



Ministry of Agriculture

**Aujeszky's disease Control and Eradication
Programme
Hungary**

**PAFF
13-14 January, 2015**



Conditions to list a Member State in Annex I of 2008/185/EC

- Condition 1:** Council Directive 64/432/EEC on animal health problems affecting intra-community trade in bovine animals and swine
- Condition 2:** OIE - Terrestrial Animal Health Code (Chapter 8.2.)
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Condition 1: Article 10 of Directive 64/432

- the nature of the disease and the history of its occurrence in its territory
 - the results of surveillance testing based on serological, pathological or epidemiological investigation and on the fact that the disease must by law be notified to the competent authorities
 - the period over which the surveillance was carried out
 - the period during which vaccination against the disease has been prohibited and the geographical area concerned by the prohibition
 - the arrangements for verifying the absence of the disease
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the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

- **1970:** eradication of large-scale pig-farms started
 - applying stock replacement
 - generation exchange and
 - selection
 - **1981:** Aujeszky's disease is a compulsory notifiable disease
 - Large-scale farms: eradication with financial support from the state
 - Small-scale farms: voluntary eradication programme
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the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

- **1998:** National Eradication Programme for AD

Regional principle at county level, two, well-distinguished stages

1. **First stage**

pig stocks had to be eradicated from the field virus

Vaccination (DIVA vaccine), interruption of the infection chain, consequent observance of epidemiological regulations, strict supervision and monitoring

2. **Second stage**

Ban of vaccination of pig stocks, comprehensive assessment of epidemiological status of the region, analysis of the risk of reinfection

the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

- **2001:** Ban on vaccination against AD in small-scale pig farms in the whole territory of Hungary.
- **2003:** „M” (free) and „MV” (vaccinated free) stock should be regularly monitored with gE-ELISA serologic tests: (Decree 36/2003. (III. 17.) MARD.)

Rules of monitoring of every farm:

- each boar in every 6 months,
 - serologic tests of sows every year (each animal or if there is more than 20 sows: 10%, but at least 20 sows)
 - 20% of the sows which farrowed that year
 - every pig in the artificial insemination station (semen collection centre) in every 6 months
 - boars used for public breeding in every 6 months
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the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

- **Since 2005:** if even one gE-ELISA positive animal on small-scale farm has been found, the stock has to be eliminated
 - **from 15th of June 2006** the ban on vaccination was extended to large-scale pig farms
 - if gE seropositive pig was found in a large-scale farm:
 - movement restriction
 - insemination and mating was suspended
 - pigs could only be transported to slaughterhouses
 - In „C” (infected) stocks insemination was prohibited and the stock had to be slaughtered as soon as possible.
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the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

- Small-scale farms:
 - serological testing of all boars, sows and pregnant gilts every year
 - minimum 5% of the virgin breeding gilts are also tested every year
 - **2007:** Starting of serological tests of fattening farms
 - **17 December 2008:** 2008/988/EC: approved national control programme for AD
 - **2009:** MARD Regulation 30/2009 (III. 27.)
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the nature of the disease and the history of its occurrence in its territory
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Finishing of the National Control Programme

January 2011: Immediate slaughter of vaccinated pigs:

All pigs of large-scale farms which were vaccinated before 15 June 2006 (category “MV”, disease-free with vaccination) - had to be slaughtered immediately with state compensation → re-classification of the whole remaining (non-vaccinated) herd based on the result of the laboratory examination

Re-classification

Large-scale breeding farms:

testing of all breeding animals

fattening animals kept on the breeding farms had to be tested (20% prevalence with 95% confidence)

Large-scale fattening stocks: fattening animals had to be tested with 10% seroprevalence with 95% confidence.



the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

Measures in large-scale pig farms 2011-2014

- Control of free status of large-scale pig farms:
 - All boars every six months
 - All female pigs have to be tested every six months
 - If less than 20 sows are kept in the farm, 50% of the sows had to be tested
 - If more than 20 sows are kept in the farm, 5% of the sows had to be tested
 - 20% of the gilts farrowed in 6 months
 - Fattening pigs kept on the breeding pig farms had to be tested (20% prevalence with 95% confidence) every year
 - In fattening farms, pigs had to be tested taking into consideration 20% prevalence with 95% confidence every year
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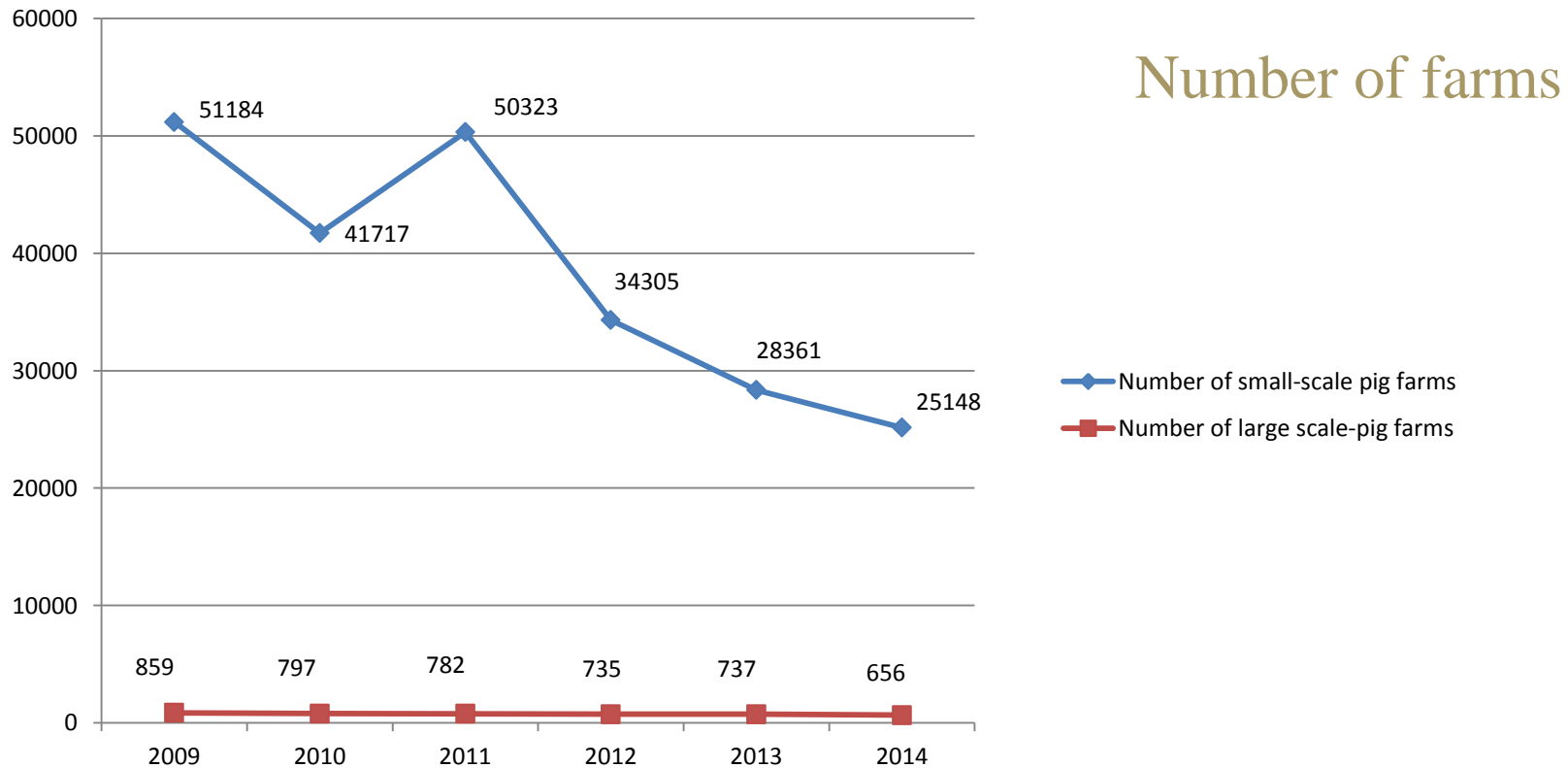
the nature of the disease and the history of its occurrence in its territory
the period over which the surveillance was carried out

Control of free status in small-scale pig farms 2011-2014

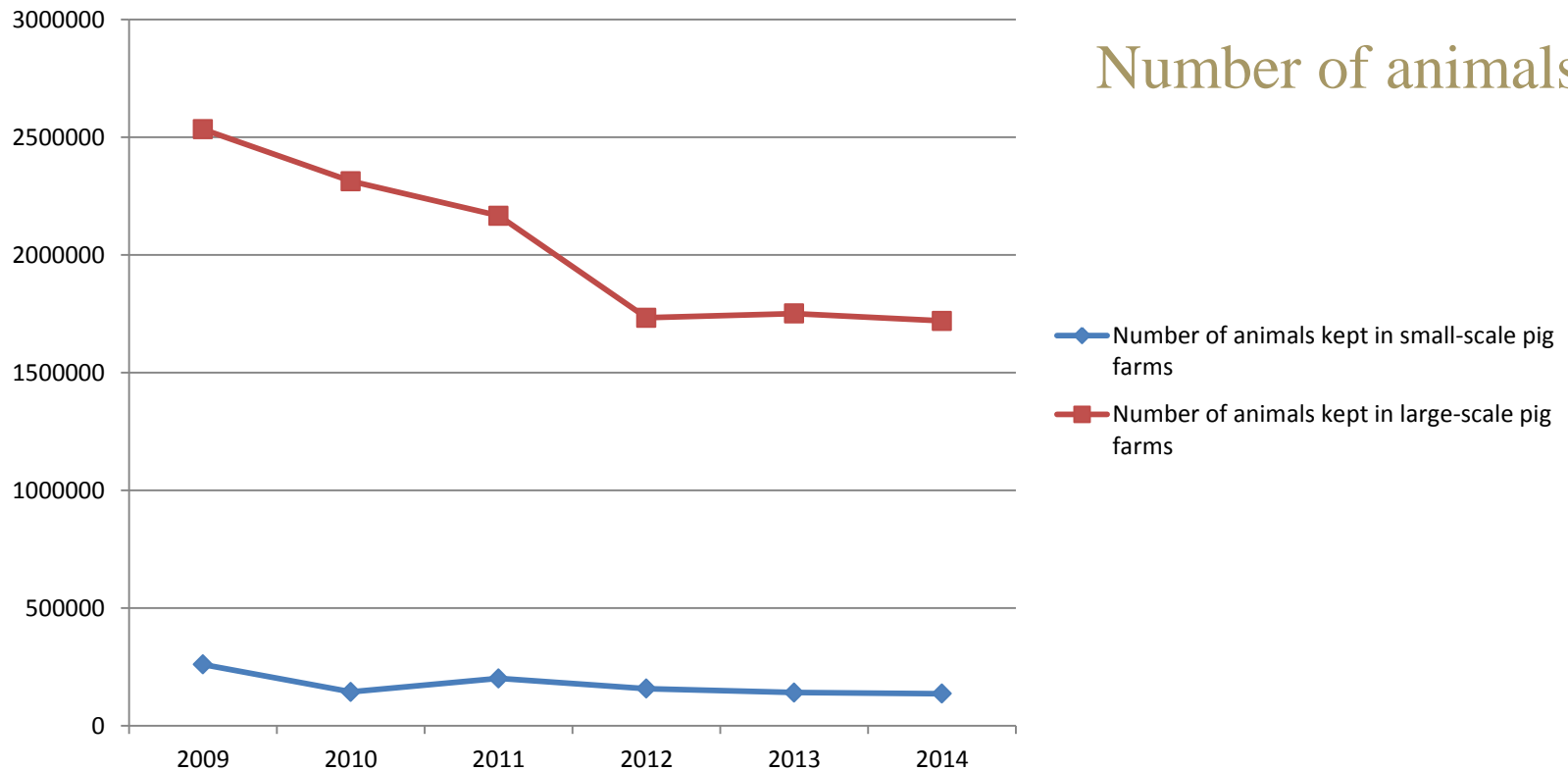
- In breeding farms:
 - all boars and all sows , all pregnant breeding gilts and min. 5% of animals over 4 months had to undergo serological examinations.
- In fattening stocks
 - 20% seroprevalence with 95% confidence
 - In the farms keeping less than 20 pigs 10% of the animals had to be tested

Since 2012: examinations of shot wild boars - PCR tests

the results of surveillance testing based on serological, pathological or epidemiological investigation

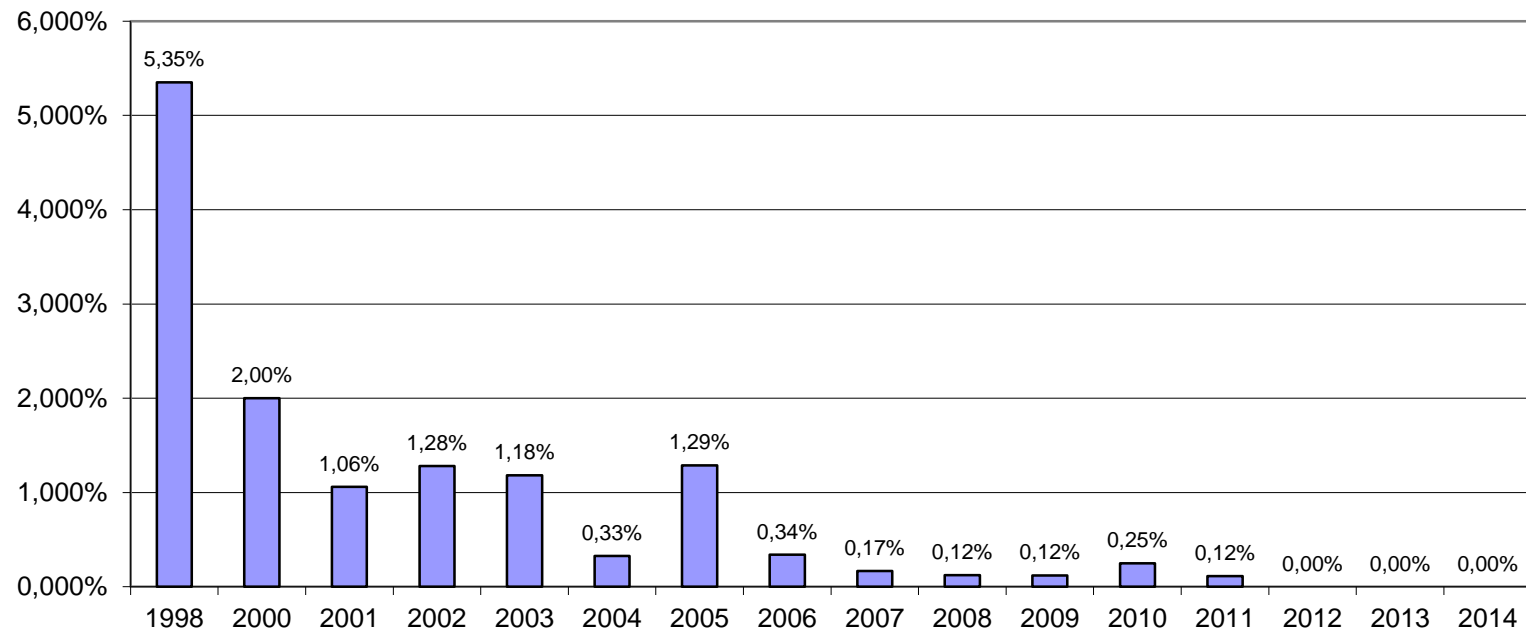


the results of surveillance testing based on serological, pathological or epidemiological investigation



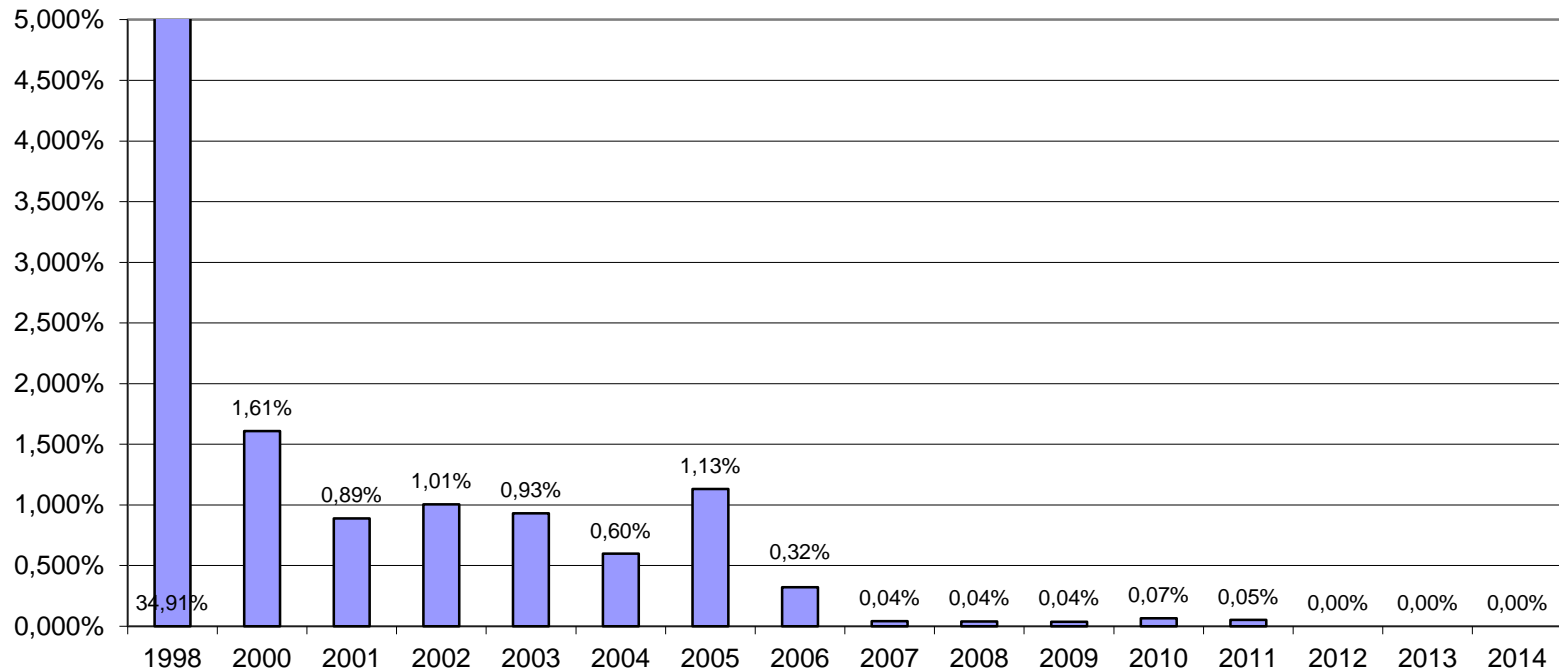
the results of surveillance testing based on serological, pathological or epidemiological investigation

Percentage of Aujeszky's disease seropositive stocks
(including small and large scale farms, 1998-2014)



the results of surveillance testing based on serological, pathological or epidemiological investigation

Percentage of Aujeszky's disease seropositive animals
(including small and large scale farms, 1998-2014)



the results of surveillance testing based on serological, pathological or epidemiological investigation

Results of surveillance on small-scale pig farms (2011-2014)
Number of farms

	Small-scale pig farms					
	Backyard farms keeping breeding animals			Backyard farms keeping only fattening animals for marketing purpose		
	Number of tested farms	Number of seropositive farms	Number of viropositive farms	Number of tested farms	Number of seropositive farms	Number of viropositive farms
2011	12539	15	0	5926	5	0
2012	10499	0	0	4153	0	0
2013	9854	0	0	3808	0	0
2014 mid-year	9887	0	0	2791	0	0

the results of surveillance testing based on serological, pathological or epidemiological investigation

Results of surveillance on small-scale pig farms (2011-2014)
Number of animals

	Animals in small-scale pig farms					
	Tested breeding animals			Tested fattening animals		
	Number of tested animals	Number of seropositive animals	Number of viropositive animals	Number of tested animals	Number of seropositive animals	Number of viropositive animals
2011	32830	36	0	20128	6	0
2012	27258	0	0	16133	0	0
2013	26355	0	0	17043	0	0
2014 mid-year	30643	0	0	20255	0	0

the results of surveillance testing based on serological, pathological or epidemiological investigation

Results of surveillance on large-scale pig farms (2011-2014) Number of farms

	Large-scale pig farms					
	Backyard farms keeping breeding animals			Backyard farms keeping only fattening animals for marketing purpose		
	Number of tested farms	Number of seropositive farms	Number of viropositive farms	Number of tested farms	Number of seropositive farms	Number of viropositive farms
2011	473	2*	0	170	0	0
2012	450	0	0	159	0	0
2013	474	0	0	234	0	0
2014 mid-year	437	0	0	119	0	0

* In these 2 farms vaccinated animals were kept, which were vaccinated before 15 June 2006 (the ban on vaccination).

the results of surveillance testing based on serological, pathological or epidemiological investigation

Results of surveillance on large-scale pig farms (2011-2014) Number of animals

	Animals in large-scale pig farms					
	Tested breeding animals			Tested fattening animals		
	Number of tested animals	Number of seropositive animals	Number of viropositive animals	Number of tested animals	Number of seropositive animals	Number of viropositive animals
2011	49671	15*	0	3802	0	0
2012	29374	0	0	4171	0	0
2013	46418	0	0	8022	0	0
2014 mid-year	27288	0	0	4238	0	0

* These gB positive but gE negative animals were vaccinated before 15th June 2006 (the ban on vaccination) and were slaughtered after the gB seropositive test results had arrived.



the results of surveillance testing based on serological, pathological or epidemiological investigation

Results of the examination in wild boars

- in 2012

A number of 60 tonsils originating from wild boars were tested by PCR examination for the presence of Aujeszky's disease virus

All samples were negative when tested for Aujeszky virus presence.

- in 2013

In 2013 2 862 wild boar samples were investigated by PCR method

Only 11 samples gave positive results for Aujeszky's disease thus 0,38% of the investigated samples were positive for Aujeszky's disease.

- in 2014

In 2014 4 362 wild boar samples were investigated by PCR method

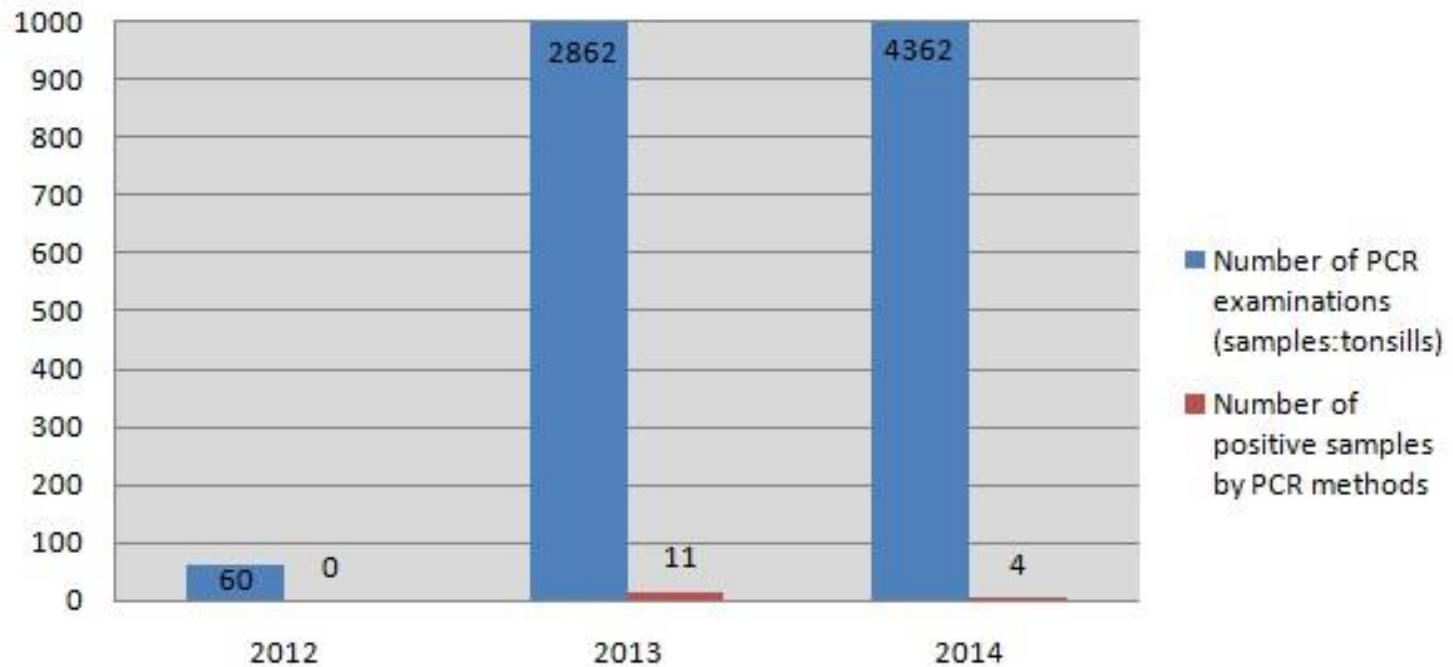
4 samples gave positive results for Aujeszky's disease, which is 0,09 % of the investigated samples for Aujeszky's disease.



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the results of surveillance testing based on serological, pathological or epidemiological investigation

Results of the examination in wild boars





the results of surveillance testing based on serological, pathological or epidemiological investigation

the period during which vaccination against the disease has been prohibited and the geographical area concerned by the prohibition

- **Ban on vaccination**

As of 2001, vaccination against Aujeszky's disease is strictly forbidden at small-scale pig farms.

On 15th of June, 2006 ban on vaccination against Aujeszky's disease was introduced on the whole territory and in every stock in Hungary.

- **The whole territory of Hungary**

- (all regions)





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Condition 2: OIE – Terrestrial Animal Health Code

- OIE qualification conditions of AD free country
Chapter 8.2. Infection with Aujeszky's disease virus
 - Article 8.2.4: *AD free country or zone*
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„AD free country or zone”

1. Qualification

a) historical freedom

or

b) A country or zone which does not meet the conditions of the above paragraph may be considered free from AD when:

- i) animal health regulations to control the movement of commodities with the exception of those listed in Article 8.2.3. in order to prevent the introduction of infection into the establishments of the country or zone have been in place for at least two years
 - Animal health certificate for internal movements (MRD Regulation 87/2012 on general movement control, MAD regulation 41/1997 on animal health rules)
 - Movement registration and notification system
 - MARD regulation 113/2008 (VIII. 30.) on animal disease notification system
 - National pig identification system: MARD Regulation 116/2003. (XI. 18.) on pig identification and registration system
 - MARD Regulation 30/2009. (III. 27.) on rules of eradication of swine population of Aujeszky's disease and maintaining their free status
 - MARD Regulation 45/2012. (V.8.) on animal health rules of animal by-products destined for non-human consumption
 - MARD Regulation 61/2002. (VIII.1.) on animal health rules of reproduction and of use, import and export of reproductive materials of certain animals.
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„AD free country or zone”

- ii) vaccination against AD has been banned for all domestic and captive wild pigs in the country or zone for at least two years unless there are means, validated to OIE standards (Chapter 2.1.2. of the Terrestrial Manual), of distinguishing between vaccinated and infected pigs;
- Since 2001, vaccination against Aujeszky's disease is strictly forbidden at small-scale pig farms.
 - On 15th of June, 2006 ban on vaccination against Aujeszky's disease was introduced on the whole territory and in every stock in Hungary.
-



„AD free country or zone”

iii) if AD has never been reported in the country or zone...

or

iv) if AD has been reported in the country or zone a surveillance and control programme has been in place to detect every infected establishment and eradicate AD from it; the surveillance programme should be carried out in conformity with the recommendations in Chapter 1.4. and demonstrate that no establishments within the country or zone have had any clinical, virological or serological evidence of AD for at least two years.

- National control programme is in place
 - In 2012, 2013 and 2014: no establishments within the country had any clinical, virological or serological evidence of AD
 - Last case with clinical signs was in 2003
 - Last seropositive case was reported in 2011
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„AD free country or zone”

In countries or zones with wild and feral pigs, measures should be implemented to prevent any transmission of the AD virus from wild and feral pigs to domestic and captive wild pigs.

- Closed keeping in Hungary
 - Pig farms are appropriately separated from the wild boar population. General epidemic protection measures are as strict and effective as they were in the period of the eradication of the classical swine fever in wild boars.
 - Keeping wild boars and domestic pigs together is prohibited
 - Hunters are regularly informed on infectious diseases of pigs and on measures
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Conclusions

- The whole territory of Hungary is free from Aujeszky's disease as there has been no clinical, virological or serological evidence of the Aujeszky's disease in domestic pig population since 2012.
 - Hungary submitted the application for declaration of Aujeszky's disease free status for the whole territory of Hungary to the European Commission.
 - Final aim: to maintain disease-free status in accordance with the 2 point of Article 8.2.4 in OIE Terrestrial Animal Health Code
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Acknowledgement

Co-financing of the national control programmes for Aujeszky's disease by the European Commission.

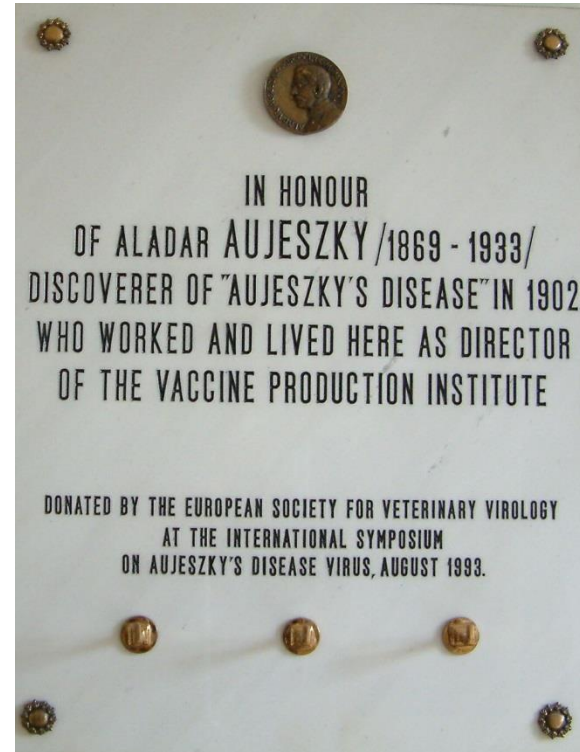


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Thank you for your attention!



Aladár Aujeszky
1869-1933



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