak of the disease, the CSF Virus isolate has to be sent to the EU Reference Laboratory in Hanover (Germany) to identify the genetic type.
10. An epizootic inquiry has to be organised.

4.4.4.3. Measures in case of suspicion and confirmation of CSF in wild boar:

In accordance with Council Directive 2001/89/EC Art 15 and Commission Decision 2006/805/EC the following measures have to be applied on the whole territory of Bulgaria, in particular when the surveillance and virology testing of the wild boar population under the 2008 CSF control programme give a positive result:

1. NVS has to immediately inform all owners of domestic pigs and hunters within a radius of 10 km from the place where the suspect wild boar was found or shot and investigate and test all wild boar found dead or shot thereafter;
2. In case of CSF confirmation:
 - an expert group, including veterinarians, hunters, wildlife biologists and epidemiologists shall be established by order of the Director General of the NVS to assist him in:
 - studying the epidemiological situation and defining the infected area as laid down by Directive 2001/89/EC Art 16 3 b);
 - establishing appropriate measures to be applied in the infected area, including suspension of hunting, a ban on feeding the wild pigs or oral vaccination, if appropriate;
 - carrying out audits to verify the effectiveness of the measures adopted to eradicate CSF from the infected area;
 - all pig holdings in the defined area have to be placed under official surveillance and a census has to be carried out; the census has to be kept up to date by the owner. The information in the census has to be produced on request and is checked at each inspection. With regard to open-air pig holdings, the first census carried out may be done on the basis of an estimate;
 - all pigs on the holding have to be kept in their living boxes or some other place, where they can be isolated from the wild boar. Wild boar must not have access to any material that may subsequently come in contact with the pigs on the holding;
 - no pigs enter or leave the holding without permission of the state veterinarian, who will take into consideration the epidemiological situation;
 - appropriate means of disinfecting have to be placed at the entrances and exits of the buildings housing domestic pigs and of the holding as a whole;
 - appropriate hygienic measures have to be applied by all persons coming in contact with wild boar, to reduce the risk of spread of the CSF virus. The measures can include a temporary ban to enter the pig holdings on persons having been in contact with wild boar such as hunters, hunter- and forest supervisors;
 - all dead or sick pigs with a CSF symptoms on the holding have to be tested for the presence of CSF virus
 - no meat or any part of wild boar, whether shot or found dead, as well as any material or equipment, which could be contaminated with the CSF virus has to be brought into the pig holding;
 - pigs, their semen, embryos or ova shall not be moved from the infected area for the

purpose of trade;

- all wild pigs shot or found dead in the defined infected area have to be inspected by the state veterinarian and samples taken for laboratory testing as regards the presence of the CSF virus applying the scheme described under chapter 4.4.7.1.7) below;
- the carcasses of all wild boar found CSF positive has to be processed under official supervision; in the latter case the CSF virus isolate has to be forwarded to the EU CSF Reference Laboratory for the typing of its genome;
- for collaboration in the establishment of control measures the neighbouring Member States or a third country will be duly notified, when the infected area is near the border.

4.4.5. Measures and terms of legislation as regards the different qualifications of animals and herds:

The decision of the state veterinarian to recognise a pig holding "as CSF suspected" has to be based on the criteria set out in Commission Decision 2002/106/EC Annex, chapter III (a-c).

4.4.6. Control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease and the regular inspection of the holdings or areas concerned:

For the control of the movements of pigs in the context of the CSF programme 2008 the Bulgarian Traceability-database will be used. The respective obligations of pig holders as regards the registration of holdings, the identification of the pigs and their movement control are described above.

The key obligations of the pig holders in the context above are listed in the table below, also showing the possible violations of the obligations, the administrative measures taken in case of violations and possible punitive actions in those cases.

Key requirements for the enforcement requirements concerning animal identification, holding registration, movement control and notification of diseases

Legal requirements	Kind of violation of the rule	Kind of administrative action in case of violation	Kind of punitive action in case of violation of the rule
<p>Legislation as regards the registration of holdings</p> <p>1. According to article 137, paragraph 1 of the Law on the Veterinary Activity (LVA) the owners of animal-holdings shall submit an</p>	<p>1. Absence of notification to the competent authority</p> <p>2. The holding operates before being registered by the competent authority</p>	<p>1. Written prescription to the applicant with a term for elimination of the shortcomings. Measure taken can include closure of holding and confiscation of animals, if necessary</p> <p>2. Punitive act for</p>	<p>1. Punitive measure according to article 417 of LVA - The owners of farm animals, who have not fulfilled their obligation, shall be fined with the amount of 20 BGN up to 50 BGN, and in the case of a repeated violation - with a fine</p>

<p>application for registration, conforming to a specimen to the director of RVS.</p> <p>2. According to article 26 paragraph 1 of ORDINANCE № 61 on the measures and procedures for identification of animals, registration of animal holdings and the availability to access the data base for identified animals and registered animal holdings (SG 47/09.06.2006) the owners of animal holdings, where swine are held, keep register on animals which includes updated information on all animal movement, their origin, the place of destination, the number of the individual means of identification and the date of the movement.</p>		<p>administrative infringement.</p>	<p>to the amount of 50 BGN up to 100 BGN.</p> <p>Where the violation has been committed by a legal person or by a sole proprietor, property sanctions shall be imposed from 100 BGN up to 300 BGN, and in the case of a repeated violation - property sanctions to the amount of 300 BGN up to 600 BGN.</p> <p>2. According to article 138, paragraph 2 of LVA the registration is deleted in case of serious or regular breaches of veterinary medical requirements</p>
<p>Legislation as regards the identification of animals</p> <p>1. According to article 139, paragraph 1, point 2 of LVA the removal of the individual ear tags is prohibited.</p> <p>2. According to article 27, paragraph 1 of ORDINANCE</p>	<p>1. Animals are not identified with ear tags by the competent authority.</p> <p>2. Displace of ear tags after placing.</p>	<p>1. Written prescription of the applicant with a term for elimination of the shortcomings.</p> <p>2. Punitive act for administrative infringement according to article 139 of LVA.</p>	<p>Punitive measure according to article 417 of LVA - The owners of farm animals, who have not fulfilled their obligation, shall be fined with the amount of 20 BGN up to 50 BGN, and in the case of a repeated violation - with a fine to the amount of 50 BGN up to 100 BGN.</p>

<p>№ 61 the identification of pigs is carried out by individual means of identification- ear-tags.</p>			<p>Where the violation has been committed by a legal person or by a sole proprietor, property sanctions shall be imposed from 100 BGN up to 300 BGN, and in the case of a repeated violation – property sanctions to the amount of 300 BGN up to 600 BGN.</p>
<p>Legislation as regards notification of the disease</p> <p>According to article 132, paragraph 1, point 8 of LVA the owners of farm animals shall notify immediately the veterinarian, who is servicing the animal holding for changes in the health status of the animals, of urgent slaughter carried out or of dead animals</p>	<p>1. The registered veterinarian or the competent veterinary services are not notified concerning an outbreak of a disease</p> <p>2. Competent authorities have no access to the holding.</p>	<p>Punitive act for administrative infringement according to article 132 of LVA</p>	<p>Punitive measures according to article 420 of LVA the owner of animals, violating the notification obligations/ breaching the ban shall be fined with the amount of 50 BGN up to 300 BGN, and in the case of a repeated violation – with a fine to the amount of 100 BGN up to 500 BGN.</p>
<p>Legislation as regards the measures in case of positive result</p> <p>According to article 132, paragraph 1, point 13 of LVA the owners of farm animals shall observe the prescriptions of the veterinarians, relevant to the application of the measures concerning prophylactics, containing and eradication of animal diseases.</p>	<p>1. The enforced restrictive measures are not respected.</p> <p>2. The prescriptions of the veterinarians, relevant to the application of the measures for limitation and eradication of CSF are not respected.</p>	<p>Punitive act for administrative infringement according to article 132 of LVA.</p>	<p>Punitive measures according article 415 of LVA on a person not applying a measure, imposed by the National Veterinary Service for the prophylactics, limitation and eradication of a contagious disease on the animals, shall be fined from 50 BGN up to 200 BGN, and in the case of a repeated violation - with a fine to the amount of 300 BGN up to 500 BGN.</p>

			Where as a result of the non-implementation of the measure have led to considerable material damages or a hazard to the health of a large number of people or animals, and in case the act is not a subject to a greater punishment, a fine from 1000 BGN up to 2000 BGN shall be charged, and in the case of a repeated violation - with a fine to the amount of 2000 BGN up to 4000 BGN
<p>Legislation as regards movement control</p> <p>According to article 139, paragraph 1, point 3 of the LVA transportation of animals without a veterinary medical certificate shall be prohibited.</p>	<p>Movement of pigs without a veterinary medical certificate.</p>	<p>Punitive act for administrative infringement according to article 139, paragraph 1, point 3 of LVA</p>	<p>Punitive measures according to article 420 of LVA where the violation has been committed by a legal person or by a sole proprietor, property sanctions shall be imposed from 300 BGN up to 500 BGN, and in the case of a repeated violation - property sanctions to the amount of 500 BGN up to 1000 BGN.</p>
<p>Legislation as regards control of the disease</p> <p>According to article 132, paragraph 1, point 9 and 13 of LVA the owners of farm animals shall provide an access to the animal-breeding holding and the animals of the</p>	<p>No access to the holding for performing clinical examination or sampling.</p>	<ol style="list-style-type: none"> 1. Prescription 2. Imposing of a ban 3. Punitive act for administrative infringement according to article 132 of LVA 	<p>Punitive measures according to article 415 of LVA who does not apply a measure, imposed by the National Veterinary Service for the prophylactics, containing and eradication of a contagious disease on the animals, shall be</p>

<p>veterinarian, who is servicing them and shall observe the prescriptions of the veterinarians, relevant to the application of the measures for prophylactics, containing and eradication of animal diseases</p>			<p>fined from 50 BGN up to 200 BGN, and in the case of a repeated violation - with a fine to the amount of 300 BGN up to 500 BGN.</p> <p>Where as a result of the non-implementation of the measure has led to considerable material damages or a hazard to the health of a large number of people or animals, and in case the act is not a subject to a greater punishment, a fine from 1000 BGN up to 2000 BGN shall be charged, and in the case of a repeated violation - with a fine to the amount of 2000 BGN up to 4000 BGN.</p>
<p>Legislation as regards control of disease in the slaughterhouse</p> <p>According to article 248, point 12 of LVA the persons, carrying out production, transportation, trade and placing on the market of raw materials and foods of animal origin in the establishments under Article 7, paragraph 2, p.5 and the establishments under Article 229, paragraph 1 shall inform the veterinarians for an</p>	<p>Absence of notification of the veterinary authorities for sick or dead animals during the ante mortem inspection and during their stay at the slaughterhouse.</p>	<p>Punitive act for administrative infringement according to article 248 of LVA.</p>	<p>Punitive measures according to article 439 of the LVA the persons, carrying out production, trade or placing on the market of raw materials or foods of animal origin, animal by-products and products, received from those, who do not fulfil an obligation shall be punished with a fine to the amount of 100 BGN up to 300 BGN, and in the case of a repeated violation - with a fine to the amount of 300 BGN up to 500 BGN.</p>

<p>arising danger for the health of people and the animals.</p>			<p>Where the violation has been committed by a legal person or by a sole proprietor, property sanctions shall be imposed to the amount of 500 BGN up to 1000 BGN, and at a repeated violation – property sanctions to the amount of 1000 BGN up to 3000 BGN.</p>
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As regards the regular inspection and clinical surveillance the state veterinarian or the registered veterinarian has to follow the criteria and procedures set out in Commission Decision 2002/106/EC Annex, chapter IV, A (2) including taking the body temperature and samples according to the sampling schemes (presented under chapter 7.1.1.2 below) for the different categories of pig holdings described under chapter 2) above.

4.4.7. Measures and terms of legislation as regards the control (clinical surveillance, testing, vaccination,) of the disease:

4.4.7.1. Control Procedures and Taking of Samples

4.4.7.1.1 Clinical inspection and sampling on pigs in suspected holdings

In case of CSF suspected holdings the criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, A, 1-7) have to be applied, in particular the sampling schemes for serological testing. In case of primary suspicion the same sampling key has to be applied for virological testing using the cell culture virus isolation technique or RT PCR.

4.4.7.1.2. Sampling of killed pigs following the confirmation of a CSF Outbreak

The criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, B, 1-3) have to be applied, in particular the sampling schemes for serological testing. In a primary outbreak the same sampling key has to be applied for virological testing using the cell culture virus isolation technique or RT PCR.

4.4.7.1.3. Sampling in case of culling pigs of a suspected holding as a preventive measure

The criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, C, 1-2) have to be applied, in particular the sampling schemes for serological testing. In case of a primary suspicion the same key has to be applied for virological testing using the cell culture virus isolation technique or RT PCR.

4.4.7.1.4 Control Procedures and sampling for authorisation of pig movements from holdings in protection or surveillance zones for slaughter or killing

The criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, D, 1-5) have to be applied, in particular the sampling schemes for serological testing. In a primary outbreak the same sampling key has to be applied for virological testing using the cell culture virus isolation technique or RT

PCR.

4.4.7.1.5 Control Procedures and sampling in a holding in relation to repopulation

The criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, E, 1-2) have to be applied, in particular the sampling schemes for serological testing.

4.4.7.1.6 Sampling in holdings in protection zones and surveillance zones respectively before lifting the restrictions

The criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, F and G respectively have to be applied, in particular the sampling schemes for serological testing.

4.4.7.1.7 Serological monitoring and sampling in areas, where CSF is suspected to occur or has been confirmed in wild boar

The criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter IV, H have to be applied, in particular the sampling schemes for serological testing. However, in the context of the 2008 CSF control programme the RT-PCR is also applied. The table in chapter 7.1.1.2 presents the number of samples expected per hunting district. In Annex III the model report template is shown, which will also form the basis for feeding the database on wild boar.

4.4.7.2. Collection and transport of samples

The general criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter V, A, 1-4) have to be applied.

The criteria and procedures for the collection of samples for virological tests set out in Commission Decision 2002/106/EC, Annex, chapter V, B, 1-3) have to be applied.

As regards the transport of samples the general criteria and procedures set out in Commission Decision 2002/106/EC, Annex, chapter V, C, 1-4) have to be applied.

4.4.7.3 Laboratory testing

4.4.7.3.1 Laboratory test for the detection of CSF antibodies - overview

For serology currently the commercially available ELISA test kits Bommeli E2 - sero and Bommeli ERNS-Marker R are used according to the instructions of the manufacturer. These tests will be performed at the Regional CSF laboratories in Stara Zagora and Velicko Turnovo as well as at the NRL Sofia.

The virus neutralization test according to chapter 3) of the CSF draft Manual (2002) of the CRL Hanover has been installed at the NRL Sofia.

4.4.7.3.2 Laboratory tests for the detection of CSF virus, viral antigen and genome - overview

Virus isolation using the PK15 cell culture technique as well as the Immune Labelling for the detection of CSF virus in cell cultures and the differential diagnosis of virus isolates have been established at the NRL Sofia. The test is performed in accordance with the CSF draft Manual (2002) of the CRL Hanover.

Fluorescent antibody test on thin cryostat sections of organs (tonsilles, ileum, spleen, kidney and retropharyngeal lymphnodes) is the current standard procedure. A commercially available conjugate (Cedi Diagnostics BV, Lelystad) is used for diagnostic purposes as well as the

CSF antigen ELISA produced by Bommeli and a diagnostic PCR as described in the draft Manual (2002) of the CRL Hanover are in use at the NRL Sofia

The genome typing of Bulgarian CSF virus isolates are performed at the CRL Hanover.

The overview on the targets relating to testing methods and target groups is provided in chapter the table in chapter 7.1.1.1).

4.4.7.3.3 Details on the laboratory tests performed in Bulgaria

Serology - Basic Principles and Diagnostic Value:

In pigs infected with the CSF virus antibodies can be found in the blood serum two-three weeks after the infection. In pigs that have got healthy again protective and neutralising antibodies can be found for years, even till the end of the pig's life. In ill animals in the end phase sometimes antibodies can be found too. In chronically ill pigs antibodies can be detected for several days at the end of the first month after the infection.

The infected foetus in the womb of the sow is immune-tolerant to the virus and does not produce any specific antibodies. During the first days after they are born their mother's antibodies might be detected in them, which are evidenced in the healthy piglets without viraemia for about two weeks. If antibodies are detected in piglets more than three months old, there is little possibility that they originate from the mother.

The detection of antibodies against the CSF virus in serum or plasma samples allows to be confirmed the diagnosis of CSF in facilities under suspicion, to be determined the period from the beginning of the outbreak of the infection and to be taken measures for surveillance and supervision control. The serological tests serve most of all for detection of CSF in recently infected stockbreeding facilities.

A small number of affected pigs with low titre of antibodies serve as an evidence for a recent infection (two-three weeks). A great number of affected pigs with high titre of antibodies mean that the virus has penetrated the stockbreeding facilities for a month at least. The location of the sero-positive pigs in the facilities may offer useful information about the way the CSF virus has penetrated into the facilities.

In spite of this, it is necessary precise evaluation and interpretation of the results from the serological tests to be made taking into account all clinical, virological and epidemiological data within the investigation, which is done in case of suspicion or confirmation of CSF.

The virus neutralisation test reaction (VNR) and ELISA are most suitable for serological diagnostics of CSF. The quality and effectiveness of the serological diagnostics done by the national laboratory are under constant control by means of intra-laboratory comparative test organised periodically by the Community Reference Laboratory, Hanover.

The VNR is based on defining the neutralising action of the antibodies in a serum sample on the virus, expressed as a neutralisation degree of 50%.

A certain quantity of the CSF virus is incubated at 37°C in serum with different degree of diluting. The serum is diluted solution is prepared with a solution to proportion of 1 to 10, 1 to 5 or 1 to 2. When full titration is required, serum solution is prepared in proportions 1 to 2 and 1 to 5. To each of the serum dilutions solutions prepared in this way it is mixed added with an equal volume of suspension of the virus containing 100 infection doses (ICID 50).

After the incubation with them the mixture is used the cell cultures to be infected and their incubation takes 3 to 5 days. After this incubation period the cultures are fixed and each reproduction of the virus is detected by

immune marking (immune-peroxydase or immune-fluorescent reaction).

The results from the VNR are expressed with the reciprocal value of the initial diluting of the serum, whereas half of the infected cell cultures (final titre 50%) do not show any reproduction of the virus (there is no specific marking colouring or bearing). Evaluation of the titre between two dilutions is done. The final dilution is an effective dilution of the serum during the neutralisation reaction after adding the virus, but without adding any cell suspension.

VNR is the most sensitive and the most reliable method for the detection of antibodies of the CSF virus. It is recommended a serological testing to be done both of individual animals and of herds. The testing allows also the detection of antibodies with crossed neutralisation.

The application of VNR for detection of antibodies against the virus of the mucous disease - viral diarrhoea /MD - VD/ in beef cattle and the Border disease in sheep is based on the same principles and is used for differential diagnostics of CSF.

The strains of the virus, which are used in the virus neutralisation reaction, shall be in compliance with the recommendations of the Reference Laboratory of the European Union.

Different variants of ELISA have been developed by making use of specific monoclonal antibodies - a competitive (blocking) method and a non-competitive ELISA.

The competitive (blocking) method is usually based on the usage of monoclonal antibodies. If the serum sample contains antibodies against the CSF virus, the binding conjugation of the monoclonal body, in combination with peroxydase, with the antigen of the virus leads to a reduction of the colour extinction.

The NRL Sofia works with two types of the aforementioned ELISA: For detection of anti E2 antibodies and for detection of anti E mns antibodies against the CSF virus which are produced by BOMMELI, Switzerland. The manufacturer's prescriptions are followed when they are used.

In the non-competitive ELISA the binding of the serum antibodies with the antigen is directly compared with the help of antibodies in combination with peroxydase.

The NRL Sofia together with the National Institute for the control veterinary medicinal products regularly exercises control on the sensitivity and the specificity of all lots of ELISA by making use of a kit of reference sera provided by the Reference Laboratory of the European Union. This kit includes:

- Sera from pigs in an initial phase of infection with the CSF virus (up to 21 days after the infection);
- Sera from pigs that are getting well (after the 21st day of the infection);
- Sera from pigs infected by viruses of ruminants.

The ELISA tests for serological diagnostics of CSF should recognise all reference sera of pigs that are getting well. All the results obtained are reproduced. It is recommended further tests to identify all the positive sera in the initial phase and to represent minimum cross-reactions with sera from pigs infected with viruses of ruminants.

The results obtained from reference sera of pigs in an initial phase of the infection provide indications about the sensitivity of the ELISA tests

The sensitivity of the ELISA tests is considered to be lower than that of VNR and is recommended for use for detection of the disease in herds. In spite of that, the ELISA tests require less specialised equipment and they are done much quicker than VNR due to the automated equipment.

The ELISA tests make it possible to be discovered all infections of CSF in the phase of recovery from the illness and should be freed to a maximum degree from cross-reactions with antibodies against viruses typical for the ruminant animals.

The interpretation of the results from the serological tests and differential diagnosis for the infections caused by viruses typical for the ruminant animals (mucous disease - viral diarrhoea in beef cattle and Border disease in sheep):

In case of detection of a titre of neutralisation of the CSF virus equal or greater than 10 ND₅₀ in serum samples of one or more pigs or in case of a positive result by ELISA in serum samples of a group of pigs, NVS immediately introduces the measures envisaged in the Regulation on the Prophylactics, Restriction and Annihilation of the Classical Swine Fever.

The already taken samples from the facilities are subject to a second VNR (comparative final titration of virus – neutralising antibodies against CSF and the viruses typical for the ruminant animals).

If as a result of the comparative tests antibodies against the viruses typical for the ruminant animals are discovered and titres of the antibodies against CSF are missing or they are in a smaller quantity (less than one third), the suspicion for CSF is rejected, except in case there are any other reasons, which justify the application of the measures envisaged in the Ordinance /Regulation/ on the Prophylactics, Containment /Restriction/ and Eradication /Annihilation/ of CSF.

If as a result of the comparative tests titre of neutralisation of the virus equal or greater than 10 ND₅₀ is detected in more pigs and this titre is equal to or higher than the titres related to other plague viruses, the NVS shall take immediately the required measures for confirmation of the presence of CSF, under the condition that in the respective facilities epizootic occurrence of the disease has been evidenced.

Without violating the provisions of the Regulation on the Prophylactics, Restriction and Annihilation of the Classical Swine Fever, if not a single epizootic occurrence of the disease has been evidenced and the results from previous tests are insufficient, the NVS shall take immediate measures in the respective stockbroding facilities, as follows:

- to be continued the action of the measures under the Regulation on the Prophylactics, Restriction and Annihilation of the Classical Swine Fever;
- Further additional tests to be made as soon as possible to be confirmed or rejected the presence of the CSF virus.

When the additional control measures and tests mentioned above in item 4 do not allow the presence of CSF to be rejected, it shall be necessary to take new blood samples for serological tests from the respective holding minimum two weeks after the previous controls.

In the context of this measure new samples are taken from the same pigs for a comparative serological study against the previous samples, allowing a sera conversion of the CSF virus or of the Pest virus typical for the ruminant animals to be detected, as the case may be.

If during the repeated tests the presence of the CSF virus is not confirmed, the imposed measures shall be terminated.

Virology

Detection of virus antigen by direct immune-fluorescent method and ELISA

The principle of this method is detection of antigens of the virus in cryo-sections of organs of pigs, which are under suspicion for an infection with the CSF virus. The intra-cellular antigens are detected with the help of an antibody, conjugated with fluorescein isothiocyanate (FITC). The National Reference Laboratory uses FITC-conjugated antibody "Cedicon", made in the Netherlands. Each positive result should be confirmed by repeating the reaction with the help of a specific monoclonal antibody.

The most suitable organs are the tonsils, the kidneys, the spleen, the lymph nodes and the distal parts of colon, of which the National Reference Laboratory prepares cryo-sections. For wild pigs medulla smear may be used, when the abovementioned organs are not available or are decayed. The method for colouring of the cryo-cuts of internal organs fixed by acetone is presented by the producer.

The test is done within one day. As the samples are taken only from dead animals, their use for detection of the disease is limited. The certainty of the results from the tests may be reduced due to questionable fluorescence, especially when the specialist doing the test is not experienced enough with this method or when the tested organs are decayed.

Different ELISA techniques make it also possible to detect the antigen of the virus. The antigen ELISA should be sensitive enough to allow the achievement of positive results for animals with clinical symptoms for the presence of CSF. The National Reference Laboratory works with ELISA, produced by BOMMELI, Switzerland.

The use of ELISA is recommended for detection of the antigen in samples of animals with clinical symptoms or with pathological changes of the disease. They are not appropriate for individual testing. The NRL, Sofia works with blood serum or most suitable are the samples of leucocytes, blood serum, non-clotted blood, as well as suspension of the organs described above and taken from pigs, which are suspected to have an infection of the CSF virus.

ELISA can be done within one day with the help of automated equipment. The main advantage is the possibility to process a great number of samples in a short period of time. All batches of the ELISA kits are subject of intra-laboratory control and are used after satisfactory results are obtained using reference material. All ELISA on sale at the moment are less sensitive compared with the method of isolation of the virus in cell culture or RT PCR.

Isolation of the virus, virus genome and genome typing and interpretation of results

The isolation of the virus is based on inoculation of a sensitive cell cultures from pigs with the sample material. If the CSF virus is present in the sample, it gemmates in the cells in quantities, which can be detected by colour reaction of the infected cells with loaded antibodies. It is necessary to have specific antibodies against CSF available to be able to make a differential diagnosis with regard to other viruses.

Most suitable for the isolation of the virus of CSF are the leucocytes; blood plasma and whole blood samples, non-clotted blood or samples of the organs described above.

The method based on isolation of the virus is more suitable for the analysis of samples from a small number of animals, than for mass control. It needs great efforts and the results are obtained in three days as earliest. It might prove necessary two passages of cell cultures to be made in case of the detection of a weak presence of the virus in the sample. Thus the period needed to obtain the end results from the test may be extended to ten days. The decayed samples may prove to be cytotoxic for the culture and thus restrict the use of the method.

Isolation of the virus is recommended, when the presence of the CSF virus has already been confirmed by other methods. It is used as a reference method to confirm the positive results obtained with the ELISA

method for the detection of antigen, a polymerase chain reaction (PCR), an immuno-fluorescent method or an indirect immuno-peroxydase method.

The CSF virus isolates obtained in this way are genetically characterized and typified. The genetic typing of virus isolates is used for the purposes of the molecular epizootic studies.

All isolates of the Classical Swine Fever Virus taken from primary outbreaks of the disease, from primary cases of infection of wild pigs or by cases of infection with the disease in a slaughterhouse or a means of transportation are forwarded to the CRL Hanover for the identification the genetic type.

The polymerase chain reaction (PCR) serves for detection of the genome of the virus in the samples of blood, tissues and organs. Small fragments of Ribonucleic acid (RNA) of the virus are transcribed in fragments of the Desoxyribonucleic acid (DNA) and are amplified by PCR to determine the quantities. As this test allows only a segment of the genome, PCR may give a positive result even in case of absence of the CSF virus (for instance, in decayed tissues or samples of pigs getting well after an illness).

PCR is used for a restricted number of selected samples of animals under suspicion or material from aborted fetus. It may be the ideal method for carcasses of wild boar, if the material has decayed and the isolation of the virus is impossible due to cytotoxicity.

The most suitable material for PCR diagnostics includes the samples taken from the organs enumerated in the item for isolation of the virus or non-clotted blood.

The polymerase chain reaction (PCR) needs 48 hours to be completed. It requires suitable laboratory equipment, separate premises and qualified staff. One of the advantages of the method is that the segments infected with the virus are not subject to reproduction under laboratory conditions. This method is very sensitive, but the possibility for easy pollution may lead to false positive results. Therefore it is necessary procedures for quality control to be applied. Some methods are specific for all viruses and require additional tests for verification, such as segmentation of the product of the polymerase chain reaction (PCR).

The virological tests are necessary to confirm the presence of CSF. The isolation of the virus is a referent method. It is used for a confirmation too. It is recommended in case with the positive results of the immuno-fluorescent method, ELISA or PCR have not been detected any clinical symptoms or changes characteristic for the disease, and in any other case causing doubts.

In spite of that, to confirm the primary outbreak of CSF the presence of the clinical symptoms or changes characteristic for the disease in the respective pigs is enough, when it is combined with positive results from at least two of the methods for detection of the antigen or the genome of the virus.

A further (secondary) outbreak of CSF is confirmed, when besides an epizootic connection with the already confirmed outbreak or case there are detected clinical symptoms or changes characteristic for the disease in the pigs under surveillance and when a method for the detection of the antigen or the genome of the virus has given positive results.

A primary outbreak of CSF among wild pigs is confirmed after the virus has been isolated or at least two of the methods for detection of the antigen or the genome of the virus have given a positive result. Other cases of CSF in wild pigs can be confirmed if epizootic connection with confirmed cases has been found and when at least one method for the detection of the antigen or the genome of the virus has given a positive result.

To give a positive result, the method for detection of the antigen or the genome of CSF is executed with

specific antibodies or primers against the CSF virus. If the method is not specific for the CSF virus, but only for the *Pestivirus* genus, the test is repeated by using the specific reactive for the CSF virus.

As regards distinguishing tests in case of emergency vaccination by live vaccine there is no appropriate test that would enable pigs vaccinated by live vaccine to be distinguished from those naturally infected by the CSF disease. For Bulgaria this scenario has to be taken into consideration only in the context of the oral vaccination of the wild boar and for elderly domestic pigs which were vaccinated before ceasing the vaccination of the domestic pig population on the 10.01.2006.

4.4.7.4 Vaccine used for the oral vaccination of the wild boar population

For the oral vaccination of wild boar population the commercially available RIEMSER Schweinepestoralvakzine (RIEMSER Arzneimittel AG) will be used according to the instructions of the manufacturer.

As regards the monitoring of the oral vaccination of the wild boar population it is the intention to combine the sampling procedure for the legally required testing on *Trichinella* with the control of the CSF status of the wild boar. With this approach the targeted monitoring on the whole territory of Bulgaria will be achieved and 30 % of the whole wild boar population could be reached for checking circulating field virus or sero-conversion. (see Annex I, map 5).

In the 2005 CSF in wild pigs was detected in 7 districts Of Bulgaria. In May 2005 a training of veterinary specialists of the NVS, representatives of the NFD and the National Association "Union of the Hunters and Fishermen in Bulgaria" on the use of oral vaccination of the wild pigs was organised with the help of TAIEX experts.

To restrict and eradicate the outbreaks of CSF in wild pigs two vaccination campaigns with per oral vaccine made in the Federal Republic of Germany in 2005 were conducted and 60,000 doses of this vaccine were distributed on a total area of 5,234 sq. km.

For restriction and eradication of the outbreaks of CSF in wild pigs during 2007 two vaccination campaigns were provided – each of 100.000 doses oral vaccines.

An oral vaccination of the wild boars consisting of 200.000 doses oral vaccines in two vaccination campaigns are carried out in the year 2008 on the whole territory of Bulgaria. The first vaccination campaign was carried out on July 2008 with two sets of oral vaccine. The second vaccination campaign will be performed on October-November 2008 with two sets of oral vaccine in the border municipalities with FYROM, Serbia and Romania. Vaccination area will cover all regions situated at 40 km form border line.

Number of samples will be taken from wild boar found dead or shot on the territory of Bulgaria after oral vaccinations against CSF as indicated in Table 7.1.1.2.

The oral vaccination will be carried out only in the municipalities near to the borders (40km area including 20km high risk zone and 20 km buffer zone)) with Serbia, Macedonia and Romania. On 2009 will be performed 3 vaccination campaigns with two sets (in the spring, in the summer and in the autumn) (Table 6.6.3).

The further strategy shall depend on the results from the mandatory Monitoring Program for

the wild pigs shot in hunting or found dead. Instructions have been given to take samples from any wild pigs shot or found dead. With view to the vaccination this testing will involve serological and virological tests as indicated in Table 7.1.1.2.7).

In the vaccination area will be taken and tested organ samples for testing with FAT and PCR methods for circulation of the virus of CSF and the blood samples will be tested for the control of the performed vaccination.

In the non- vaccination area within the country will be tested the organ samples for CSF virus circulation and the blood samples for presence of CSF antibodies. The "target animals" will be used for the first year after vaccination. The target animals will be on age between 6- 12 months and age will be written in the accompanied letter.

The antibodies in samples taken from the older animals and negative results for presence of the CSF virus are because of the control of the performed vaccination with oral vaccine for the first half of 2008.

The number of samples is depending on the wild boar population in the zone with 5% prevalence and 95% confidence.

The table below indicates the scheme for the distribution of baits for oral vaccination of the wild boar population per hunting areas in the 40 km Northern and Western border area (including 20 km high risk zone + 20 km buffer zone) in the Republic of Bulgaria for the autumn of 2008 - one vaccination campaign with two sets

Regions	Border Municipalities in Northern and Western border of Bulgaria - 40 km (high risk zone + buffer zone)	Total number of animals (estimated)	Size of hunting area or park in ha	Number of baits per ha	Total number of baits distributed for Autumn vaccination on 2008
Blagoevgrad	Petrich	138	51 542	0,0058	300
	Strumiani	255	26 000	0,0231	600
	Kresna	131	20 361	0,0147	300
	Simitli	256	38 560	0,0156	600
	Blagoevgrad	246	47 310	0,0127	600
	Sandanski	1 014	121 698	0,0168	2 050
Kjustendil	Kocherinovo	158	21 839	0,0165	360
	Nevestino	305	78 054	0,0085	660
	Kjustendil	434	76 889	0,0124	950
	Treklano	172	38 302	0,0110	400
	Rila	125	16241	0,0172	280
	Dupniza	162	21846	0,0160	350
	Bobov dol	87	24544	0,0081	200
	Bobochevo	75	12 519	0,0119	150
Pernik	Zemen	170	23 161	0,0173	400
	Breznik	75	35 256	0,0057	200
	Tran	458	56 269	0,0178	1 000
	Kovachevtsi	63	14 278	0,0140	200
	Radomir	183	50 172	0,0079	400
Sofia region	Dragoman	345	31 120	0,0257	800
	Slivnitsa	109	19 070	0,0184	350
	Godech	299	39 177	0,0179	700
	Bojuristhe	85	4 700	0,0382	180
	Svoje – west from Iskar river	670	40 398	0,0346	1 400

Montana	Montana region - all	1472	350 538	0,0102	3600
Vidin	Vidin region - all	1 322	285 108	0,0095	2 700
Vratza	Kozlodui	40	16 982	0,0071	120
	Mizia	22	18 778	0,0053	100
	Oriahovo	30	11 398	0,0088	100
	Hayredin	17	18 874	0,0021	40
	Borovan	20	19 920	0,0025	50
	Byala Slatina	51	51 992	0,0021	110
Pleven	Kneja	59	26 602	0,0056	150
	Iskar	58	15 240	0,0131	200
	Dolna Mitropolia	66	32 705	0,0055	180
	Guliantsi	87	46 870	0,0047	220
	Nikopol	116	35 499	0,0085	300
	Belene	59	11 386	0,0176	200
	Cherven bryag	58	36 106	0,0033	120
	Doini Dabnik	58	26 601	0,0045	120
	Pleven – by road E-83	52	39 802	0,0027	110
	Levski – by road E-83	17	20 418	0,0019	40
Veliko Turnovo	Svishtov	235	59 036	0,0102	600
	Polski Trambej	243	45 062	0,0110	500
Russe	Ruse region - all	837	268 651	0,0074	2 000
Razgrad	Kubrat	283	61 057	0,0098	600
	Zavet	85	21 991	0,0090	200
	Tsar Kaloyan	18	12 950	0,0030	40
	Isperih	112	36 413	0,0071	260
Silistra	Silistra region - all	1 400	213 120	0,0131	2 800
Dobrich	Dobrich region - all	1250	414 729	0,0062	2 800
	TOTAL	14 082	3 105 134		31 490

4.4.8 Measures and terms of legislation as regards the compensation for owners of slaughtered and killed animals:

Article 108 of the Law of Veterinary Activities lays down that the owners of dead, compulsory killed and destroyed animals shall be reimbursed and compensated by funds extended under the State Budget. The terms and procedures of effecting compensations are provided for in Ordinance of the Council of Ministers of Republic of Bulgaria on the terms and procedures to be complied with when spending funds for covering of costs related to epizootic risks.

5. General description of the costs and benefits:

The financing of the 2009 CSF control programme shall be financed through the budget of the NVS. The necessary funds for compensation of the owners of the dead or killed in the context of the execution of this programme as well as the necessary financing for control and eradication measures in case of CSF outbreaks are provided by the state budget. The order and the conditions for providing the compensations are specified in Regulations concerning Art.109 of the Veterinary Activities Act.

Financing in the context of the execution of the programme is required for:

- Killing, slaughter, transportation of the animals upon the decision of the NVS;
- Temporary or permanent closing of facilities, slaughterhouses, processing enterprises for products of animal origin, animal markets, butcher's shops upon the decision of the NVS applying the measures stipulated in the programs for control of the disease;
- Control of the means of transportation for live animals along the public roads in order to detect eventual illegal movements of pigs;
- Collection, transport and destruction of killed or dead animals and the wastes of animal origin as well as cleaning and disinfection;
- Compensations of pig owners for killed or dead animals in case of destruction and for other losses in the context of the execution of the programme;
- Performance of clinical surveillance of the domestic pig population and for its sampling and testing for CSF;
- Execution of an oral vaccination campaign of the wild boar population and its surveillance including costs for the collection of sampling materials for CSF testing;
- Recording of results of active clinical surveillance and testing of the pig population;
- Scientific analysis of the results of the programme in the context of CSF epidemiology in Bulgaria

An estimate of cost details and summary of costs for the performance of the CSF control programme 2009 is given in chapter 8 below.

The benefits of the programme:

- Reducing the risk of spreading CSF within the European Union;
- Creating access for Bulgarian pig holders to the EU market and third countries;
- Full participation of Bulgarian pig meat and meat products producers in the internal market and trade with third countries;
- Eradication of CSF from the wild boar population most probably being a main reservoir for CSF virus in Bulgaria and thus lowering the risk of CSF transmitted to the East-Balkan pigs.

6. Data on the epidemiological evolution

6.1. Evolution of the disease

6.1.1. Data on evolution of the disease

6.1.1.1. Data on herds (*)

Year 2003- 2007

Disease – CSF

See separate table for 2008

Species: domestic and East- Balkan pigs

Year: 2003

Disease – CSF

Situation on date – 31.12.2003

Species: domestic pigs and East Balkan pigs

Holding Type II Region Bulgaria	Total number of herds (<)	Total number of herds under the programme	Number of herds checked	Number of positive herds for 2003	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	Indicators		
								% herd coverage	% positive herds Period herd prevalence	% new positive herds Herd incidence
1	2	3	4	5	6	7	$8 = (7/5) \times 100$ 100.00	$9 = (4/3) \times 100$ 100.00	$10 = (5/4) \times 100$	$11 = (6/4) \times 100$
Industrial farms	63	63	63							
Small farms	577	370	320	5	5	5	100.00	86.48	1.56	
Backyards holdings in settlements with more than 500 pigs	6055	4980	3200				100.00	64.25		
Backyards holdings in settlements with less than 500 pigs	157600	89890	41567	4	4	4	100.00	46.24	0.009	0.009
East Balkan pigs	408	408	210	2	2	2	100.00	51.47	0.95	0.95
Total	164 703	95 711	45 360	11	11	11	100.00	47.39	0.024	0.024

Year: 2004
Disease - CSF

Situation on date - 31.12.2004
Species: domestic pigs and East Balkan pigs

Holding Type H Region Bulgaria	Total number of herds (<)	Total number of herds under the programme	Number of herds checked	Number of positive herds for 2004	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	% herd coverage	Indicators		
									% positive herds	Period herd prevalence	% new positive herds Herd incidence
1	2	3	4	5	6	7	8=(7/5) x100	9=(4/3) x100	10=(5/4) x100	11=(6/4) x100	
Industrial farms	76	76	76				100.00				
Small farms	410	390	340	1	1	1	100.00	87.17	0.291	0.291	
Backyards holdings in settlements with more than 500 pigs	5467	5120	3500					68.35			
Backyards holdings in settlements with less than 500 pigs	127900	98677	46787					47.41			
East Balkan pigs	380	380	230	1	1	1		60.52	0.434	0.434	
Total	134 233	134 233	134 083	2	2	2	100.00	99.88			

Year: 2005
Disease – CSF

Situation on date – 31.12.2005
Species: domestic pigs and East Balkan pigs

Holding Type II Region Bulgaria	Total number of herds (<)	Total number of herds under the programme	Number of herds checked	Number of positive herds for 2005	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	% herd coverage	Indicators		
									% positive herds Period herd prevalence	% new positive herds Herd incidence	
1	2	3	4	5	6	7	$8=(7/5) \times 100$	$9=(4/3) \times 100$	$10=(5/4) \times 100$	$11=(6/4) \times 100$	
Industrial farms	72	72	72	0			100.00				
Small farms	298	298	298	0			100.00				
Backyards holdings in settlements with more than 500 pigs	4570	4570	4570				100.00				
Backyards holdings in settlements with less than 500 pigs	110600	110600	110600	0			100.00				
East Balkan pigs	330	330	250	0				75.75			
Total	115 870	115 870	115 790	0	0	0		99.93			

Holding Type H Region	Total number of herds (<)	Total number of herds under the programme	Number of herds checked	Number of positive herds for 2006	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	% herd coverage	Indicators			
									% positive herds Period prevalence	% new positive herds Herd incidence	% positive herds Period prevalence	
Bulgaria												
1	2	3	4	5	6	7	$8 = (7/5) \times 100$	$9 = (4/3) \times 100$	$10 = (5/4) \times 100$	$11 = (6/4) \times 100$		
Industrial farms	83	83	83	0		0		100,00	0,00		0,00	
Small farms	373	373	373	2		2	100,00	100,00	0,54		0,00	
Backyards holdings in settlements with more than 500 pigs	4981	4981	4981	0		0	0	100,00	0,00		0,00	
Backyards holdings in settlements with less than 500 pigs	105279	105279	105279	5		5	100,00	100,00	0,004		0,00	
East Balkan pigs	313	313	313	0			100,00	100,00				
Total	111 029	111 029	111 029	7		7	100,00	100,00	0,006		0,00	

Holding Type H Region Bulgaria	Total number of herds (<)	Total number of herds under the programme	Number of herds checked	Number of positive herds for 2007	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	% herd coverage	Indicators		
									% positive herd prevalence	% new positive herds Herd incidence	% positive herds Period prevalence
1	2	3	4	5	6	7	$8 = (7/5) \times 100$	$9 = (4/3) \times 100$	$10 = (5/4) \times 100$	$11 = (6/4) \times 100$	
Industrial farms	83	83	83	0		0		100,00	0,00		0,00
Small farms	373	373	373	2		2	100,00	100,00	0,54		0,00
Backyards holdings in settlements with more than 500 pigs	4981	4981	4981	0		0	0	100,00	0,00		0,00
Backyards holdings in settlements with less than 500 pigs	105279	105279	105279	5		5	100,00	100,00	0,004		0,00
East Balkan pigs	313	313	313	0			100,00	100,00			
Total	111 029	111 029	111 029	7		7	100,00	100,00	0,006		0,00

Year 2008
Disease – CSF

Situation on date – 30.04.2008
Species: domestic pigs and East Balkan pigs

Holding Type H Region Bulgaria	Total number of herds (<)	Total number of herds under the programme	Number of herds checked	Number of positive herds for 2008	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	% herd coverage	Indicators		
									% positive herds herd prevalence	% positive herds Period herd prevalence	% new positive herds Herd incidence
1	2	3	4	5	6	7	$8 = (7/5) \times 100$	$9 = (4/3) \times 100$	$10 = (5/4) \times 100$	$11 = (6/4) \times 100$	
Industrial farms	76	76	76	0	0	0	0,00	100,00	0,00	0,00	
Family farms Type A	74	74	74	0	0	0	0,00	100,00	0,00	0,00	
Family farms Type B	2546	2546	2546	0	0	0	0,00	100,00	0,00	0,00	
Pigs raised in "back yard" holdings	71 557	71 557	71 557	0	0	0	0,00	100,00	0,00	0,00	
East Balkan pigs	152	152	152	0	0	0	0,00	100,00	0,00	0,00	
Total	74 405	74 405	74 405	0	0	0	0,00	100,00	0,00	0,00	

6.1.1.2. Data on animals
 Year 2002 – 2008 Animal species - pigs
 Disease – CSF
 Situation on date – 20.04.2008

Region	Total number of animals (c)	Number of animals (d) to be tested under the programme	Number of animals (G) tested	Number of animals tested individually (c)	Number of positive animals	Slaughtering		Indicators	
						Number of animals with positive result slaughtered or culled	Total number of animals slaughtered (%)	% coverage at animal level	% positive animals Animal prevalence
1	2	3	4	5	6	7	8	$9 = (4/3) \times 100$	$10 = (6/4) \times 100$
2002	1579792	3374	2416	2416	2128	2103	86	71,61	88,08
2003	1603848	7952	5405	5405	292	277	63	67,97	5,40
2004	1279084	7672	6720	6720	125	118	31	87,59	1,86
2005	1080519	8349	9047	9047	19	18	19	108,36	0,21
2006	1014933	105573	105309	105309	627	511	525	99,74	0,59
2007	951 216	86847	23010	23010	245	245	608	26,49	1,06
2008 up to 20. 04.2008	797 381	70 868	12 606	12 606	0	0	95		

6.2. Stratified data on surveillance and laboratory tests

Year 2002 – 2008 Animal species - pigs

Disease – CSF

Situation on date – 20.04.2008

Description of the serological and virological test used:

Serological tests: Ab ELISA,

Virological tests: Ag ELISA, RT PCR, FAT

Year:	Serological tests		Virological tests		Other tests	
	No of samples tested	No of positive samples	No of samples tested	No of positive samples	No of samples tested	No of positive samples
2002	2416	2128	433	81		
2003	5405	292	652	42		
2004	6720	125	1289	44		
2005	13107	130	2509	39		
2006	96265	554	9044	73		
2007	64998	275	6627	87		
2008 up to 20.04.2008	12 208	95	398	0		

6.3 Data on infection (one table per year and per disease/species)

Year-2002 Animal species - pigs
Disease - CSF

Bulgaria	Number of herds infected (*)	Number of animals infected
Industrial farms		
Trade farms	10	41
Backyards	22	45
East-Balkan pigs		
Wild pigs		
Total	32	86

Year-2003 Animal species - pigs
Disease - CSF

Bulgaria	Number of herds infected (*)	Number of animals infected
Industrial farms		
Trade farms	5	34
Backyards	4	5
East-Balkan pigs	2	24
Wild pigs		
Total	11	63

Year-2004 Animal species - pigs
Disease – CSF

Bulgaria	Number of herds infected (*)	Number of animals infected
Industrial farms		
Trade farms	1	3
Backyards		
East-Balkan pigs	1	19
Wild pigs		9
Total	2	31

Year-2005 Animal species - pigs
Disease – CSF

Bulgaria	Number of herds infected (*)	Number of animals infected
Industrial farms		
Trade farms		
Backyards		
East-Balkan pigs		
Wild pigs		
Total		

Year-2006 Animal species - pigs
Disease – CSF

Bulgaria	Number of herds infected (°)	Number of animals infected
Industrial farms		
Trade farms	3	68
Backyards	4	5
East-Balkan pigs		
Wild pigs		
Total	7	73

Year-2007 Animal species - pigs
Disease – CSF

Bulgaria	Number of herds infected (°)	Number of animals infected
Industrial farms		
Trade farms	1	41
Backyards		
East-Balkan pigs		
Wild pigs	2	46
total	3	87

Year-2008 up to 20.04.2008 Animal species - pigs
 Disease - CSF

Bulgaria	Number of herds infected (*)	Number of animals infected
Industrial farms		
Trade farms		
Backyards		
East-Balkan pigs		
Wild pigs		
Total	0	0

6.4 N.A

6.5. Data on vaccination or treatment programmes

Vaccinations against CSF

6.5.1. Prophylactic Vaccinations

The prophylactic vaccination of domestic pigs on the territory of Bulgaria is forbidden since 10.01.2006.

The table below shows the number of herds and pigs vaccinated in Bulgaria in the period from 2001 to 2005.

Year	Number of herds vaccinated	Number of animals vaccinated
2001	194 263	2933860
2002	205 304	3296094
2003	164 703	3136672
2004	134 233	2495460
2005	115 870	2111174

6.5.3. Emergency vaccination of domestic pigs – not performed

6.6. Data on wildlife

6.6.1. Estimation of wildlife population

The table below shows the total wild boar population of Bulgaria, a) broken down by the 16 regional state hunting areas according to the Regional Forestry Directorates, b) the 7 National parks, in which hunting is forbidden and c) Hunting areas provided for hunting to units of the National Union of Hunters and Anglers. The distribution of the wild boar population on the territory of Bulgaria is also shown in Annex I, map No 5.

There are no data about the total wild boars population of Bulgaria till 20-th of April 2008.

	Region	No of wild pigs in state hunting areas	No of wild pigs in areas provided for hunting to the National Union of Hunters and Anglers	Total
Hunting Areas according to the Regional Forestry Directorates	Berkovitsa	519	2201	2720
	Burgas	2201	1881	4082
	Blagoevgrad	1699	2700	4399
	Varna	1320	1583	2903
	Veliko Tarnovo	1403	3861	5264
	Kardzhali	644	2953	3597
	Kyustendil	663	2536	3199
	Lovech	1658	2457	4115
	Pazardzhik	1466	1006	2472
	Plovdiv	1357	1790	3147
	Ruse	758	1213	1971
	Sliven	1076	2339	3415
	Smolyan	563	2077	2640
	Sofia	1399	4894	6293
	Stara Zagora	625	1016	1641
	Shumen	1642	1847	3489
	total	18993	36354	55347
National parks	Rila National Park (NP)	492		492
	Pirin National Park	251		251
	Central Balkans NP	940		940
	UOGS	104		104
	Voden Hunting area	305		305
	MNO	56		56
	Iskar Hunting area	151		151
	total	2299		2299
Total Year 2007			57646	

6.6.2 Monitoring of wildlife

The table below shows the number of samples for serological and virological tests per hunting areas and parks of Bulgaria for 2008

Wild boar hunting district	Estimated population in number of wild boar ¹⁾	Number of wild boar tested ²⁾	Number of animals with sero conversion ³⁾	Number of animals positive for CSF virus ⁴⁾	Number of baits distributed in 2007 ⁵⁾
Berkovitsa	2720	54	6/12	0/738	13220
Burgas	4082	6	3/7	0/232	12800
Blagoevgrad	4399	31	1/1	0/651	19144
Varna	2903	20	6/15	0/1138	8000
Veliko Tarnovo	5264	262	14/39	0/812	17560
Kardzhali	3597	43	4/6	0/768	11200
Kyustendil	3199	187	6/35	0/967	14500
Lovech	4115	61	0/1	0/957	14400
Pazardzhik	2472	123	11/25	0/223	9450
Plovdiv	3147	75	5/17	0/816	4800
Ruse	1971	58	19/32	0/855	3200
Sliven	3415	27	8/24	0/502	10600
Smolyan	2640	59	10/17	0/503	8000
Sofia	6293	145	6/30	0/561	20400
Stara Zagora	1641	74	2/4	0/436	6400
Shumen	3489	42	9/33	0/589	11 400
Total	55347	1266	107/295	0/10 558	185 074
Rila National Park (NP)	492	0	0	0	2560
Pirin National Park	251	0	0	0	1640
Central Balkans NP	940	74	0	0/74	3200
UOGS	104	8	0	0/8	400
Voden Hunting area	305	18	0	0/18	800
MNO	56	0	0	0	160
Iskar Hunting area	151	90	0	0/90	960
Total	2299	190		0/190	9720
Total	57646	1456	107/295	0/10 748	194 794

1) Based on counting of wild boar in 2007

2) Samples taken from wild boar shot, found dead or crashed in traffic accidents – mainly taken during the second part of the hunting season 2006/2007 (reference period 1.10.07 to 31.01.2008 (end of hunting season 2007 / 2008))

3) Test method used: Commercially available antibody ELISA test on blood samples;
Number of animals sero-positive / the number of animals tested

4) Test method used: FAT cryo-sections of organs and RT-PCR.

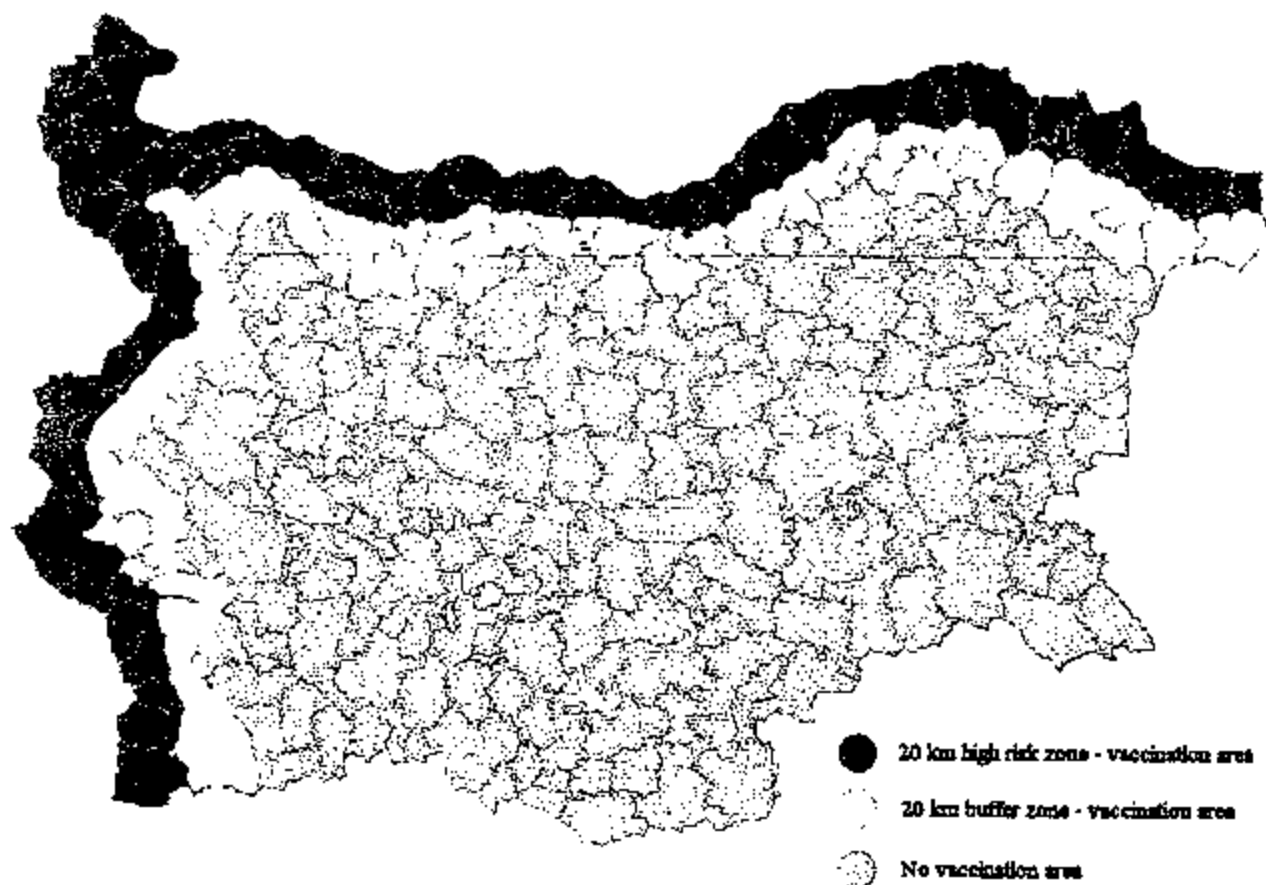
5) Two vaccination campaigns with two baits according to the instruction of the vaccine producer (FLI Riems)

6.6.3. Description of the used vaccination, therapeutic or other scheme:

The table below indicates the scheme for the distribution of baits for oral vaccination of the wild boar population per hunting areas in the 40 km Northern and Western border area (including 20 km high risk zone + 20 km buffer zone) in the Republic of Bulgaria for the year 2009.

Region	Border Municipalities in Northern and Western border of Bulgaria 40 km (high risk zone + buffer zone)	Total number of animals (estimated)	Size of hunting area or park in ha	Number of baits per ha	Total number of baits distributed
Blagoevgrad	Petrich	138	51 542	0,0058	900
	Strumiani	255	26 000	0,0231	1 800
	Kresna	131	20 361	0,0147	900
	Simitli	256	38 560	0,0156	1 800
	Blagoevgrad	246	47 310	0,0127	1 800
	Sandanski	1 014	121 698	0,0168	6 150
Kjustendil	Kocherinovo	158	21 839	0,0165	1 080
	Navestino	305	78 054	0,0085	1 980
	Kjustendil	434	76 889	0,0124	2 850
	Trekliano	172	36 302	0,0110	1 200
	Rila	125	16241	0,0172	840
	Dupniza	162	21846	0,0160	1 050
	Bobov do.	87	24544	0,0081	800
	Bobochevo	75	12 519	0,0119	450
Pernik	Zemen	170	23 161	0,0173	1 200
	Breznik	75	35 256	0,0057	600
	Tran	458	56 269	0,0178	3 000
	Kovachevtsi	63	14 278	0,0140	600
	Radomir	183	50 172	0,0079	1 200
Sofia region	Dragoman	345	31 120	0,0257	2 400
	Slivnitsa	109	19 070	0,0184	1 050
	Godech	299	39 177	0,0179	2 100
	Bojuristhe	85	4 700	0,0382	540
	Svoqe – west from Iskar river	670	40 398	0,0346	4 200
Montana	Montana region - all	1472	350 538	0,0102	10 800
Vidin	Vidin region - all	1 322	285 108	0,0095	8 100
Vratza	Kozlodui	40	16 982	0,0071	360
	Mizia	22	18 778	0,0053	300
	Oriahovo	30	11 398	0,0088	300
	Hayredin	17	18 874	0,0021	120
	Borovan	20	19 920	0,0025	150
	Byala Slatina	51	51 992	0,0021	330
Pleven	Kneja	59	26 602	0,0056	450
	Iskar	58	15 240	0,0131	600
	Dolna Mitropolia	66	32 705	0,0055	540
	Guliantsi	87	46 870	0,0047	660
	Nikopol	116	35 499	0,0085	900
	Belene	59	11 386	0,0176	600
	Cherven bryag	58	36 106	0,0033	240

	Dolni Dabnik	58	26 601	0.0045	240
	Pleven – by road E-83	52	39 802	0.0027	330
	Levski – by road E-83	17	20 418	0.0019	120
Veliko Turnovo	Svishtov	235	59 036	0.0102	1 800
	Poiski Trambej	243	45 062	0.0110	1 500
Russe	Ruse region - all	837	268 651	0.0074	6 000
Razgrad	Kubrat	283	61 057	0.0098	1 800
	Zavet	85	21 991	0.0090	600
	Tsar Kaloyan	18	12 950	0.0030	120
	Isperih	112	36 413	0.0071	780
Silistra	Silistra region - all	1 400	213 120	0.0131	8 400
Dobrich	Dobrich region - all	1250	414 729	0.0062	7 800
TOTAL		14 082	3 105 134		94 470



7. **Targets**
 7.1. **Targets related to testing**
 7.1.1. **Targets on diagnostic tests**
 7.1.1.1 **Number and specification of tests**

Disease (a): CSF, Animal species – domestic pigs, East-Balkan pigs and wild boar

Targeting the tests under this Program

The epidemiological aspects of CSF have been taken into account to define the subject of the tests – herds and animals. From an epidemiological point of view there are five different categories of pigs as described under chapter 2) above.

The table below shows the targets related to testing and to all of the five different categories of pigs as regards the Bulgarian CSF control plan for 2009.

Region	Type of test	Target population	Type sample of	Objective	Number of tests planned
Bulgaria	AB - Elisa	all categories	blood	monitoring, sero-conversion, control of vaccination in case of wild boar	42 492
	VNT	all categories	blood	monitoring, differentiation tests	1000
	FAT	all categories	tissues	confirmation	12000
	AG - Elisa	all categories	blood	confirmation of CSF	2000
	Virus Isolation	all categories	blood or other	confirmation of CSF	500
	RT PCR	all categories	blood or other	confirmation of CSF	10000

7.1.1.2. Testing scheme:

7.1.1.2.1 Industrial Pig Farm

District	Number of farms	Number of pigs	Clinical observation		Number of samples for laboratory testing		
			Registered vets	Official vets	I and II quarter	III and IV quarter	Total
Blagoevgrad	1	1 093	12	6	29	29	58
Burgas	3	11 152	36	18	87	87	174
Varna	7	40 358	84	42	203	203	406
V. Tarnovo	3	14 128	36	18	87	87	174
Vidin	2	4 410	24	12	58	58	116
Vratza	1	3 121	12	6	29	29	58
Gabrovo	1	2 153	12	6	29	29	58
Dobrich	1	10 544	12	6	29	29	58
Kardjali	0	0	0	0	0	0	0
Kustendil	0	0	0	0	0	0	0
Lovech	3	15 705	36	18	87	87	174
Montana	1	3 237	12	6	29	29	58
Pazardjik	3	16 540	36	18	87	87	174
Pernik	0	0	0	0	0	0	0
Pleven	3	12 017	36	18	87	87	174
Plovdiv	4	24 330	48	24	116	116	232
Razgrad	1	33 203	12	6	29	29	58
Russe	7	88 493	84	42	203	203	406
Silistra	5	26 975	60	30	145	145	290
Sliven	2	6 116	24	12	58	58	116
Smolyan	0	0	0	0	0	0	0
Sofia - city	0	0	0	0	0	0	0
Sifia - region	2	2 696	24	12	58	58	116
Stara Zagora	4	34 766	48	24	116	116	232
Targovishte	3	7 988	36	18	87	87	174
Haskovo	2	3 309	24	12	58	58	116
Shoumen	9	60 529	108	54	261	261	522
Yambol	4	19 454	48	24	116	116	232
Total for the country	76	442 418	864	432	2 088	2 088	4 176

Note:

1. Blood samples will be taken at the abattoirs by the official veterinarians.
2. The registered veterinarians will carry out clinical examination of all categories of pigs in the industrial farms every month.
3. The official veterinarian of the relevant municipality will carry out clinical examination of all categories of pigs in the industrial farms every two months.

7.1.1.2.2 Family farms type A

District	Number of farms	Number of pigs	Clinical observations		Number of samples for laboratory testing		
			Registered vets	Official vets	I and II quarter	III and IV quarter	Total
Blagoevgrad	1	89	12	12	29	29	58
Burgas	0	0	0	0	0	0	0
Varna	2	67	24	24	58	58	116
V. Tarnovo	5	3606	60	60	145	145	290
Vidin	2	358	24	24	58	58	116
Vratza	0	0	0	0	0	0	0
Gabrovo	3	555	36	36	87	87	174
Dobrich	4	1166	48	48	116	116	232
Kardjall	3	233	36	36	87	87	174
Kustendil	5	311	60	60	145	145	290
Lovech	4	1463	48	48	116	116	232
Montana	4	644	48	48	116	116	232
Pazardjik	6	2114	72	72	174	174	348
Pernik	0	0	0	0	0	0	0
Pleven	0	0	0	0	0	0	0
Plovdiv	5	4350	60	60	145	145	290
Razgrad	2	2367	24	24	58	58	116
Russe	4	120	48	48	116	116	232
Sitistra	3	874	36	36	87	87	174
Sliven	3	3147	36	36	87	87	174
Smolyan	0	0	0	0	0	0	0
Sofia - city	2	272	24	24	58	58	116
Sofia - region	0	0	0	0	0	0	0
Stara Zagora	6	2412	72	72	174	174	348
Targovishte	0	0	0	0	0	0	0
Haskovo	0	0	0	0	0	0	0
Shoumen	2	1063	24	24	58	58	116
Yambol	8	1257	96	96	232	232	464
Total	74	26 348	888	888	2146	2146	4292

Note:

1. Blood samples will be taken at the abattoirs by the official veterinarians.
2. Clinical examination will be performed by registered veterinarian in the family farms type A every month.
3. Clinical examination will be performed by official veterinarian in the family farms type A every month.

7.1.1.2.3 Family farms type B

District	Number of farms	Number of pigs	Average number of reared pigs per farm type B	Clinical observations		Number of samples for laboratory testing				Total
				Registered vets	Official vets	1-st quarter	2-nd quarter	3-th quarter	4-th quarter	
						In the slaughter-house	In the slaughter-house	In the slaughter-house	In the slaughter-house	
Blagoevgrad	74	1491	20.0	444	296	185	185	185	185	74
Burgas	170	7518	44.2	1020	680	510	510	510	510	204
Varna	56	1350	24.1	336	224	154	154	154	154	61
V. Tarnovo	63	10340	164.0	378	252	425	425	425	425	170
Vidin	109	1378	12.6	654	436	354	354	354	354	141
Vratza	26	1456	56.0	156	104	78	78	78	78	
Gabrovo	95	933	9.8	570	380	65	65	65	65	26
Dobrich	201	7071	35.1	1206	804	603	603	603	603	141
Kardjali	35	1026	29.3	210	140	97	97	97	97	38
Kustendil	21	630	30.0	126	84	58	58	58	58	23
Lovech	15	863	57.5	90	60	45	45	45	45	18
Montana	74	2009	27.1	444	296	204	204	204	204	81
Pazardjik	18	601	33.4	108	72	54	54	54	54	21
Pernik	2	84	42.0	12	8	6	6	6	6	24
Pleven	219	3975	18.2	1314	876	548	548	548	548	219
Plovdiv	207	4555	22.0	1242	828	517	517	517	517	206
Razgrad	30	3838	127.9	180	120	144	144	144	144	57
Russe	37	4721	127.6	222	148	121	121	121	121	48
Silistra	73	1903	26.0	438	292	201	201	201	201	80
Sliven	19	3444	181.2	114	76	62	62	62	62	24
Smolyan	31	615	19.8	186	124	78	78	78	78	31
Sofia - city	12	692	57.6	72	48	36	36	36	36	14
Sofia - region	106	3373	31.8	636	424	192	192	192	192	
Stara Zagora	447	11675	26.1	2682	1788	1228	1228	1228	1228	491
Targovishte	84	1884	22.4	504	336	231	231	231	231	92
Haskovo	19	992	52.2	114	76	57	57	57	57	22
Shoumen	27	4342	160.8	162	108	183	183	183	183	73
Yambol	239	9200	38.5	1434	956	717	717	717	717	286
Total	2546	95 248	53.4	15 054	10 036	7153	7153	7153	7153	28 61

Note:

1. Blood samples will be taken in the slaughterhouses from the official veterinarians.
2. Clinical examination will be performed to all categories of pigs in the family farms type B by the registered veterinarians every two months.
3. Clinical examination will be performed in the family farms type B by the official veterinarian every three months.

7.1.1.2.4 Backyard pig holdings

District	Number of settlements	Number of owners	Number of pigs	Average number of reared pigs per owner	Clinical observations	
					Registered vets	Official vets
Blagoevgrad	200	1 693	2 466	1.5	2400	170
Burgas	115	3 308	7 363	2.2	1380	300
Varna	144	2 800	6 200	2.2	1728	280
V. Tarnovo	95	5 560	7 340	1.3	1140	550
Vidin	139	7 047	14 531	2.0	1668	700
Vratsa	123	4 099	8 226	2.0	1476	400
Gabrovo	65	354	533	1.5	780	36
Dobrich	274	3 092	15 462	5.0	3288	300
Kardjali	22	152	256	1.7	264	15
Kustendil	60	3 862	7 170	1.8	720	380
Lovech	25	1 576	2 322	1.5	300	150
Montana	129	4 723	10 647	2.2	1548	470
Pazardjik	87	535	1 089	2.0	1044	55
Pernik	173	2 318	5 482	2.3	2076	230
Pleven	78	3652	10 461	2.8	936	230
Plovdiv	22	2 274	6 691	3.0	264	220
Razgrad	103	654	1 187	1.8	1236	65
Russe	87	429	763	1.7	1044	43
Shistra	94	1 313	4 192	3.2	1128	130
Sliven	91	11 580	14 950	1.3	1092	120
Smolyan	8	198	382	1.9	96	20
Sofia - city	27	37	124	3.3	324	10
Sifla - region	259	1 595	5 648	3.5	3108	160
Stara Zagora	266	5 073	10 152	2.0	2472	500
Targovishte	87	340	717	2.1	1044	34
Haskovo	130	4 000	11 000	2.7	1560	400
Shoumen	117	800	1 390	1.7	1404	80
Yambol	110	1 994	1 996	1.0	1320	200
Total	3 070	71 557	169 383	2.2	36 840	6248

Note:

1. The registered veterinarian will carry out clinical examination in every settlement of all categories of pigs which are reared in "backyards" holdings every three months.
2. The official veterinarian will carry out clinical examination in 10 % of the "backyards" holdings every three months.
3. Samples for laboratory investigation will be taken in case of change of the normal health status of the pigs.

7.1.1.2.5 East-Balkan pigs

District	Number of herds	Number of pigs	Clinical observation		Number of samples for laboratory testing				Total
			Registered vets	Official vets	I –st half-year		II –nd half-year		
					In the slaughter-house	In the herds	In the slaughter-house	In the herds	
Burgas	43	1 700	516	172	312	312	312	312	1 248
Varna	76	5 600	912	304	551	551	551	551	2 204
Shoumen	33	3 109	396	132	240	240	240	240	960
Total:	152	10 409	1 824	608	1 103	1 103	1 103	1 103	4 412

Note:

1. Well documented clinical examination of the pigs will be performed in any case of identification of the animal or a movement control registration.
2. The registered veterinarians will carry out well documented clinical examination of all herds of East-Balkan pigs every month.
3. Clinical examination will be performed by official veterinarian of all East Balkan herds every three months.
4. Blood samples will be taken in the herds from registered veterinarian once per half-year on the field.
5. Blood samples will be taken in the slaughterhouses from the official veterinarians.

7.1.1.2.6 Total number of samples from domestic pigs:

7.1.1.2.7

Category of holdings	Number of farms	Number of pigs	Number of samples for laboratory testing
Industrial pig farms	76	442 418	4 176
Family farms type A	74	26 348	4 292
Family farms type B	2546	91 875	28 612
Backyards pigs	71 557	169 383	if necessary
East-Balkan pigs	152	10 409	4 412
Total	74 405	740 433	41 492

7.1.1.2.7. Numbers of samples to be taken from wild boars found dead or shot on the whole territory of the Republic of Bulgaria

	Region	Total number of animals (estimated)	Samples expected for serological testing	Samples expected for virological testing
Hunting Areas according to the Regional Forestry Directorates	Berkovitsa	2720	70	800
	Burgas	4082	70	800
	Blagoevgrad	4399	70	700
	Varna	2903	50	500
	V. Tamovo	5264	50	600
	Kardzhali	3597	50	600
	Kyustendil	3199	60	500
	Lovech	4115	50	600
	Pazardzhik	2472	50	500
	Plovdiv	3147	50	500
	Ruse	1971	60	600
	Sliven	3415	40	400
	Smolyan	2640	70	700
	Sofia	6293	40	400
	Stara Zagora	1641	60	800
	Shumen	3489	60	750
	Total	55347	900	9 750
National parks	Rila National Park (NP)	492	0	0
	Pirin National Park	251	0	0
	Central Balkans NP	940	45	100
	UOGS	104	10	20
	Voden Hunting area	305	15	75
	MNO	56	5	5
	Iskar Hunting area	151	25	50
		Total	2299	100
	Total for Bulgaria	57646	1000	10 000

7.1.2. Targets on testing herds and animals

7.1.2.1. Targets on the testing of herds

Disease – CSF, Animal species- pigs

Type of pig holdings	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Target indicators		
								Expected % herd coverage	% positive herds expected herd prevalence	% new positive herds Expected herd incidence
1	2	3	4	5	6	7	8	9	10	11
Industrial	76	76	76	0	0	0	0	100	0	0
Family farms type A	74	74	74	0	0	0	0	100	0	0
Family farms type B	2546	2546	2546	0	0	0	0	100	0	0
Backyards	71 557	71 557	71 557	0	0	0	0	100	0	0
East-Balkan pigs	152	152	152	0	0	0	0	100	0	0
Total	74 405	74 405	74 405	0	0	0	0	100	0	0

7.1.2.2. Targets on the testing of animals - 2009

Disease – CSF, Animal species- domestic pigs and East Balkan pigs

Type of pig holdings	Total number of animals (')	Number of animals (') under the programme	Number of animals (') expected to be tested	Number of animals to be tested individually (-)	Number of expected positive animals	Slaughtering			Target indicators	
						Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered (')	Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered (')	
1	2	3	4	5	6	7	8	9=(4/3)x100	10=(6/4)x100	
Industrial farms	442 418	442 418	4 176	4 176	0	0	400 000	0	400 000	
Family farms type A	26 348	26 348	4 292	4 292	0	0	25 000	0	25 000	
Family farms type B	91 875	91 875	28 612	28 612	0	0	80 000	0	80 000	
Backyards	169 383	169 383	-	-	0	0	169 000	0	169 000	
East-Balkan pigs	10 409	10 409	4 412	4 412	0	0	8 000	0	8 000	
Total	740 433	740 433	41 492	41 492	0	0	682 000	0	682 000	

8. Detailed analysis of the cost of the programme

Costs related to	Specification	Number of units for 2009	Unitary cost in euro for 2009	Total amount in euro for 2009	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: ELISA antibodies	42 492	2,5	106 230,00	Yes
	Test: ELISA antigen Virus	2 000	2,7	5 400,00	Yes
	Neutralisation Reaction Test (VNR)	1000	12	12 000,00	Yes
	FAT	12 000	4,2	50 400,00	Yes
	RT PCR	10 000	15	150 000,00	Yes
	Virus isolation	500	6,5	3 250,00	Yes
1.2. Cost of sampling	No of samples	55 000	1,6	88 000,00	Yes
	Vacutainers	40 000	0,30	12 000,00	
1.3. Other costs- collection and transport of samples to the laboratory				50 000,00	Yes
2. Vaccination of wild pigs					
2.1. Purchase of vaccine/treatment	Oral vaccination	94 470	1,50	141 705,00	Yes
2.2. Distribution costs					
2.3. Administering costs					
2.4. Control costs				30 000	

2.4.1. Start-up costs for Bulgaria joining the database					25 000	Yes
2.4.2. Annual operation of the database					5 000	Yes
3. Clinical examination		76 200	1,00		76 200,00	Yes
4. Slaughter and destruction						
4.1. Compensation of animals					500 000,00	Yes
4.2. Transport costs					20 000,00	Yes
4.3. Destruction costs					10 000,00	Yes
4.4. Loss in case of slaughtering						
4.5. Costs from treatment of products (milk, eggs, hatching eggs, etc)						
5. Cleaning and disinfection					50 000,00	Yes
6. Salaries (staff contracted for the programme only)						
7. Other costs						
Scientific analysis of results		5	10 000		50 000,00	Yes
Total:					1 355 185,00	Yes

Categories of pig holdings on the territory of Bulgaria

Table 1: Industrial pig farms

District	Number of farms	number of pigs
Blagoevgrad	1	1 093
Burgas	3	11 152
Varna	7	40 358
V. Tarnovo	3	14 128
Vidin	2	4 410
Vralza	1	3 121
Gabrovo	1	2 153
Dobrich	1	10 544
Kardjali	0	0
Kustendil	0	0
Lovech	3	15 705
Montana	1	3 237
Pazardjik	3	16 540
Pernik	0	0
Pleven	3	12 017
Plovdiv	4	24 330
Razgrad	1	33 203
Russe	7	88 493
Silistra	5	26 975
Sliven	2	6 116
Smolyan	0	0
Sofia - city	0	0
Sofia - region	2	2 696
Stara Zagora	4	34 766
Targovishte	3	7 988
Haskovo	2	3 309
Shoumen	9	60 529
Yambol	4	19 454
Total	76	442 418

Table 2: Family farms type A

District	Number of farms	Number of plgs
Blagoevgrad	1	89
Burgas	0	0
Varna	2	67
V. Tamovo	5	3606
Vidin	2	358
Vratza	0	0
Gabrovo	3	555
Dobrich	4	1166
Kardjali	3	233
Kustendil	5	311
Lovech	4	1463
Montana	4	644
Pazardjik	6	2114
Pernik	0	0
Pleven	0	0
Plovdiv	5	4350
Razgrad	2	2367
Russe	4	120
Silistra	3	874
Sliven	3	3147
Smolyan	0	0
Sofia - city	2	272
Sofia - region	0	0
Stara Zagora	6	2412
Targovishte	0	0
Haskovo	0	0
Shoumen	2	1063
Yambol	8	1257
Total	74	26 348

Table 3: Family farms type B

District	Number of farms	Number of pigs
Blagoevgrad	74	1491
Burgas	170	7518
Varna	56	1350
V.Tarnovo	63	10340
Vidin	109	1378
Vratza	26	1456
Gabrovo	95	933
Dobrich	201	7071
Kardjali	35	1026
Kustendil	21	630
Lovech	15	863
Montana	74	2009
Pazardjik	18	601
Pernik	2	84
Pleven	219	3975
Plovdiv	207	4555
Razgrad	30	3838
Russe	37	4721
Silistra	73	1903
Sliven	19	3444
Smolyan	31	615
Sofia - city	12	692
Sofia - region	106	3373
Stara Zagora	447	11675
Targovishte	84	1884
Haskovo	19	992
Shoumen	27	4342
Yambol	239	9290
Total	2546	95 248

Table 4: Backyard holdings

District	Number of settlements	Number of owners	Number of pigs
Blagoevgrad	200	1 693	2 466
Burgas	115	3 308	7 363
Varna	144	2 800	6 200
V. Tarnovo	95	5 560	7 340
Vidin	139	7 047	14 531
Vratza	123	4 099	8 226
Gabrovo	65	354	533
Dobrich	274	3 092	15 462
Kardjali	22	152	256
Kustendil	60	3 862	7 170
Lovech	25	1 576	2 322
Montana	129	4 723	10 647
Pazardjik	87	535	1 089
Pernik	173	2 318	5 482
Pleven	78	3652	10 461
Plovdiv	22	2 274	6 691
Razgrad	103	654	1 187
Russe	87	429	763
Silistra	94	1 313	4 192
Sliven	91	11 580	14 950
Smolyan	8	198	382
Sofia - city	27	37	124
Sofia - region	259	1 595	5 648
Stara Zagora	206	5 073	10 152
Targovishte	87	340	717
Haskovo	130	4 000	11 000
Shoumen	117	800	1 390
Yambol	110	1 994	1 996
Total	3 070	71 557	169 383

b

Table 5: East-Balkan pigs

District	Numberf of herds	Number of pigs
Burgas	43	1 700
Varna	76	5 600
Shoumen	33	3 109
Total	152	10 409

Annex III

Model template for wild boar surveillance reports

(Template provided by the database operator FLI Wusterhausen)

Explanation concerning the key for CSF surveillance and testing

Key for the collection of blood samples from pigs for testing of CSF

Number of pigs per unit or holding	CSF - Prevalence		
	20%	10%	5%
	Number of pigs to be sampled(n)		
10	8	10	10
20	10	16	19
30	11	19	26
40	12	21	31
50	12	22	35
60	12	23	38
70	13	24	40
80	13	24	42
90	13	25	43
100	13	25	45
120	13	26	47
140	13	26	48
160	13	27	49
180	13	27	50
200	13	27	51
250	14	27	53
300	14	28	54
350	14	28	54
400	14	28	55
450	14	28	55
500	14	28	56
600	14	28	56
700	14	28	57
800	14	28	57
900	14	28	57
1.000	14	29	57
1.200	14	29	57
1.400	14	29	58
1.600	14	29	58
1.800	14	29	58
2.000	14	29	58
3.000	14	29	58
4.000	14	29	58
5.000	14	29	59
6.000	14	29	59
7.000	14	29	59
8.000	14	29	59
9.000	14	29	59
10.000	14	29	59
> 10.000	14	29	59

The table gives the key for sampling the number of individual pigs per holding if a confidence

of 95% I applied in order to detect at least one infected pig and the percentage of infected pigs is either at 5%, 10% or 20 % level.

Annex V

Legal base to be applied on the Control of CSF – key measures only – (Complete list see FVO inspection report 2007-7483 –MR final chapter 10)

EU acquis	Corresponding Bulgarian legal measures
Council Directive 80/1095/EEC (Country clearance from CSF in MSs)	- ORDINANCE 04/ 15.02.2007 on prophylaxis, restraint and eradication of classical swine fever (SG 21/ 09.03.2007)
Council Directive 82/894/EEC (Community notification of disease)	ORDINANCE 23 laid down the turn procedure for notification and registration contagious animal diseases
Council Directive 2001/89/EC (CSF Control Directive)	ORDINANCE 04/ 15.02.2007 on prophylaxis, restraint and eradication of classical swine fever (SG 21/ 09.03.2007)
Commission Decision 2002/106/EC (CSF Diagnostic manual)	Directly applicable
Commission Decision 2006/805/EC (CSF control measures in certain MSs)	Order RD)(- 175/ 21.12.2006
Commission Decision 2006/800/EC (CSF control plan BG – vaccination of wild boar)	Directly applicable and in force
Commission Decision 2006/876/EC (CSF control plan for BG in 2007)	Directly applicable and in force
Commission Decision 2007/19/EC (EC approval of BG contingency plan for CSF)	Directly applicable and in force; NVS notification via RVS to Local VS and in parallel to all stakeholders
Council Decision 90/638/EEC (Community criteria for disease control programmes)	ORDINANCE 04/ 15.02.2007 on prophylaxis, restraint and eradication of classical swine fever (SG 21/ 09.03.2007)
Council Directive 2002/99/EC (AH rules governing products of animal origin for HC)	ORDINANCE 37/31.03.2006 on health requirements toward animals from which raw materials and foodstuffs for human consumption are produced
Council Directive 64/432/EEC Art. 14 (Herd health surveillance and database)	ORDINANCE 48/ 20.04.2006 on health requirements for bovine animals and swine in their movement between the Republic of Bulgaria and the Member States of the European Union and for definition of the health status of regions and units of their origin and the supplementary guarantees to be met (Published in SG No 48/ 13.06.2006
Council Directive 92/102/EEC (Animal Identification)	ORDINANCE № 61/9.05.2006 on the measures and procedures for identification of animals, registration of animal holdings and the availability to

	access the data base for identified animals and registered animal holdings (<i>Published in SG 47/09.06.2006</i>)
Commission Decision 2000/678/EC (Holding registration – pig database)	ORDINANCE 48/ 20.04.2006 on health requirements for bovine animals and swine in their movement between the Republic of Bulgaria and the Member States of the European Union and for definition of the health status of regions and units of their origin and the supplementary guarantees to be met (<i>Published in SG No 48/ 13.06.2006</i>)
Council Directive 89/662/EEC (Veterinary checks on products in intra-community trade)	ORDINANCE 13/03.02.2006 laying down the conditions and order for carrying out border veterinary control during import, export and transit of animals (<i>Published in SG 17/ 24.02.2006</i>)
Council Directive 90/425/EEC (Veterinary checks on live animals in intra-community trade)	ORDINANCE №26/28.02.2006 on the Standards for Protection and Humane Handling of Animals during their Transportation
Council Regulation (EC) 853/2004 (Hygiene of food of animal origin)	Directly applicable and in force
Council Regulation (EC) 854/2004 (Veterinary controls on food of animal origin)	Directly applicable and in force
Council Directive 96/93/EEC (Veterinary certification)	ORDINANCE 04/ 15.02.2007 on prophylaxis, restraint and eradication of classical swine fever (SG 21/ 09.03.2007)
Commission Regulation (EC) 599/2004 (Template certificate for Intra-community trade)	Directly applicable and in force
Council Regulation (EC) 882/2004 (Veterinary controls and enforcement in the EU on verification of compliance with the veterinary acquis)	Directly applicable