Information from Romania on the Classical Swine Fever Situation

11th – 12th October, 2010, Brussels
Prepared in the period before accession to European Union, the CSF Surveillance, Control and Eradication Program in Romania in 2007 – 2010 also included emergency vaccination plans of domestic and wild pigs, being approved by the European Commission, as an applicable transitory measure under the Treaty of Accession.
## Surveillance, Control and Eradication Program 2007 – 2010
### Historical Data (2)
#### Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>National Costs</th>
<th>Co-financing</th>
<th>Other EC support measures</th>
<th>Observations</th>
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<tbody>
<tr>
<td>2007</td>
<td>23,000,000 €</td>
<td>5,250,000 €</td>
<td>7,000,000 marker vaccine 2,000,000 conv. live vaccine</td>
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<tr>
<td>2008</td>
<td>13,601,086 €</td>
<td>254,428 €</td>
<td></td>
<td></td>
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<tr>
<td>2009</td>
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<td>2,500,000€ approved</td>
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<td>126,440 € (30.06.10)</td>
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Surveillance, Control and Eradication Program 2007 – 2010
Historical Data (3)
Domestic pigs surveillance

<table>
<thead>
<tr>
<th>Year</th>
<th>Serological tests</th>
<th>Virological tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of samples tested</td>
<td>Number of samples tested positive</td>
</tr>
<tr>
<td></td>
<td>Number of samples tested</td>
<td>Number of samples tested positive</td>
</tr>
<tr>
<td>2006</td>
<td>66,041</td>
<td>896</td>
</tr>
<tr>
<td>2007</td>
<td>121,602</td>
<td>689</td>
</tr>
<tr>
<td>2008</td>
<td>105,917</td>
<td>136</td>
</tr>
<tr>
<td>2009</td>
<td>123,173</td>
<td>0</td>
</tr>
<tr>
<td>2010 September 21st</td>
<td>3,697</td>
<td>3435</td>
</tr>
<tr>
<td>GP</td>
<td>Vaccination control</td>
<td>(Sero-conversion)</td>
</tr>
<tr>
<td>2010 September 21st</td>
<td>9,893</td>
<td>0</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
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## Surveillance, Control and Eradication Program 2007 – 2010
### Historical Data (4)
#### Wild boars surveillance

<table>
<thead>
<tr>
<th>Year</th>
<th>Virological tests</th>
<th>Serological tests</th>
<th>Other tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of samples tested</td>
<td>Number of samples tested positive</td>
<td>Number of samples tested positive</td>
</tr>
<tr>
<td>2006</td>
<td>7,780</td>
<td>18</td>
<td>6,136</td>
</tr>
<tr>
<td>2007</td>
<td>8,978</td>
<td>25</td>
<td>7,701</td>
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<td>2008</td>
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<tr>
<td>2009</td>
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<tr>
<td>2010</td>
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<td>4,536</td>
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*September 21st*
## Surveillance, Control and Eradication Program 2007 – 2010
### Historical Data (5)
#### Domestic pigs vaccination

<table>
<thead>
<tr>
<th>Year</th>
<th>Total no. of herds (non professional holdings)</th>
<th>Total no. of animals</th>
<th>Information on the vaccination program</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Nr. of pigs vaccinated *</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No. of vaccine doses administered</td>
</tr>
<tr>
<td>2006-2007</td>
<td>1,900,164</td>
<td>5,400,000 (turnover)</td>
<td>9,949,672</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>10,490,103</td>
</tr>
<tr>
<td>2008</td>
<td>1,509,200</td>
<td>4,800,000 (turnover)</td>
<td>5,819,623</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6,082,319</td>
</tr>
<tr>
<td>2009</td>
<td>1,296,652</td>
<td>3,548,548 (turnover)</td>
<td>5,769,620</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6,011,840</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>No. of hunting areas</td>
<td>No. of baits applied</td>
<td>No. of wild boars</td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>2009</td>
<td>2079</td>
<td>214,304</td>
<td>63,000</td>
</tr>
<tr>
<td>2010</td>
<td>141</td>
<td>10,290</td>
<td>3,047</td>
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</tbody>
</table>
Surveillance, Control and Eradication Program 2007 – 2010
Historical Data (7)
CSF – outbreaks 2005 - 2010

Number of CSF outbreaks in domestic pigs 2001-2008

- Number of outbreaks
1. Conclusion

- The old categorization of pigs (a. backyard holdings with maximum 3 pigs without sows for reproduction; b. backyard pigs with sows for reproduction; c. commercial farms) has been abandoned and has been replaced by a new categorization which is based on the vaccination policy:
  - A) Pigs which are vaccinated: backyard pigs which are not allowed to be slaughtered in slaughterhouses; trade is only allowed within the commune of origin.
  - B) Pigs which are not vaccinated, i.e. pigs from large commercial holdings with mandatory bio-security. These animals have access to slaughterhouses and the national market.

Recommendation

- Since vaccination stops at the end of the year, categorizing pigs based on vaccination will not function any more. – It is recommended to extend the categorization of holdings on the basis of risk and bio-security criteria.

Actions taken:

- Recommendation was made considering the year 2010 by regulating the possibility of backyard holdings to be registered within the Chamber of Commerce and veterinary registered within type A commercial farms, on the condition of complying with animal health and welfare conditions provided by the veterinary legislation. A guide comprising bio-security criteria was developed to support farmers.
- Additionally, NSVFSA developed specific detailed procedures on control of domestic pigs movement, including certification of livestock movement on live animals market or slaughterhouses.
- Specific measures of visiting type A commercial holdings by private and official veterinaries to determine the health status of animals and farms have been established.
- Additional, serological and virological tests have been established for domestic pigs of type A commercial farms which leave the exploitation to a live animals market or slaughterhouses.
2. Conclusion

- A CSF network has been established and an expert group exists.

Recommendation

- The expert group should also meet regularly, in peace time, and simulation exercises have to be performed. The expert group is encouraged to take the lead in the simulation exercises (and program planning).

3. Conclusion

- Change of responsibility to the Ministry of Interior is considered to be a good decision for the handling of future CSF outbreaks.

Actions taken:

- a) In 2010, 41 CSF simulation exercises have been carried out at each county level, excluding Bucharest.

- b) A contract for purchasing two high-capacity mobile incinerators was concluded by NSVFSA to be used in a crisis, especially for those units with large numbers of pigs.
4. Conclusion

- The vaccination campaign of wild boar has not been performed in the whole country; however, the risk zones were identified – a “sanitary cord” along the borders with Moldova, Ukraine, Serbia and Bulgaria was established and vaccination will be continued in these areas as long as necessary. If necessary, vaccination will be performed in particular areas inside the country.

Recommendation

- The number of wild boar should be reassessed and the EU wild boar database which will become operable from CRL shall be implemented: Training for hunters to perform vaccination and sampling should take place. The expert group should take the initiative for this task.
- Measures shall be taken to ensure that 100% of wild boars shot or found dead are subject to testing. Carcasses should only be released for human consumption after test results have been obtained.

Actions taken:

- The last PCR test at wild boars was carried out in January 2009, without virus isolation being possible at the Community Reference Lab.
- Relationships with hunting associations are clearly defined, CVO being appointed member of the National Hunting Council. County labs practically tested all wild boars samples received. Special situations haven’t been notified by the managers of hunting funds.
CONCLUSIONS & RECOMMENDATIONS

5. Conclusion
- Bio-security measures in commercial farms are considered appropriate, however no bio-security guidelines for smaller farms and backyard holdings exist.

Recommendation
- Appropriate bio-security rules should be created and implemented for small commercial farms (a new category of “microfarms” should be introduced).

6. Conclusion
- Sampling strategy and lab contingency plans for the laboratory seem appropriate for the non vaccination time in 2010.

Recommendation
- In order to reduce costs and increase throughput the NRL is encouraged to establish the method of pooling of samples for RT –PCR. However, it must be ensured that sensitivity is still sufficient.

Actions taken:
- NSVFSA elaborated a guide on bio-security measures for small farms and backyard farms, these guides going to be published and transmitted on site.
- RT-PCR testing procedure was not applied in pools.
- To reduce costs, taking of samples for serological examination of unvaccinated clinically healthy pigs from backyard farms have been replaced with visiting of farms by official veterinarians and filling in of a checklist including identification of pigs, movements recently made and their traceability, as well as animal health status. In 2010, approximately 45,000 inspection reports of backyard farms have been checked, that is 3% of the existing number.
General Recommendations:

- In order to more effectively control CSF in wild boar trans boundary co-operation should be improves.
- Inspection visits by vets in swine holdings should be based on clinical examinations and check lists - experiences from Bulgaria shows hat this is a very valuable tool.
- In cases of unclear febrile disease of unknown etiology samples taken should exclude the presence of CSF (and ASF).
- The CSF control strategy for wild boar strategy should be coordinated for the whole country.

Actions taken:

- Although wild boars density on Romanian territory is low, for achieving a unitary immunity of all species receptive to CSF virus, as of 2008 vaccination was applied on the whole territory until the end of 2009. emergency vaccination programs of wild boars for 2010 provides their vaccination on a protection area of 20km at borders with Ukraine and Moldavia.
- Romania’s proposal to continue vaccinating wild boars of high-risk areas on the North and East border in 2011, although the pest virus presence was not identified anymore, seems to be no longer eligible for Community co-financing, not being considered an emergency situation, according to European formal legislative definitions.
A new category of holdings was enacted, namely Type A Commercial Holdings:

- registered with the Chamber of Commerce
- veterinary registered
- receiving state aids
- undergoing permanent veterinary control in applying animal health program
- monthly checked by an official veterinary, by drawing up of control record including clinical examination and animal movement
- compliance with specific bio-security measures (legislative draft)
- compliance with legislative requests set forth for animal movement and additional certification for live animals to leave the holding (legislative project)
- can slaughter animals at registered slaughterhouses, production being intended for the national market (legislative draft)
Romania provided the Commission with information proving that CSF situation has improved significantly in this Member State. However, considering the information available, additional zoo-sanitary measures for CSF control should further on be applied in Romania. It is thus proper for Romania to be included in part III of Appendix to Decision 2008/855/EC. Romania’s introduction in part III of Appendix to Decision 2008/855/EC should be revised according to the results of the European Union inspection, which will be carried out in Romania in the first semester of 2010.

The new Article 8 of Decision 2008/855/EC allows Romania to ship meat and meat products obtained in the “lohn” system to other Member States.

FVO mission carried out between March 16th – 26th, 2010, evaluated CSF control measures in Romania.

- In units approved for intra-Community commerce in the “lohn” system, no non-conformities have been identified.
FVO mission carried out between March 16\textsuperscript{th} – 26\textsuperscript{th}, 2010 for evaluation of CSF control measures in Romania (1)

- Even since June 2010, NSVFSA sent to FVO the Action Plan for compliance with recommendations made within the draft report.

- **Recommendations:**
  1. The need of elaborating instructions leading to the implementation of surveillance plans approved for 2010, as provided in Article 19(1)(b) of Decision 2009/883.

  **Actions taken:**
  - All instructions necessary for the implementation of surveillance plans have been elaborated and spread on the territory. As part of the answer to FVO recommendations, NSVFSA attached the proper documents.
  - An intermediary report on the first 6 months of 2010 regarding surveillance data and related costs was sent to the European Commission – Programs Directorate, for evaluating eligible costs for co-financing.

  2. Prevention of possible **conflict of interests** for veterinaries applying the strategic program in swine holdings.

  **Actions taken:**
  - The problem was solved by forcing veterinaries to make a statement on own responsibility for the conflict of interests.

  3. **Contingency plan for African swine fever**

  **Actions taken:**
  - As we already informed the FVO in June, last year, the contingency plan for African swine fever was improved and sent on sire together with a guide for differential diagnosis.
4. **Animals welfare** at slaughtering, with reference to using the T61 substance as killing method.

**Actions taken:**
- FVO was already notified that references to T61 substance in the operational manual and the guide for pigs slaughtering under human conditions were removed.

5. **Keeping a central database where data regarding all swine movements to be mentioned**

**Actions taken:**
- The improved procedure stipulates that county SVFSA have a local database where information are monthly sent, in an electronic version at NSVFSA.

6. **Interdiction of feeding the pigs from backyard farms with animal waste.**

**Actions taken:**
- NSVFSA guaranteed that no catering waste or other animal industries generated waste are used in backyard farms. Controls of these waste generated units are made on a regular basis. However, peasants still continue to feed pigs traditionally with waste of human food.

7. Application of proper measures to all levels in order to reach the targets established for surveillance and vaccination.

- Wild boars of risk areas set on the Northern and Eastern border have been vaccinated and surveillance still continues. *As described above, for cost reduction, serological surveillance of clinically healthy pigs was replaced with inspection visits monthly performed by official vets.*

8. **Proper certification of meat transports coming from areas listed in Decision 2008/855/. Meat coming from Hungary, improperly certified.**

- Necessary trainings took place.
Surveillance, Control and Eradication 2010 (1)

- 2010-Pigs livestock situations
- 295 Commercial Farms with 2,000,000 pigs on July 1st, 2010.
- 1,169,845. non-professional holding (backyard) with approx 3,500,000 pigs on September 15th, 2010.

In 2010 44,724 clinical inspections have been performed and 1,791,585 pigs were checked;

- Animals identification and expenses with the National Database was 100% financed from the state budget - 29,090,863 Euro.
Surveillance, Control and Eradication Program 2010 92
CSF new legislation

- Swine movement on RO territory
- Bio-security in swine holdings
- Practical CSF Diagnosis Guide for practicing veterinarians
- Holdings inspection report
## Surveillance, Control and Eradication 2010 (3)

Surveillance of CSF in non-professional holdings during January 1\(^{st}\) – September 31\(^{st}\), 2010

<table>
<thead>
<tr>
<th>County</th>
<th>Serological exam with ELISA classic kit</th>
<th>Fluorescence antibody test (FAT)</th>
<th>RT-PCR organs</th>
<th>RT-PCR on blood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TS + _ D</td>
<td>TS + _</td>
<td>TS + _</td>
<td>TS + _</td>
</tr>
<tr>
<td>42</td>
<td>3697 3435 2100 380</td>
<td>567 - 567</td>
<td>37 - 37</td>
<td>34 - 34</td>
</tr>
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</table>
Wild boars Virological Surveillance 2010

<table>
<thead>
<tr>
<th>Wild boars age</th>
<th>Elisa</th>
<th>FAT</th>
<th>RT-PCR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample</td>
<td>P</td>
<td>N</td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>1402</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>1-2 years</td>
<td>1307</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>&gt;2 years</td>
<td>1827</td>
<td>220</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4536</td>
<td>353</td>
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</table>
## Surveillance of CSF in commercial holdings during 1-st of January-25-th of september 2010

<table>
<thead>
<tr>
<th>Pig category</th>
<th>RT-PCR blood on preservative</th>
<th>RT-PCR organs</th>
<th>Fluorescence antibody test (FAT)</th>
<th>ELISA E2</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>TS</td>
<td>+</td>
<td>_</td>
<td>TS</td>
</tr>
<tr>
<td>Sows</td>
<td>45</td>
<td>-</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Boars</td>
<td>10</td>
<td>-</td>
<td>10</td>
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</tr>
<tr>
<td>Fattening pigs (HS)</td>
<td>76</td>
<td>-</td>
<td>76</td>
<td>628</td>
</tr>
<tr>
<td>Fattening pigs (SS)</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Weaning pigs</td>
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<td>340</td>
<td>800</td>
</tr>
<tr>
<td>Piglets</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>471</td>
<td>-</td>
<td>471</td>
<td>1526</td>
</tr>
</tbody>
</table>
Strategies for 2011

For 2011, the eradication program will be applied on the entire Romanian territory. Concerning the vaccination, strategy adopted foresees the cessation of the vaccination for all domestic pigs and emergency vaccination only for the wild boars, in the risk areas. The sanitary veterinary surveillance of domestic pigs and wild boars through clinical, necropsy and laboratory exams will be applied to the entire territory.

The program will be developed taking account of:

- the provisions of the European legislation for the appliance of CSF control and eradication measures;
- the presence of the rearing system of domestic pigs, with many non-professional holdings;
- the movement of pigs originated in non-professional holdings;
- the presence of different stages for implementing the general rules of bio-security in commercial industrial holdings, sanitary veterinary registered, and in non-professional holdings (Commercial Type A);
- the reduced density of wild boars population, under 1 specimen/1 km²;
- the lack of information related to CSF in domestic pigs and wild boars in third countries which Romania are neighbored.
Main objectives for 2011

- the rapid and efficient appliance of control and eradication measures of the disease on the entire Romanian territory;
- the control of live pigs movement from the non-professional holding and of pork-meat and pork by-products
- the surveillance of CSF through monitoring of live pigs, dead pigs or dead or injured wild boars;
- the adequate registration of epidemiological data, the appliance of disease control and eradication measures and of program financial aspects
- Application of wild boars emergency vaccination only in high risk epidemiological areas;
- the changing of Romania’s epidemiological status, in order to be included in Directive 2008/855/EC Appendix II;
- An emergency vaccination policy for the wild boars from high epidemiologic risks areas at the N and NE border with third countries will be applied, on buffer zones of 20 km, where the epidemiological situation is not known, taking into account the density of the wild boars and their movement;
Main Objectives regarding surveillance in 2011.

- Early detection of CSF infections in all type of holdings
- Shortening the period of high risk of classical swine fever;
- Testing for ASF of all suspicions for CSF which were ruled out by laboratory test.
Clinical investigations in Commercial farms

- **Daily clinical inspections** of all pigs, carried out by the private veterinarians or keepers of livestock. Result of clinical examination shall be recorded in farm registers.
- **Weekly**—private veterinarians will perform clinical examination including mandatory measurement of body temperature to detect a 10% prevalence and 95% confidence.
- **Official monthly control conducted** by the official veterinarian, with the development of a checklist for evaluation.
For viral exams the samples will be taken from:

- Affected pigs that during clinical exams presented fever and clinical signs of classical swine fever. Samples of blood on the anticoagulant will be mainly taken for the RT-PCR test;
- Dead pigs or pigs in agony that at the postmortem examination show lesions indicating classical swine fever. Samples of organs and sternum will be taken;
- Dead pigs, not showing lesions of classical swine fever. Monthly, from each farm 10 sets of organs for virological exams will be taken.
Serological surveillance in commercial farms in 2011

Serological surveillance

- In case of holdings with less than 3000 animals at every 3 months, samples will be taken from 1% of animals, but not less than 5 samples.
- In case of holdings with more than 3000 animals, samples will be taken from 1% of animals. This number of samples will be monthly divided.
Surveillance in back yards in 2011

Clinical examination will be performed as follows:

- Monthly clinical inspection at 3% of nonprofessional holdings. The veterinarian will fill in a checklist.
- Clinical examination when the owner notifies illness or mortality in his holdings
- Clinical examination in case of animal movement for selling purposes (animal certification).
- Monthly random official clinical examination of 10% of backyard farms from each village.
Virological surveillance in backyards in 2011

**Virological tests on samples taken as follows:**

a) blood will be taken from animals that during clinical examinations, showed fever and clinical signs of classical swine fever for RT-PCR purposes;

b) samples of organs and sternum will be taken from dead animals that have lesions of classical swine fever

c) from all pigs slaughtered between January and November

d) from 5% of pigs slaughtered in December
Surveillance expenses in 2011

- Clinical investigation of pigs at arrival on animal market
- Virological surveillance:
  - on ill animals showing fever and clinical signs. Blood samples will be taken from these animals for RT-PCR purposes.
  - on dead animals with CSF clinical signs and lesions
Surveillance in slaughterhouses in 2011

- Blood samples will be taken from ill animals with fever and clinical signs on EDTA for RT-PCR purposes
- Samples will be taken from 5% of each lot of indigenous animals for immunofluorescence tests performance.
Sampling strategies of wild boar in 2011

- Samples will be collected from all hunted wild boars, found dead or injured, and will be subject to virological and serological examinations.
- The following sets of samples will be taken for CSF monitoring:
  a) organs: tonsil, spleen, lymph nodes, kidney, parts of ileum;
  b) blood from heart or thoracic-abdominal fluid;
  c) sternum;
Viral surveillance of wild boar in 2011

The following virological tests will be used:

- RT-PCR to detect specific viral genome, on samples taken from:
  - wild boars found dead or injured;
  - hunted wild boars, which have lesions that induce the suspicion of classical swine fever;
  - all wild boars up to the age of 1 year.
- immunofluorescence test on samples from all hunted animals or found dead;
- virus isolation on cell culture in all positive cases.
Serological surveillance of wild boar in 2011

- Within the hunting funds where in 2009 vaccination against classical swine fever was carried out, in 2010 vaccination will not be performed and serological monitoring shall be performed only on samples taken from animals up to 1 year of age, during the hunting season of the second half of the year.

- Within the hunting funds where vaccination will continue in 2010, serological tests shall be performed on samples taken from all hunted wild boars regardless of age category.

- Within the hunting funds where in 2009 vaccination against CSF was not carried out, serological tests shall be performed on samples from all hunted wild boar.
Conclusions

- No outbreak of CSF since October 2007.
- Annual surveillance, control and eradication programs have been properly implemented and in 2008 – 2010 no virus circulation has been identified.
- Due to the low density of wild boars on national territory, mass vaccination of wild boars is not justified.
- Vaccination cord of wild boars is reduced only to the risk areas at the borders with Ukraine and Moldavia.
- The number of swine backyard farms and the number of pigs from these holdings was significantly reduced in 2007 – 2010.
- Non-professional holdings are monthly visited by official veterinarians and checklists are drawn up. The percentage of holdings visited is over 3% of their total number.
- 41 simulation exercises for classical swine fever were carried out un 41 counties.
- The National Center for Disease Control is operational and run by Ministry of Administration and Internal Affairs in coordination with the Prime-Minister (National Committee for Emergency Situations). Reaction ability in case of emergency improved.
- Legislative projects ensure live swine movement control and traceability from type A commercial farms and meat obtained in slaughterhouses, different than the ones approved for intra-Community trading. Meat obtained will be validated on the national market.
Requests

- Meeting of specific European legislation and OIE requests empowers Romanian authorities, farmers and meat industry to request the introduction of Romania in Appendix II of Decision 2008/855/EC
Thank you for your attention !