

# Classical swine fever – current situation, surveillance and control measures in Bulgaria

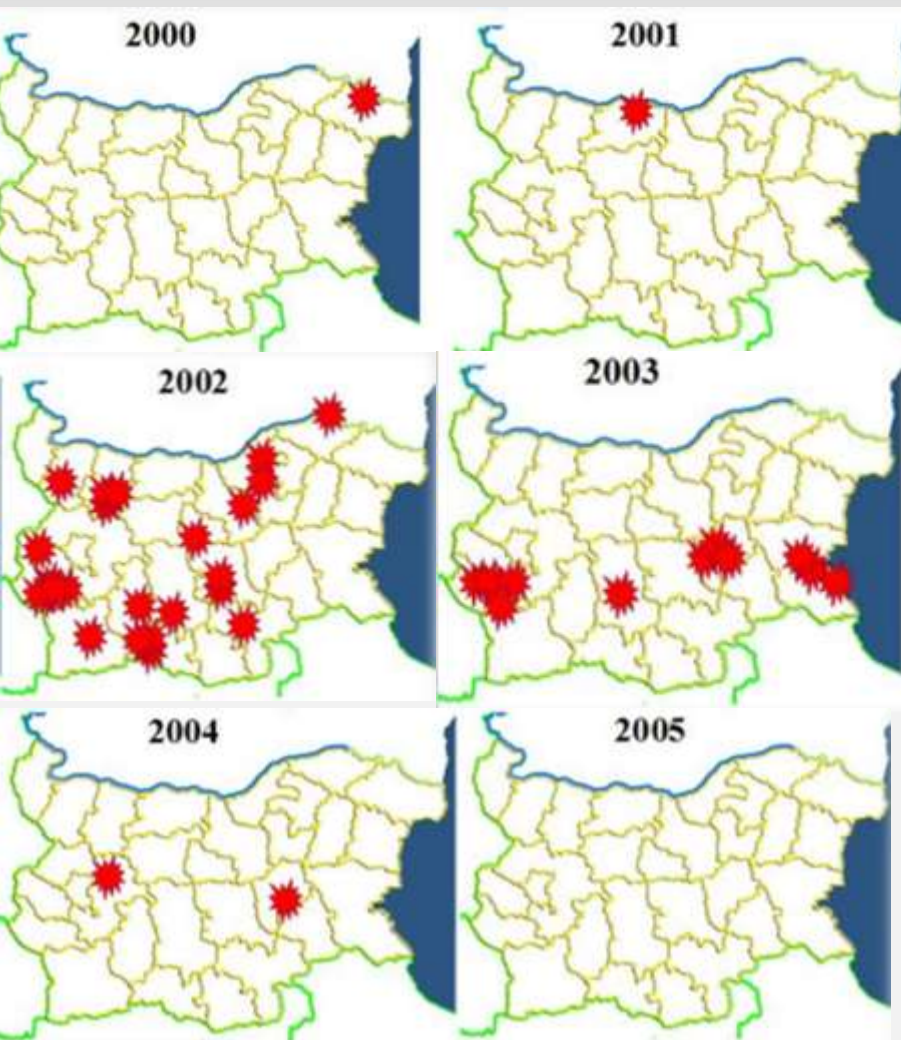


SC PAFF  
16/11/2021

# Background

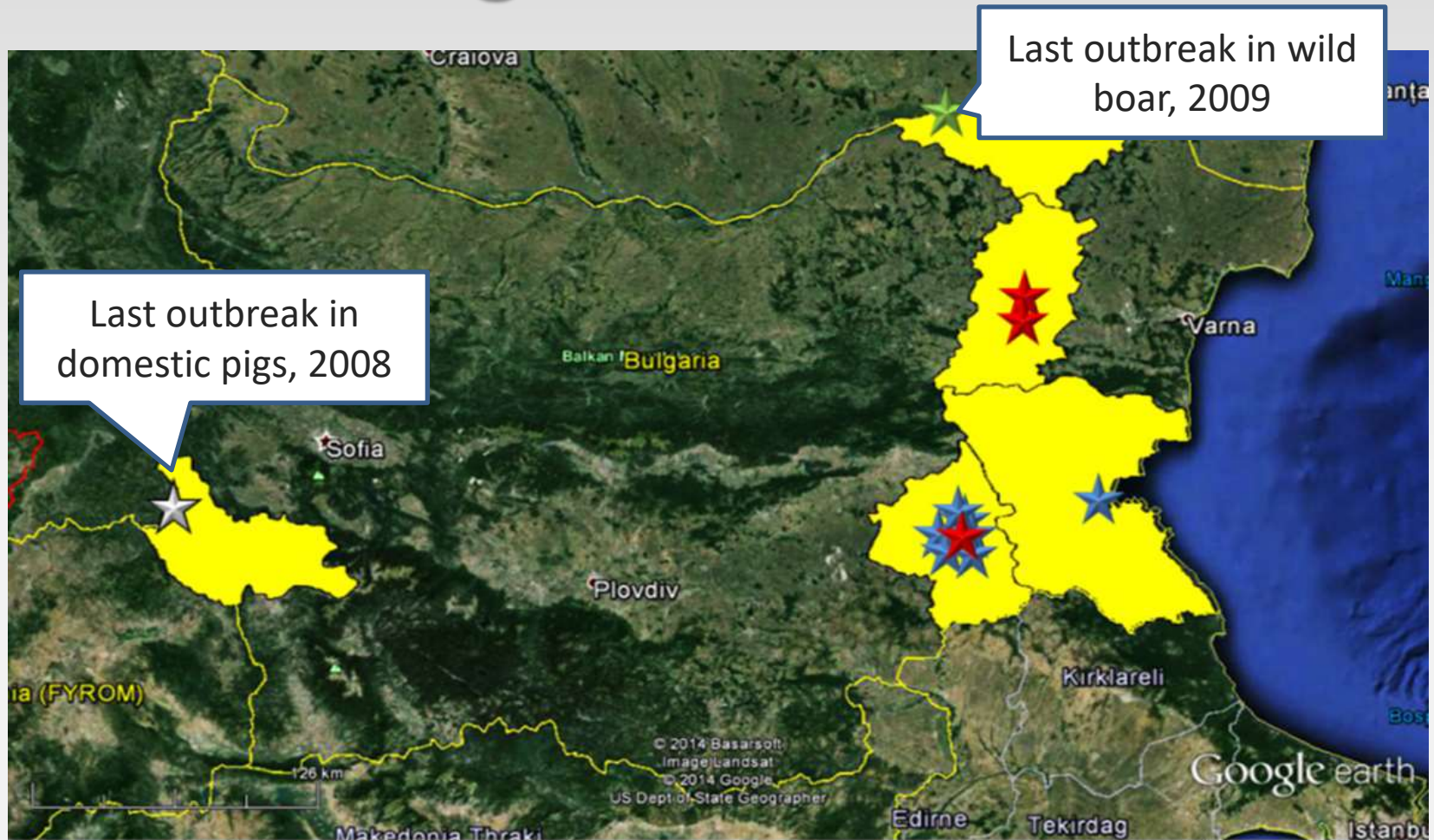
- Request of Bulgaria to be delisted from the Annex I to Implementing Regulation (EU) 2021/934 laying down special control measures for classical swine fever
- OIE CSF disease-free status achieved in 2018
- No disease occurrence since 2009
- Solid surveillance programme in place and significant changes in the controls in relation to ASF

# CSF in Bulgaria – historical data



year	Com	EBP	BY	WB cases	Significant events
	No of outbreaks				
2004	1	1	-	48	First cases in WB since 1996
2005	-	-	-	88	<ul style="list-style-type: none"> <li>Start of oral vaccination in WB</li> <li>End of vaccination in domestic pigs</li> </ul>
2006	3	-	4	-	Dec. 2006/805/EC (ban for BG)
2007	1	2	-	-	<ul style="list-style-type: none"> <li>EU accession</li> <li>New strategy for CSF</li> </ul>
2008	1	-	-	-	<ul style="list-style-type: none"> <li>Check lists for active surveillance</li> <li>FVO mission</li> <li>Dec. 2008/885/EC lifting the ban for pig products</li> <li>new vaccination strategy in WB</li> </ul>
2009	-	-	-	8	<ul style="list-style-type: none"> <li>CSF task force group</li> <li>Last cases in WB,</li> <li>Game collection centers for WB carcasses</li> </ul>
<b>2010 till Oct 2021</b>					<b>CSF free</b>

# CSF in Bulgaria – historical data



Last outbreak in wild boar, 2009

Last outbreak in domestic pigs, 2008

- ★
- ★
- ★
- ★

CSF outbreak in domestic pigs in 2006  
CSF outbreak in domestic pigs in 2007  
CSF outbreak in domestic pigs in 2008  
CSF outbreak in wild boar in 2009

# CSF control strategy in domestic pigs and previous categorization

## Categorization of farms based on bio-security level

- **Industrial farms**
- **Family farms type A** (bio-security in place)
- **Family farms type B** (poor bio-security)
- **Backyards** (poor bio-security)
- **East-Balkan pigs** (under special control program of veterinary service)

## Active surveillance

- **Clinical surveillance** to detect clinical cases of CSF as early as possible and submission of check lists data into the national database;
- **Serological and virological surveillance**

## Passive surveillance

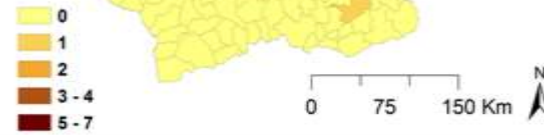
Pig farms

1



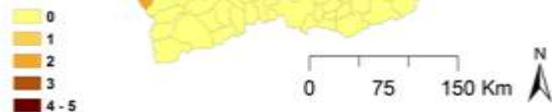
Industrial farms

2



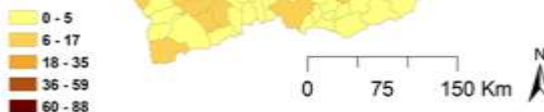
Type A farms

3



Type B farms

4



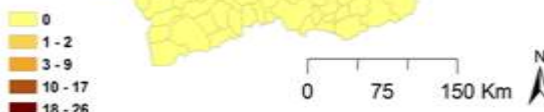
Backyards

5



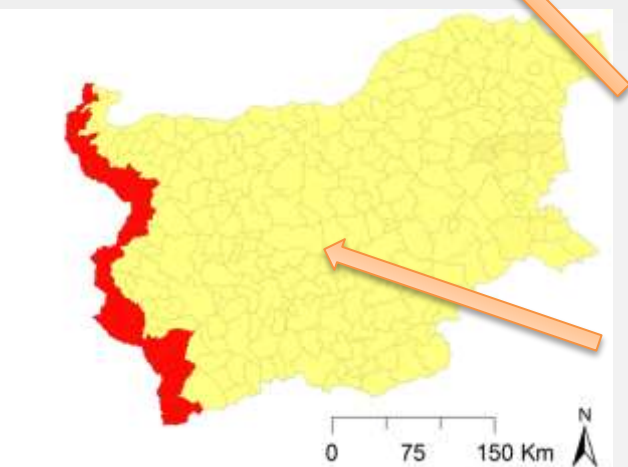
East-Balkans

6



# CSF control strategy in wild boar

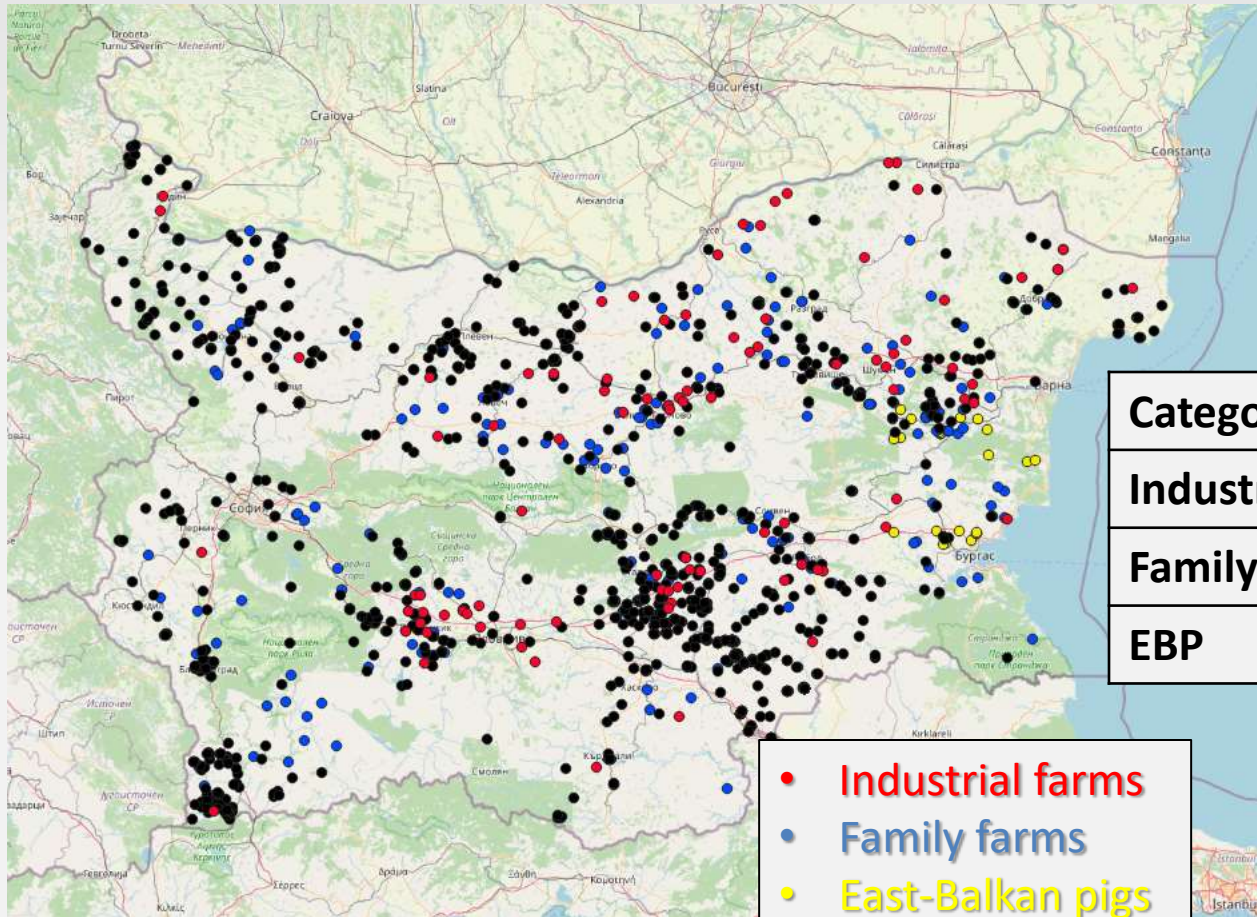
## Oral vaccination of wild boar



- ❖ **2005 – 2008** – Two vaccination campaigns with 2 bites distributions in 14 days for each per year. Only the last vaccination campaign in 2008 was carried out within 40 km zone along the west and north borders of the country
- ❖ **2009 – 2012** - Three vaccination campaigns with 2 bites distributions in 14 days within **40 km zone along the west and north borders** of the country
- ❖ **2013 – 2014** - Three vaccination campaigns with 2 bites distributions in 14 days within the **municipalities along the west and north borders** of the country
- ❖ **2015** - Three vaccination campaigns with 2 bites distributions in 14 days within the **municipalities along the west borders** of the country. Last year of vaccination

Region	Month	No. of baits distributed	Bait uptake	Size of vaccination area (sq. km)
Blagoevgrad	Apr; Sept-Oct; Nov-Dec	11540	11540	2174,6
Vidin	Apr; Sept-Oct; Nov-Dec	4037	3838	3000
Kyustendil	Apr; Sept-Oct; Nov-Dec	12340	12340	1912,45
Montana	Apr; Sept-Oct; Nov-Dec	7540	7540	1803,576
Pernik	Apr; Sept-Oct; Nov-Dec	8000	8000	450
Sofia-district	Apr; Sept-Oct; Nov-Dec	7240	7240	703
<b>Total</b>		<b>50697</b>	<b>50498</b>	<b>10043,626</b>

# Pig sector in Bulgaria – current state

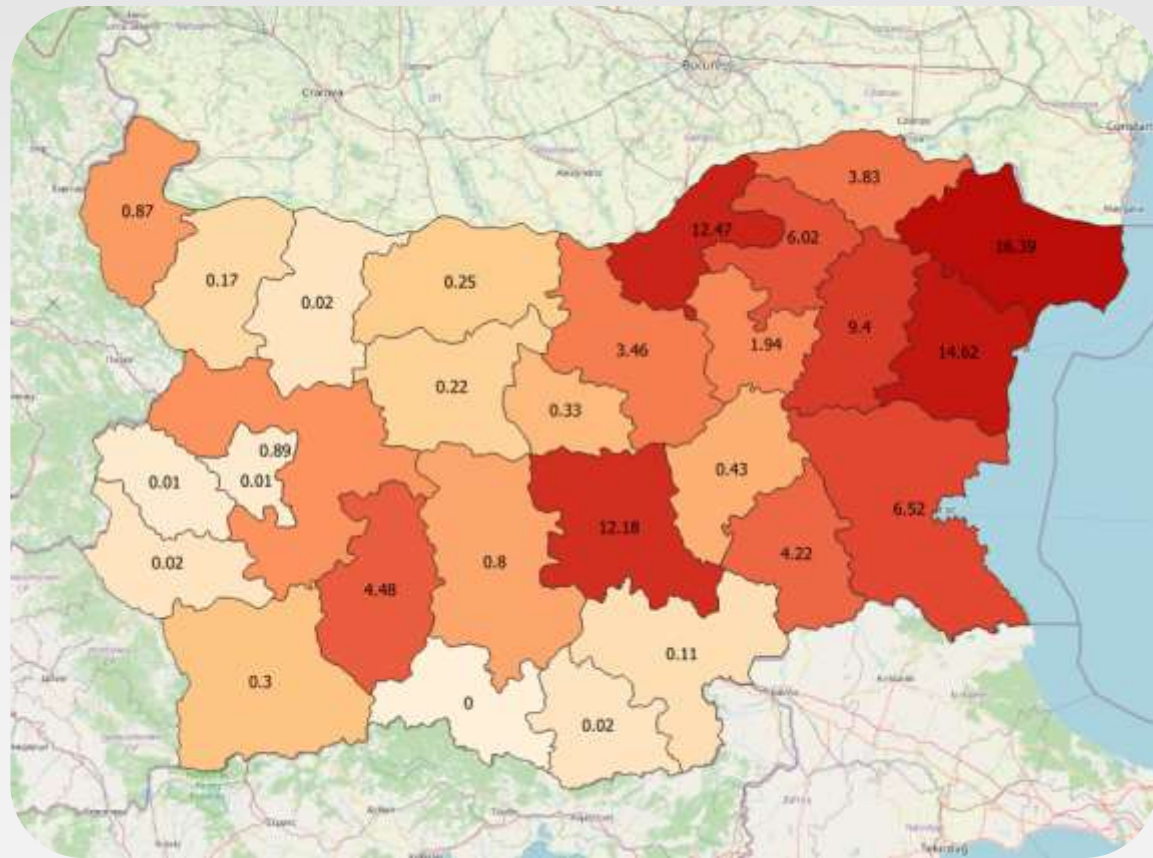


Category	No. of farms	Trend
Industrial	97 (90)	↑
Family	206 (160)	↓
EBP	29 (16)	↓

- Industrial farms
- Family farms
- East-Balkan pigs
- Backyards

# Pig sector in Bulgaria – current state

Region	No. of pigs	% of population
Blagoevgrad	1864	0.30%
Burgas	40654	6.52%
Varna	91206	14.62%
Veliko Tarnovo	21599	3.46%
Vidin	5449	0.87%
Vratza	96	0.02%
Gabrovo	2089	0.33%
Dobrich	102222	16.39%
Kardzhali	131	0.02%
Kyustendil	137	0.02%
Lovech	1365	0.22%
Montana	1086	0.17%
Pazardzhik	27957	4.48%
Pernik	80	0.01%
Pleven	1553	0.25%
Plovdiv	4970	0.80%
Razgrad	37538	6.02%
Ruse	77793	12.47%
Silistra	23869	3.83%
Sliven	2687	0.43%
Smolyan	17	0.00%
Sofia-district	5576	0.89%
Sofia-city	34	0.01%
Stara Zagora	75983	12.18%
Targovishte	12103	1.94%
Haskovo	717	0.11%
Shumen	58620	9.40%
Yambol	26296	4.22%
<b>Grand Total</b>	<b>623691</b>	





# Registration requirements

New categorization in Ordinance 44 on veterinary requirements for animal holdings (as of 2020):

- **Industrial**
- **Family farms  
(up to 10 sows/200 pigs in total)**
- **Backyards  
(not more than 3 pigs, no sows/boar)**
- **EBPs**

*Previous categorization:*

Industrial

Type A

Type B

Backyards

EBPs

ΦΑΜΙΛΙΑΚΗ ΦΕΡΜΑ

< 10 mother sows

FAMILY FARM

ΙΝΔΥΣΤΡΙΑΛΙΑΝΑ ΦΕΡΜΑ

> 10 mother sows

INDUSTRIAL FARM

EAST BAY

# Biosecurity requirements

Set out in Ordinance 44 on veterinary requirements for animal holdings (as of 2020):

## Industrial

- No registration of new industrial or family farms in 10K
- Dirty and clean zone
- Double fences/single concrete fence
- Distance from crops/woods, etc.
- Separate biosec upon entry in each premise
- Mesh on ventilators/windows
- Individual CP and Biosec plans

## Family

- No registration of new industrial or family farms in 10K
- Double fences/single concrete fence
- Distance from crops/woods, etc.
- Separate biosec upon entry in each premise
- Individual CP and Biosec plans

## EBP

- Separate Ordinance for the breed
- Currently are kept fenced

## Backyards

- Building preventing contact with WB/rodents
- Biosec upon entry
- Storage of feed/manure
- Cleaning and disinfection of premises and equipment

# The backyard sector

Region	Backyards registered, n
Blagoevgrad	641
Burgas	118
Varna	209
Veliko Tarnovo	271
Vidin	501
Vratsa	260
Gabrovo	130
Dobrich	526
Kardzhali	5
Kyustendil	301
Lovech	139
Montana	468
Pazardzhik	74
Pernik	385
Pleven	519
Plovdiv	125
Razgrad	47
Ruse	37
Silistra	491
Sliven	175
Smolyan	19
Sofia-district	263
Sofia-city	30
Stara Zagora	304
Targovishte	41
Haskovo	294
Shumen	223
Yambol	263
<b>Grand Total</b>	<b>6859</b>



- all backyard pigs were culled in 2019
- slow repopulation according to action plan
- audit system to control that the action plan is properly enforced

*Each registration and population of the holdings is preceded by official checks (two-phased procedure): 1. on holding registration, 2. on holding population*

# Action plan for backyard holdings in Bulgaria

Specific objective	Specific action	Timeframe
1 Ensuring all backyard holdings are registered and recorded in the BFSa system and comply with the biosecurity rules.	registration and population procedure	Short term/continuous/ongoing
	pig holdings inventory three times per year	Short-term/continuous
	checks on backyards depopulated in 2019 which have not resumed activity	Mid-term/continuous
2 Providing enhanced surveillance on the health status of the backyard pigs	clinical examinations/biosecurity checks by registered veterinarians four times per year and submission of the results/finding of the examinations/checks in a dedicated application	Long-term/continuous
	biosecurity checks by official veterinarian once per year	Long-term/continuous
3 Ensuring better control on the pig movement and prevention from illegal practices	targeted controls on the pig movements through the VetIS system	Short-term/ongoing/continuous
	Cooperation with the Ministry of Internal Affairs for illegal movements of pigs	Short-term/continuous
	monthly checks for online illegal trade with pigs	Short-term/continuous
4 Providing awareness on ASF and biosecurity for the backyard owners	awareness materials to backyard pig owners	Short-term/continuous

# New measures enforced in the beginning of 2020 - recap

## Legislative:

- Amendment of the Law on Veterinary Activities
- ✓ easier registration
- ✓ better veterinary supervision (by private vets) in smaller holdings
- ✓ strengthening the local cooperation with institutions
- ✓ new compensation rules
- Amendment of the Ordinance on the requirements for animal holdings
- ✓ strengthening the biosecurity requirements
- ✓ Individual biosecurity plans for holdings
- ✓ Individual CP for holdings
- Amendment of the Ordinance on expenditure related to epizootic risks

**Deduction/refusal of compensations when biosec/IDR/AH requirements are not observed**

## Operational:

- National standstill in the beginning of 2020, gradually lifted over time
- New SOPs for repopulation of holdings and on official controls in holdings
- Follow-up checks in depopulated backyards
- Registration of backyards in accordance with the new legislation
- Intensified search parties for WB around industrial farms



**More than 5000**

# Current surveillance regimen – domestic pigs

Approved in National programme for the animal diseases and zoonoses for 2019-2021:

Type of holding	Type of surveillance
Industrial	<ul style="list-style-type: none"><li>- Clinical examinations on each consignment by RV</li><li>- Clinical examinations with frequency pending on the type of zone the holding is in by OV</li><li>- Sampling for serological surveillance every 4 month (3 times per year) -&gt; 95/10<ul style="list-style-type: none"><li>-&gt; 95/5 for sows</li><li>-&gt; each boar</li></ul></li><li>- Virological sampling upon suspicion</li></ul>
Family farms	<ul style="list-style-type: none"><li>- Clinical examinations on each consignment by RV</li><li>- Clinical examinations with frequency pending on the type of zone the holding is in by OV</li><li>- Sampling for serological surveillance once e year -&gt; 95/20<ul style="list-style-type: none"><li>-&gt; 95/5 for sows</li><li>-&gt; each boar</li></ul></li><li>- Virological sampling upon suspicion</li></ul>
East-Balkan pigs	<ul style="list-style-type: none"><li>- Clinical examinations on each consignment by OV</li><li>- Clinical examinations every 3 months (4 times per year) – both by OV and RV</li><li>- Sampling for serological surveillance once e year -&gt; 95/10<ul style="list-style-type: none"><li>-&gt; each slaughtered pig</li></ul></li><li>- Virological sampling upon suspicion</li></ul>
Backyards	<ul style="list-style-type: none"><li>- Sampling upon suspicion</li></ul>

# Implementation of surveillance – domestic pigs

2019

2020

2021

Region 2019	No. of serologically tested pigs	No. of positives	No. of virologically tested pigs	No. of positives	Region 2020	No. of serologically tested pigs	No. of positives	No. of virologically tested pigs	No. of positives	Region 2021	No. of serologically tested pigs	No. of positives	No. of virologically tested pigs	No. of positives
Blagoevgrad	198	0	0	0	Blagoevgrad	201	0	120	0	Blagoevgrad	215	0	120	0
Burgas	172	0	0	0	Burgas	72	0	48	0	Burgas	10	0	48	0
Varna	1061	0	0	0	Varna	848	0	506	0	Varna	749	0	478	0
Veliko Tarnovo	160	0	0	0	Veliko Tarnovo	319	0	106	0	Veliko Tarnovo	272	0	106	0
Vidin	131	0	7	0	Vidin	58	0	46	0	Vidin	58	0	46	0
Vratsa	0	0	0	0	Vratsa	56	0	73	0	Vratsa	0	0	73	0
Gabrovo	0	0	0	0	Gabrovo	16	0	0	0	Gabrovo	0	0	0	0
Dobrich	213	0	0	0	Dobrich	129	0	569	0	Dobrich	489	0	569	0
Kardzhali	0	0	0	0	Kardzhali	0	0	15	0	Kardzhali	0	0	15	0
Kyustendil	10	0	0	0	Kyustendil	59	0	0	0	Kyustendil	19	0	5	0
Lovech	176	0	0	0	Lovech	293	0	48	0	Lovech	178	0	48	0
Montana	0	0	0	0	Montana	0	0	8	0	Montana	0	0	10	0
Pazardzhik	479	0	0	0	Pazardzhik	740	0	186	0	Pazardzhik	681	0	186	0
Pernik	0	0	0	0	Pernik	0	0	0	0	Pernik	0	0	0	0
Pleven	170	0	1	0	Pleven	112	0	115	0	Pleven	100	0	115	0
Plovdiv	132	0	0	0	Plovdiv	156	0	150	0	Plovdiv	14	0	150	0
Razgrad	87	0	0	0	Razgrad	210	0	317	0	Razgrad	36	0	317	0
Ruse	278	0	0	0	Ruse	288	0	253	0	Ruse	317	0	253	0
Silistra	78	0	0	0	Silistra	128	0	66	0	Silistra	144	0	66	0
Sliven	14	0	0	0	Sliven	343	0	110	0	Sliven	347	0	110	0
Smolyan	0	0	0	0	Smolyan	0	0	0	0	Smolyan	0	0	0	0
Sofia-city	0	0	0	0	Sofia-city	0	0	6	0	Sofia-city	0	0	6	0
Sofia-district	30	0	0	0	Sofia-district	35	0	188	0	Sofia-district	0	0	188	0
Stara Zagora	146	0	0	0	Stara Zagora	530	0	221	0	Stara Zagora	255	0	221	0
Targovishte	69	0	0	0	Targovishte	231	0	42	0	Targovishte	0	0	42	0
Haskovo	0	0	0	0	Haskovo	99	0	13	0	Haskovo	18	0	13	0
Shumen	672	0	0	0	Shumen	680	0	226	0	Shumen	345	0	226	0
Yambol	420	0	0	0	Yambol	1452	0	148	0	Yambol	641	0	148	0
<b>Total</b>	<b>4696</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>Total</b>	<b>7055</b>	<b>0</b>	<b>3580</b>	<b>0</b>	<b>Total</b>	<b>4888</b>	<b>0</b>	<b>3559</b>	<b>0</b>

# Implementation of surveillance – domestic pigs

**2019**

Region	Farm category	Serology
Blagoevgrad	Industrial	0
	type A*	198
Burgas	Industrial	42
	type A	130
	east-balkan pigs	0
Varna	Industrial	56
	type A	391
	east-balkan pigs	614
Veliko Tarnovo	Industrial	98
	type A	62
Vidin	Industrial	28
	type A	103
Vratsa	Industrial	0
	type A	0
Gabrovo	Industrial	0
	type A	0
Dobrich	Industrial	98
	type A	115
Kardzhali	Industrial	0
	type A	0
Kyustendil	Industrial	0
	type A	10
Lovech	Industrial	56
	type A	120
Montana	Industrial	0
	type A	0
Pazardzhik	Industrial	70
	type A	409
Pernik	Industrial	0
	type A	0

Region	Farm category	Serology
Pleven	Industrial	28
	type A	142
Plovdiv	Industrial	14
	type A	118
Razgrad	Industrial	14
	type A	73
Ruse	Industrial	98
	type A	180
Silistra	Industrial	28
	type A	50
Sliven	Industrial	14
	type A	0
Smolyan	Industrial	0
	type A	0
Sofia city	Industrial	0
	type A	0
Sofia region	Industrial	30
	type A	0
Stara Zagora	Industrial	70
	type A	76
Targovishte	Industrial	39
	type A	30
Haskovo	Industrial	0
	type A	0
Shumen	Industrial	98
	type A	273
	east-balkan pigs	301
Yambol	Industrial	84
	type A	336
<b>Total:</b>		4696

\*under the previous holding categorization



# Implementation of surveillance – domestic pigs

2020

Region	Farm category	Serology	Virology	Backyards/Pre-categorized holdings	Suspicious
<b>Blagoevgrad</b>	Industrial	94	99	21	
	Family	107			
<b>Burgas</b>	Industrial	72	42	6	2
	Family				
	EBP				
<b>Varna</b>	Industrial	159	475	31	2
	Family	318			
	EBP	371			
<b>Veliko Tarnovo</b>	Industrial	235	91	15	1
	Family	84			
<b>Vidin</b>	Industrial	58	15	10	
	Family	21			
<b>Vratsa</b>	Industrial	56	73		
	Family				
<b>Gabrovo</b>	Industrial	16		8	4
	Family				
<b>Dobrich</b>	Industrial	114	563	6	
	Family	15			
<b>Kardzhali</b>	Industrial			15	
	Family				
<b>Kyustendil</b>	Industrial			7	
	Family	59			
<b>Lovech</b>	Industrial	236	43	5	
	Family	57			
<b>Montana</b>	Industrial			6	2
	Family				
<b>Pazardzhik</b>	Industrial	600	171	15	
	Family	140			
<b>Pernik</b>	Industrial				
	Family		10		

Region	Farm category	Serology	Virology	Backyards/Pre-categorized holdings	Suspicious
<b>Pleven</b>	Industrial	93	110	5	
	Family	19			
<b>Plovdiv</b>	Industrial	126	145	5	3
	Family	30			
<b>Razgrad</b>	Industrial	101	315	2	
	Family	109			
<b>Ruse</b>	Industrial	256	252	1	
	Family	32			
<b>Silistra</b>	Industrial	128	66		
	Family				
<b>Sliven</b>	Industrial	188	110		
	Family	155			
<b>Smolyan</b>	Industrial				
	Family				
<b>Sofia-city</b>	Industrial			6	
	Family				
<b>Sofia-district</b>	Industrial	35	174	6	
	Family				
<b>Stara Zagora</b>	Industrial	459	220	1	
	Family	71			
<b>Targovishte</b>	Industrial	191	39	3	
	Family	40			
<b>Haskovo</b>	Industrial	59	13	7	
	Family	40			
<b>Shumen</b>	Industrial	484	200	2	
	Family	134			
	EBP	62			
<b>Yambol</b>	Industrial	1229	139	9	
	Family	223			
<b>Total</b>		7076	3386	173	12

# Implementation of surveillance – domestic pigs

**2021**

Region	Farm category	Serology	Virology	Backyards/uncategorized	Suspicious
<b>Blagoevgrad</b>	Industrial	59	108	12	
	Family	156			
<b>Burgas</b>	Industrial		47	1	
	Family	10			
	EBP				
<b>Varna</b>	Industrial	443	461	17	
	Family	123			
	EBP	183			
<b>Veliko Tarnovo</b>	Industrial	162	106		
	Family	110			
<b>Vidin</b>	Industrial	58	33	13	
	Family				
<b>Vratsa</b>	Industrial		73		
	Family				
<b>Gabrovo</b>	Industrial				
	Family				
<b>Dobrich</b>	Industrial	322	569		
	Family	167			
<b>Kardzhali</b>	Industrial			15	
	Family				
<b>Kyustendil</b>	Industrial			2	
	Family	19	3		
<b>Lovech</b>	Industrial	118	45	3	
	Family	60			
<b>Montana</b>	Industrial			4	
	Family		6		
<b>Pazardzhik</b>	Industrial	539	168	18	
	Family	142			
<b>Pernik</b>	Industrial			7	
	Family				

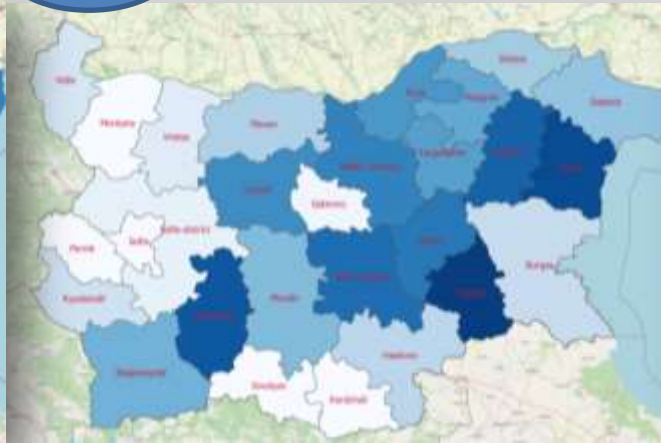
Region	Farm category	Serology	Virology	Backyards/uncategorized	Suspicious
<b>Pleven</b>	Industrial	87	102	6	
	Family	13			
<b>Plovdiv</b>	Industrial		142	8	2
	Family	14			
<b>Razgrad</b>	Industrial	29	317		
	Family	14			
<b>Ruse</b>	Industrial	278	253		
	Family	32			
<b>Silistra</b>	Industrial	144	66		
	Family				
<b>Sliven</b>	Industrial	180	110		
	Family	167			
<b>Smolyan</b>	Industrial				
	Family				
<b>Sofia-city</b>	Industrial			6	
	Family				
<b>Sofia-district</b>	Industrial		184	4	
	Family				
<b>Stara Zagora</b>	Industrial	155	221		
	Family	100			
<b>Targovishte</b>	Industrial		42		
	Family				
<b>Haskovo</b>	Industrial		5	8	
	Family	18			
<b>Shumen</b>	Industrial	219		7	
	Family	73	219		
	EBP	53			
<b>Yambol</b>	Industrial	590	141	7	
	Family	51			
<b>Total</b>		4888	3436	123	

# Implementation of surveillance – domestic pigs

2019



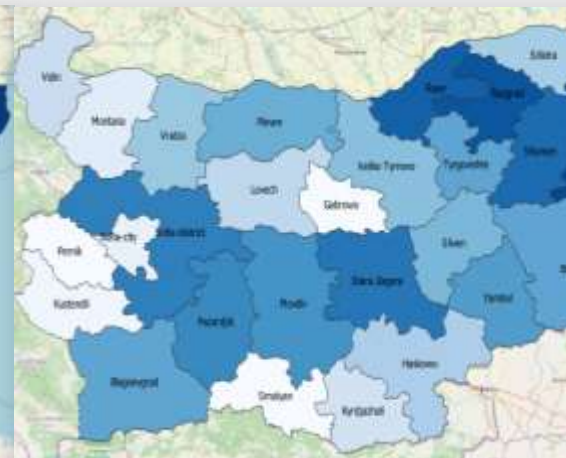
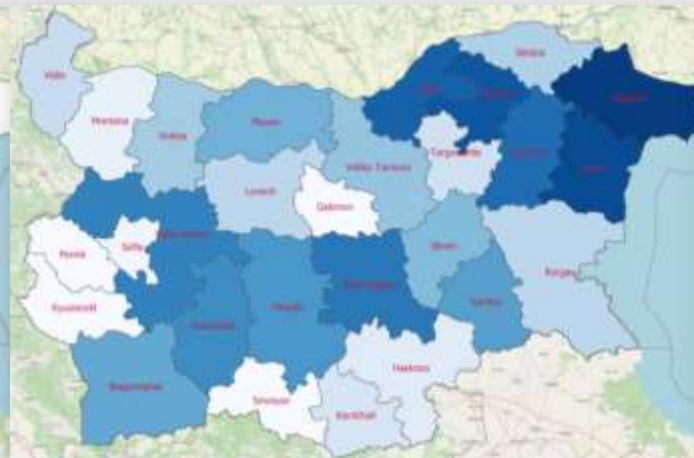
2020



2021



Virology



# Implementation of controls – domestic pigs 2021

Official controls in commercial farms

643 by Oct  
- 2,57 visits on average  
- 3,76 in industrial farms  
- 1,9 in family farms

Clinical examinations by RVs

More than 7000 by Oct (data in 2020 – 19492 – 116% implementation )

Official controls on animal markets

Ban on pig markets  
123 checks for illegal trading on markets/119 for online trade

Official checks for free-range keeping of pigs

Ban on free-ranging  
43 checks

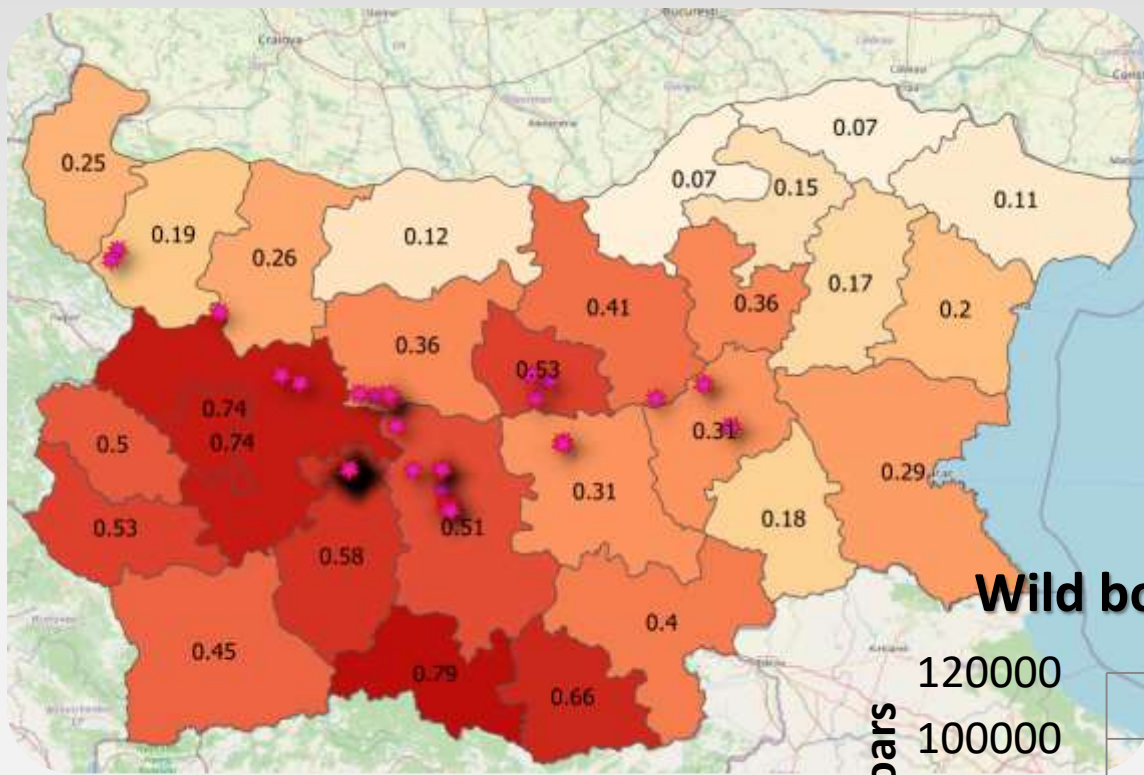
Official checks in backyards

2757 checks /409 in non-registered farms

# Pre-movement controls

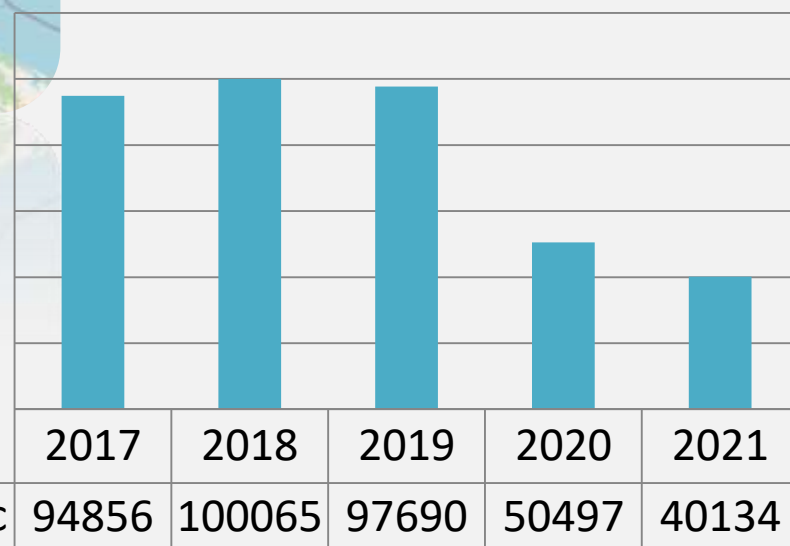
- Notification of the movement at least 24 before – to RFSD of origin and of destination  
-> options a consignment to be rejected further to the official controls
- Clinical examinations before the movement
- Requirements on the health status of the holding and the frequency of the controls
- Cleansing and disinfection of vehicles

# Wild boar population in Bulgaria



Wild boar population, 2017-2021

No. of wild boars



■ запас	94856	100065	97690	50497	40134
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# Surveillance approach – wild boar



- Division of the territory of the county into zones
- Sample size 59 shot WB/per zone
- Sampling of each WB found dead

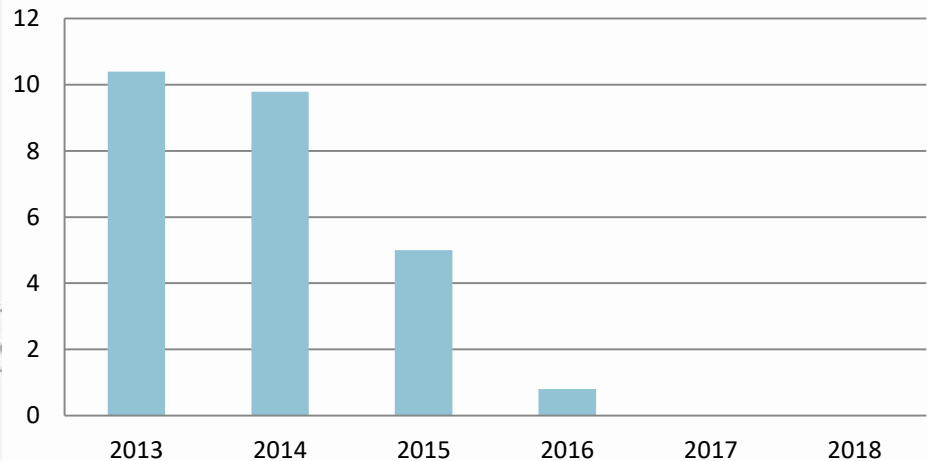


# Data on seroconversion following vaccination activities

year	2010				2011				2012				2013				2014				2015			
Serological surveillance																								
Age of wild boar in months	Vaccination area		Non-vaccination area		Vaccination area		Non-vaccination area		Vaccination area		Non-vaccination area		Vaccination area		Non-vaccination area		Vaccination area		Non-vaccination area		Vaccination area		Non-vaccination area	
	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*	Serologically tested	% seropositive*		
0 - 12	527	19.9	1567	0.2	331	16	1186	0.08	603	19.4	1254	0.08	529	12.8	1268	0	611	11,62	577	0	466	11.16	1261	0
12 - 24	437	34.6	1182	0.2	401	41	867	0.1	568	37.3	1081	1.1	364	41.8	922	0	578	50,74	532	0	303	26.73	745	0
> 24	346	23.4	1144	0.3	418	43	1507	0.53	611	54.3	1805	0.6	402	53.5	1537	0	627	63,31	904	0	175	39.43	1071	0
Total № of WB tested	1310		3893		1156		3560		1782		4140		1295		3727		1816		2013		944		3077	
	5203				4716				5922				5022				3829				4021			



## Seroconversion in WB 2013-2018, %





# Implementation of the CSF surveillance – wild boar

2015

Region	Species	Method	No. of samples	No. of tests	No. of positives*	Method	No. of sampled	No. of tests	No. of positives
Blagoevgrad	wild boar	ELISA	61	61	3	PCR	66	17	0
Burgas	wild boar	ELISA	469	469	0	PCR	471	72	0
Varna	wild boar	ELISA	49	49	0	PCR	49	12	0
Veliko Tarnovo	wild boar	ELISA	189	189	0	PCR	189	23	0
Vidin	wild boar	ELISA	146	146	46	PCR	147	18	0
Vratsa	wild boar	ELISA	67	67	0	PCR	67	15	0
Gabrovo	wild boar	ELISA	37	37	0	PCR	78	8	0
Dobrich	wild boar	ELISA	137	137	4	PCR	139	17	0
Kardzhali	wild boar	ELISA	66	66	0	PCR	80	14	0
Kyustendil	wild boar	ELISA	88	88	19	PCR	89	18	0
Lovech	wild boar	ELISA	154	154	0	PCR	173	26	0
Montana	wild boar	ELISA	179	179	29	PCR	179	25	0
Pazardzhik	wild boar	ELISA	65	65	0	PCR	65	18	0
Pernik	wild boar	ELISA	99	99	8	PCR	99	16	0
Pleven	wild boar	ELISA	109	109	7	PCR	112	25	0
Plovdiv	wild boar	ELISA	181	181	0	PCR	181	40	0
Razgrad	wild boar	ELISA	148	148	0	PCR	157	21	0
Ruse	wild boar	ELISA	35	35	2	PCR	35	8	0
Silistra	wild boar	ELISA	393	393	84	PCR	393	58	0
Sliven	wild boar	ELISA	81	81	0	PCR	84	18	0
Smolyan	wild boar	ELISA	160	160	0	PCR	160	26	0
Sofia-city	wild boar	ELISA	0	0	0	PCR	0	0	0
Sofia-district	wild boar	ELISA	276	276	0	PCR	277	47	0
Stara Zagora	wild boar	ELISA	166	166	0	PCR	166	24	0
Targovishte	wild boar	ELISA	33	33	0	PCR	38	13	0
Haskovo	wild boar	ELISA	91	91	0	PCR	92	23	0
Shumen	wild boar	ELISA	318	318	0	PCR	318	42	0
Yambol	wild boar	ELISA	224	224	0	PCR	224	37	0
Total	wild boar	ELISA	4021	4021	202	PCR	4128	681	0

\*positive animals are from zones being previously vaccinated (2014)

# Implementation of the CSF surveillance – wild boar

2016

Region	Species	Method	No. of samples	No. of tests	No. of positives*	Method	No. of sampled	No. of tests	No. of positives
Blagoevgrad	wild boar	ELISA	110	110	0	PCR	129	19	0
Burgas	wild boar	ELISA	438	438	0	PCR	442	57	0
Varna	wild boar	ELISA	111	111	5	PCR	110	22	0
Veliko Tarnovo	wild boar	ELISA	236	236	0	PCR	237	31	0
Vidin	wild boar	ELISA	153	153	0	PCR	153	21	0
Vratsa	wild boar	ELISA	82	82	0	PCR	83	19	0
Gabrovo	wild boar	ELISA	169	169	0	PCR	222	30	0
Dobrich	wild boar	ELISA	44	44	0	PCR	44	11	0
Kardzhali	wild boar	ELISA	129	129	0	PCR	153	23	0
Kyustendil	wild boar	ELISA	29	29	1	PCR	33	11	0
Lovech	wild boar	ELISA	208	208	0	PCR	235	35	0
Montana	wild boar	ELISA	182	182	0	PCR	182	23	0
Pazardzhik	wild boar	ELISA	75	75	0	PCR	76	21	0
Pernik	wild boar	ELISA	83	83	32	PCR	83	14	0
Pleven	wild boar	ELISA	97	97	0	PCR	97	13	0
Plovdiv	wild boar	ELISA	334	334	0	PCR	335	58	0
Razgrad	wild boar	ELISA	228	228	0	PCR	231	32	0
Ruse	wild boar	ELISA	197	197	1	PCR	199	29	0
Silistra	wild boar	ELISA	542	542	10	PCR	542	95	0
Sliven	wild boar	ELISA	206	206	0	PCR	218	35	0
Smolyan	wild boar	ELISA	327	327	0	PCR	329	51	0
Sofia-city	wild boar	ELISA	31	31	0	PCR	31	4	0
Sofia-district	wild boar	ELISA	470	470	0	PCR	482	75	0
Stara Zagora	wild boar	ELISA	205	205	0	PCR	205	30	0
Targovishte	wild boar	ELISA	98	98	0	PCR	102	21	0
Haskovo	wild boar	ELISA	186	186	0	PCR	186	41	0
Shumen	wild boar	ELISA	757	757	0	PCR	757	128	0
Yambol	wild boar	ELISA	213	213	0	PCR	218	35	0
Total	wild boar	ELISA	5940	5940	49	PCR	6114	984	0

\*positive animals are from zones being previously vaccinated (2015)

# Implementation of the CSF surveillance – wild boar

2017

Region	Species	Method	No. of sampled	No. of tests	No. of positives	Method	No. of sampled	No. of tests	No. of positives
Blagoevgrad	wild boar	ELISA	27	27	0	PCR	12	3	0
Burgas	wild boar	ELISA	238	238	0	PCR	20	2	0
Varna	wild boar	ELISA	80	80	0	PCR	5	5	0
Veliko Tarnovo	wild boar	ELISA	145	145	0	PCR	41	5	0
Vidin	wild boar	ELISA	161	161	0	PCR	11	2	0
Vratsa	wild boar	ELISA	34	34	0	PCR	5	2	0
Gabrovo	wild boar	ELISA	308	308	0	PCR	9	2	0
Dobrich	wild boar	ELISA	108	108	0	PCR	50	6	0
Kardzhali	wild boar	ELISA	95	95	0	PCR	0	0	0
Kyustendil	wild boar	ELISA	87	87	0	PCR	6	2	0
Lovech	wild boar	ELISA	163	163	0	PCR	5	1	0
Montana	wild boar	ELISA	116	116	0	PCR	0	0	0
Pazardzhik	wild boar	ELISA	108	108	0	PCR	62	11	0
Pernik	wild boar	ELISA	85	85	0	PCR	84	9	0
Pleven	wild boar	ELISA	86	86	0	PCR	15	2	0
Plovdiv	wild boar	ELISA	223	223	0	PCR	81	11	0
Razgrad	wild boar	ELISA	236	236	0	PCR	42	6	0
Ruse	wild boar	ELISA	56	56	0	PCR	30	5	0
Silistra	wild boar	ELISA	498	498	0	PCR	181	27	0
Sliven	wild boar	ELISA	85	85	0	PCR	19	2	0
Smolyan	wild boar	ELISA	188	188	0	PCR	43	5	0
Sofia-city	wild boar	ELISA	74	74	0	PCR	1	1	0
Sofia-district	wild boar	ELISA	390	390	0	PCR	79	10	0
Stara Zagora	wild boar	ELISA	91	91	0	PCR	8	1	0
Targovishte	wild boar	ELISA	66	66	0	PCR	44	8	0
Haskovo	wild boar	ELISA	149	149	0	PCR	14	3	0
Shumen	wild boar	ELISA	559	559	0	PCR	66	12	0
Yambol	wild boar	ELISA	231	231	0	PCR	3	1	0
Total	wild boar	ELISA	4687	4687	0	PCR	936	144	0

# Implementation of the CSF surveillance – wild boar

2018

Region	Species	Method	No. of sampled	No. of tests	No. of positives	Method	No. of sampled	No. of tests	No. of positives
Blagoevgrad	wild boar	ELISA	28	28	0	PCR	0	0	0
Burgas	wild boar	ELISA	120	120	0	PCR	12	12	0
Varna	wild boar	ELISA	141	141	0	PCR	14	14	0
Veliko Tarnovo	wild boar	ELISA	145	145	0	PCR	0	0	0
Vidin	wild boar	ELISA	45	45	0	PCR	0	0	0
Vratsa	wild boar	ELISA	46	46	0	PCR	0	0	0
Gabrovo	wild boar	ELISA	161	161	0	PCR	6	6	0
Dobrich	wild boar	ELISA	262	262	0	PCR	55	11	0
Kardzhali	wild boar	ELISA	71	71	0	PCR	0	0	0
Kyustendil	wild boar	ELISA	147	147	0	PCR	0	0	0
Lovech	wild boar	ELISA	31	31	0	PCR	0	0	0
Montana	wild boar	ELISA	122	122	0	PCR	4	4	0
Pazardzhik	wild boar	ELISA	53	53	0	PCR	3	3	0
Pernik	wild boar	ELISA	30	30	0	PCR	0	0	0
Pleven	wild boar	ELISA	34	34	0	PCR	3	3	0
Plovdiv	wild boar	ELISA	142	142	0	PCR	3	3	0
Razgrad	wild boar	ELISA	262	262	0	PCR	13	5	0
Ruse	wild boar	ELISA	30	30	0	PCR	2	2	0
Silistra	wild boar	ELISA	561	561	0	PCR	45	9	0
Sliven	wild boar	ELISA	83	83	0	PCR	0	0	0
Smolyan	wild boar	ELISA	175	175	0	PCR	4	4	0
Sofia-city	wild boar	ELISA	59	59	0	PCR	1	1	0
Sofia-district	wild boar	ELISA	393	393	0	PCR	4	4	0
Stara Zagora	wild boar	ELISA	85	85	0	PCR	0	0	0
Targovishte	wild boar	ELISA	202	202	0	PCR	4	4	0
Haskovo	wild boar	ELISA	101	101	0	PCR	1	1	0
Shumen	wild boar	ELISA	724	724	0	PCR	45	9	0
Yambol	wild boar	ELISA	125	125	0	PCR	1	1	0
Total	wild boar	ELISA	4378	4378	0	PCR	220	96	0

# Implementation of the CSF surveillance – wild boar

2020

Region	No. of serologically tested WB	No. of positives	No. of virologically tested WB	No. of positives
Blagoevgrad	0	0	175	0
Burgas	315	0	0	0
Varna	109	0	0	0
Veliko Tarnovo	320	0	0	0
Vidin	0	0	48	0
Vratza	0	0	58	0
Gabrovo	262	0	0	0
Dobrich	93	0	0	0
Kardzhali	1150	0	0	0
Kyustendil	0	0	140	0
Lovech	0	0	74	0
Montana	0	0	47	0
Pazardzhik	718	0	1	0
Pernik	0	0	123	0
Pleven	0	0	11	0
Plovdiv	745	0	0	0
Razgrad	65	0	0	0
Ruse	95	0	0	0
Silistra	40	0	0	0
Sliven	186	0	0	0
Smolyan	634	0	0	0
Sofia-city	0	0	0	0
Sofia-district	0	0	158	0
Stara Zagora	565	0	0	0
Targovishte	210	0	0	0
Haskovo	778	0	0	0
Shumen	155	0	0	0
Yambol	310	0	0	0
<b>Total</b>	<b>6750</b>	<b>0</b>	<b>835</b>	<b>0</b>

2021

Region	No. of serologically tested WB	No. of positives	No. of virologically tested WB	No. of positives
Blagoevgrad	0	0	175	0
Burgas	100	0	0	0
Varna	27	0	0	0
Veliko Tarnovo	59	0	0	0
Vidin	0	0	48	0
Vratza	0	0	58	0
Gabrovo	47	0	0	0
Dobrich	20	0	0	0
Kardzhali	188	0	0	0
Kyustendil	0	0	140	0
Lovech	0	0	74	0
Montana	0	0	39	0
Pazardzhik	251	0	32	0
Pernik	0	0	123	0
Pleven	0	0	11	0
Plovdiv	424	0	0	0
Razgrad	26	0	8	0
Ruse	13	0	30	0
Silistra	14	0	14	0
Sliven	33	0	22	0
Smolyan	250	0	0	0
Sofia-city	0	0	0	0
Sofia-district	0	0	158	0
Stara Zagora	269	0	0	0
Targovishte	17	0	8	0
Haskovo	117	0	4	0
Shumen	18	0	65	0
Yambol	28	0	23	0
<b>Total</b>	<b>1901</b>	<b>0</b>	<b>1032</b>	<b>0</b>

# Implementation of the CSF surveillance – wild boar

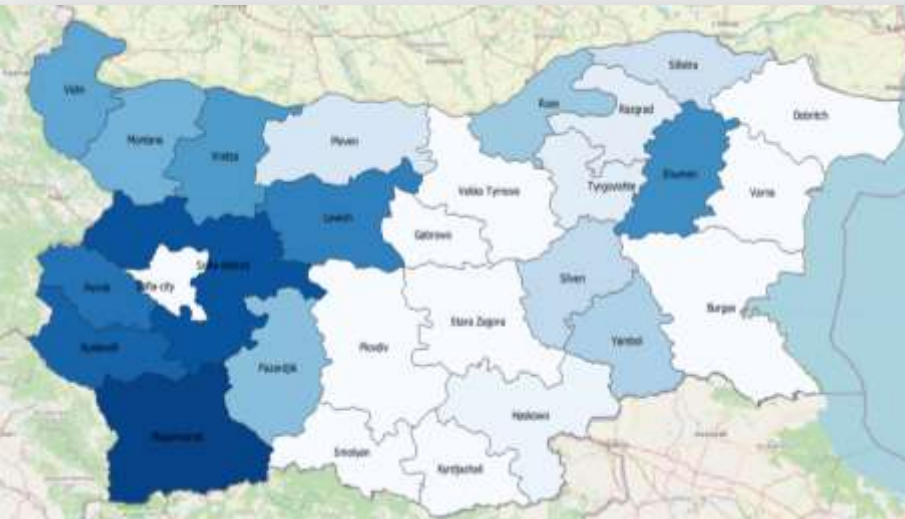
2020

2021

Serology



Virology



# Measures enforced in relation to hunt

- CA responsible for the hunting activities, incl. biosecurity – Forestry Executive Agency, within MAFF
- Ministerial Order 48-3/06.01.2020 setting requirements on:
  - ✓ biosecurity during hunt
  - ✓ notification and sampling
  - ✓ individual and group hunt
  - ✓ carcass disposal
  - ✓ templates



# Awareness

## Public



## Hunters

### Aiming at:

- Increase vigilance
- Disease characteristics
- Sampling
- Biosecurity during hunt

## Official veterinarians

### Aiming at:

- Increased knowledge and update on legislation
- Surveillance strategies
- Focusing on main aspects of OC in pig farms
- Strengthening checks on Biosecurity and CP plans in pig farms

### Aiming at:

- Strengthening the pig sector
- Increase of registrations
- Promote biosecurity





# Thank you!

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