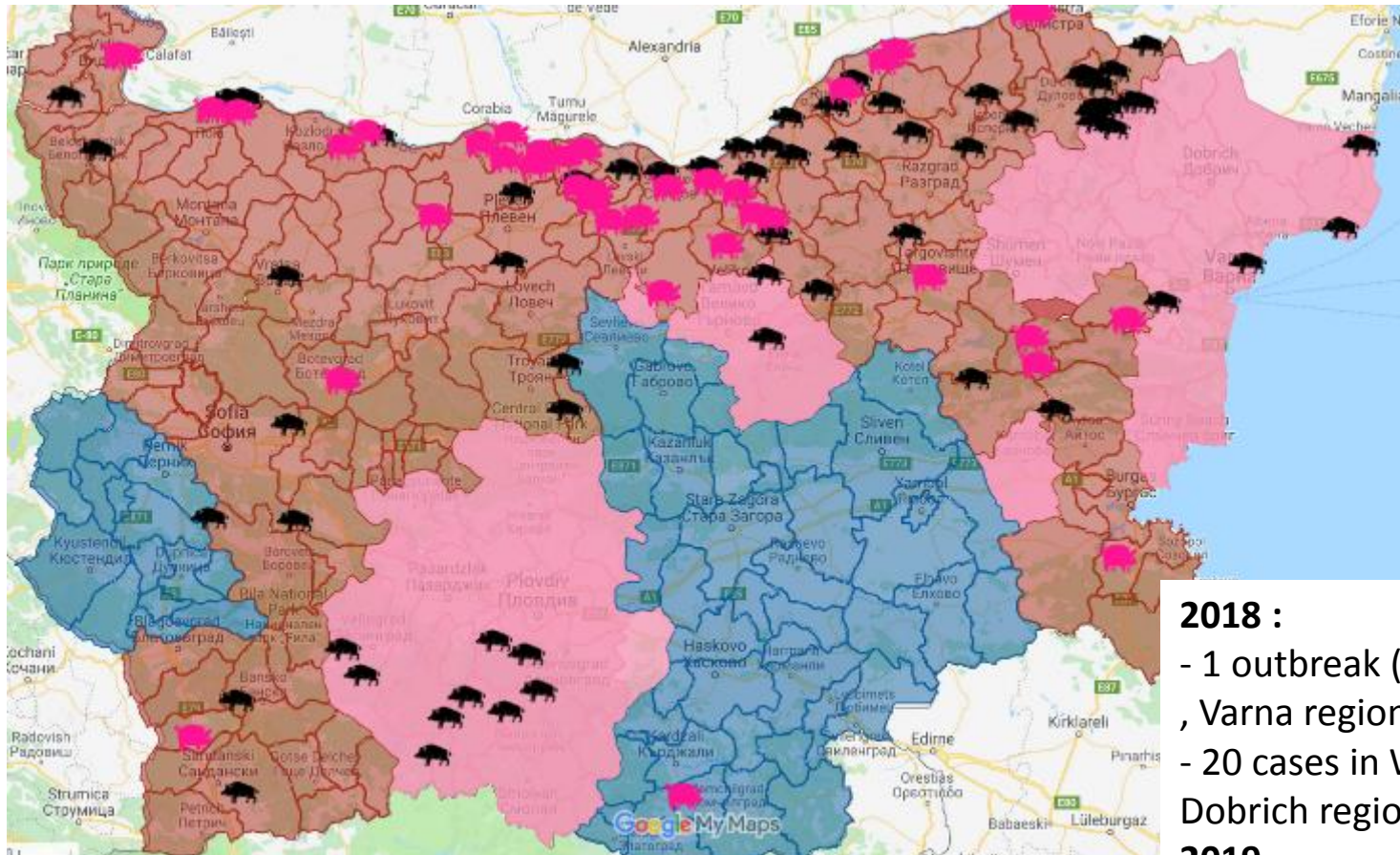


# African Swine Fever in Bulgaria

*SCoPAFF, 24-25.09.2019*



# Update of the ASF situation



## 2018 :

- 1 outbreak (31.08.2018, backyard , Varna region)
- 20 cases in WB ( Silistra and Dobrich regions)

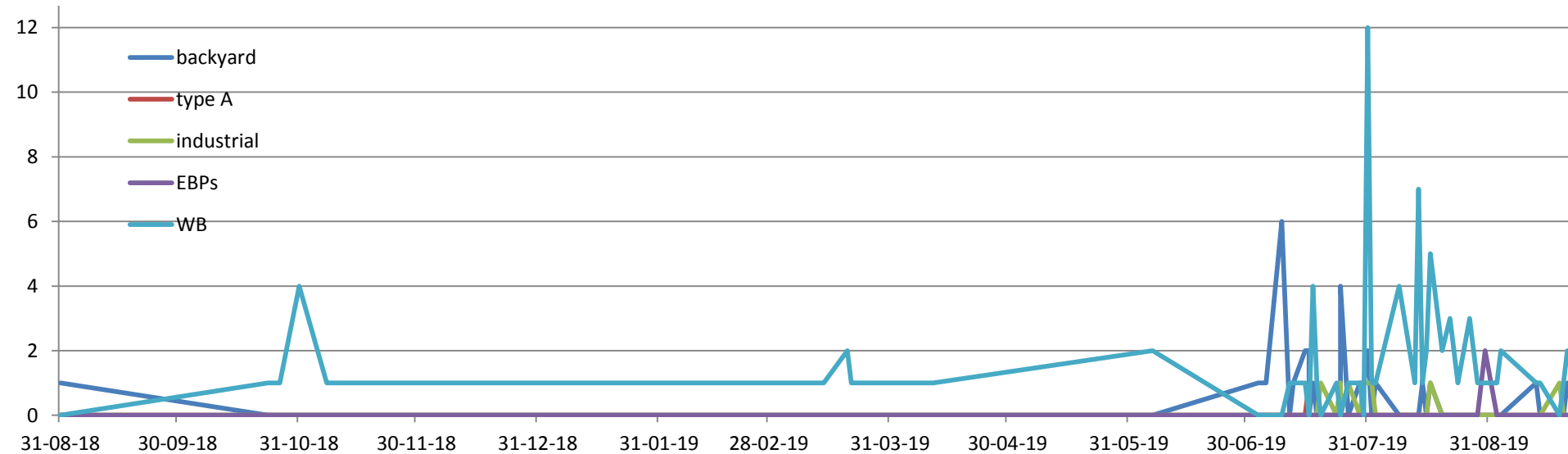
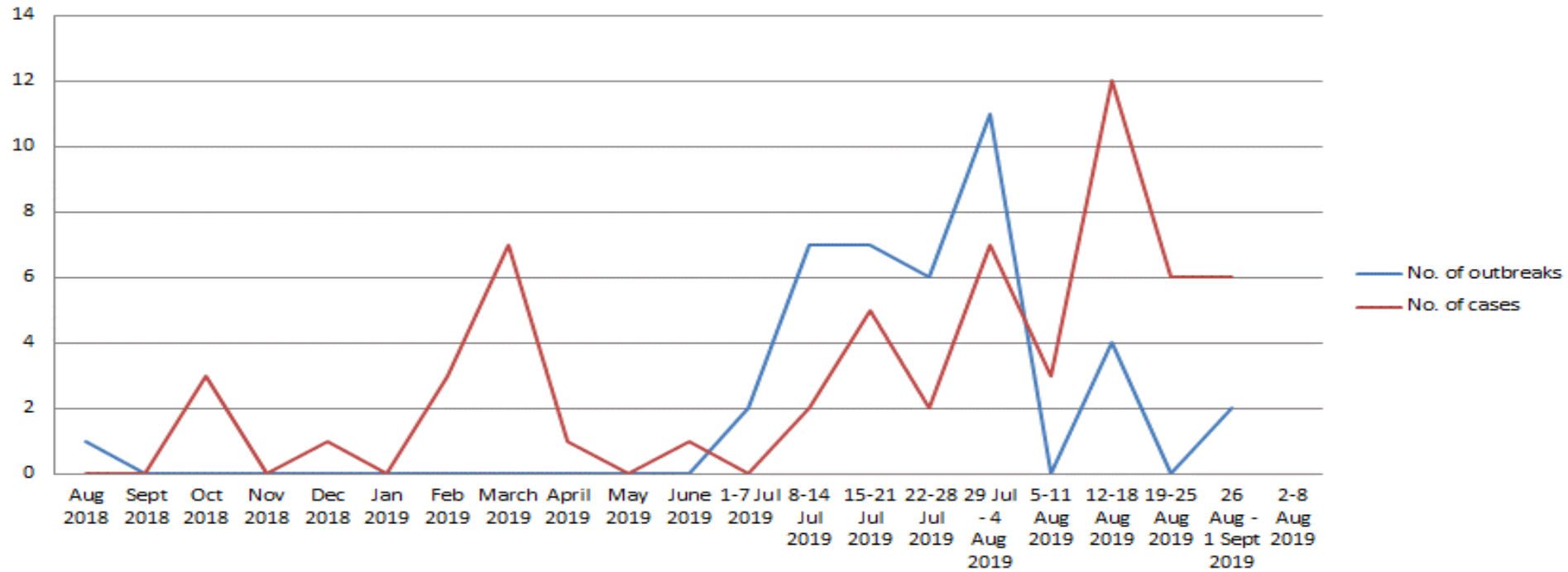
## 2019

- 38 outbreaks (8 commercial farms) in 13 regions (out of 28)
- 63 cases in 20 regions (out of 28)

- **Cases in WB**
- **Outbreaks in domestic pigs**
- Regionalization according to the Annex of CID 2014/709  
(**Part I, Part II, Part III**)

# ASF outbreaks and cases dynamics

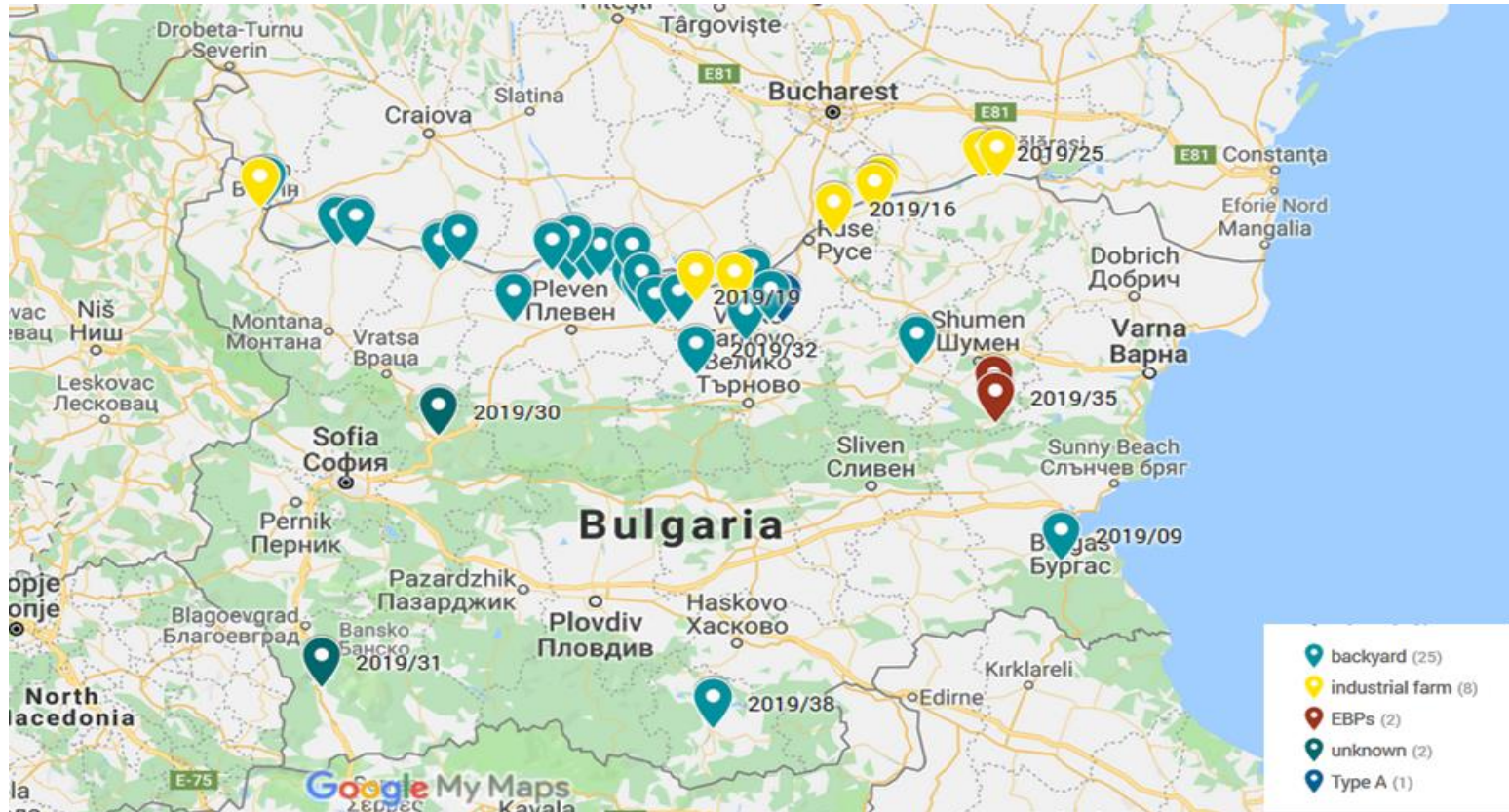
## Outbreaks and cases of ASF



# Outbreaks

ADNS	Region	Settlement	Type of surveillance		Category	No. of outbreaks	No. of animals
2019/1	Pleven	Zhernov	suspicion		Industrial	8	137702
2019/2	Pleven	Novachene	suspicion				
2019/03	Pleven	Brest	active surveillance in 10 km zone				
2019/04	Pleven	Milkovitza	active surveillance in 10 km zone		Type A	3	1501
2019/05	Pleven	Dolni vit	active surveillance in 10 km zone				
2019/06	Pleven	Dragash voyvoda	active surveillance in 10 km zone		Backyards	25	142
2019/07	Pleven	Batzova mahala	active surveillance in 10 km zone				
2019/08	Pleven	Sanadinovo	active surveillance in 10 km zone				
2019/09	Burgas	Zidarovo	suspicion		EBPs	2	161
2019/10	Pleven	Dabovan	active surveillance in 10 km zone				
2019/11	Vratza	Mizia	suspicion	15-Jul-2019	PCR	backyard	
2019/12	Pleven	Balgarene	suspicion	16-Jul-2019	PCR	backyard	
2019/13	Ruse	Tzenovo	suspicion	16-Jul-2019	PCR	backyard	
2019/14	Ruse	Pet kladentzi	suspicion	16-Jul-2019	PCR	Type A	
2019/15	Targovishte	Targovishte	suspicion	17-Jul-2019	PCR	backyard	
2019/16	Ruse	Nikolovo	passive surveillance	19-Jul-2019	PCR	industrial farm	
2019/17	Ruse	Brashlen	passive surveillance	24-Jul-2019	PCR	industrial farm	
2019/18	Ruse	Golyamo vranovo	passive surveillance	26-Jul-2019	PCR	industrial farm	
2019/19	Veliko Tarnovo	Morava	suspicion	24-Jul-2019	PCR	backyard	
2019/20	Vratza	Oryahovo	suspicion	24-Jul-2019	PCR	backyard	
2019/21	Pleven	Iskar	passive surveillance	24-Jul-2019	PCR	backyard	
2019/22	Veliko Tarnovo	Klimentovo	suspicion	24-Jul-2019	PCR	backyard	
2019/23	Vidin	Novi pat, Vidin	suspicion	29-Jul-2019	PCR	backyard	
2019/24	Ruse	Byala	active surveillance in 10 km zone	30-Jul-2019	PCR	backyard	
2019/25	Silistra	Popina	active surveillance	30-Jul-2019	PCR	industrial farm	
2019/26	Veliko Tarnovo	Bulgarsko slivovo	active surveillance	31-Jul-2019	PCR	industrial farm	
2019/27	Montana	Mladenovo, Lom	active surveillance following a case in WB	31-Jul-2019	PCR	backyard	
2019/28	Montana	Kovachitza	active surveillance following a case in WB	31-Jul-2019	PCR	backyard	
2019/29	Silistra	Vetren	active surveillance	1-Aug-2019	PCR	industrial farm	
2019/30	Sofia-district	Trudovetz	passive surveillance	2-Aug-2019	PCR	unknown	
2019/31	Blagoevgrad	Kresna	passive surveillance	14.08.2019 r.	PCR	unknown	
2019/32	Veliko Tarnovo	Byala cherkva	suspicion	16.08.2019 r.	PCR	backyard	
2019/33	Ruse	Karamanovo	suspicion	16.08.2019 r.	PCR	industrial farm	
2019/34	Shumen	Smyadovo	suspicion	30.08.2019 r.	PCR	EBPs	
2019/35	Shumen	Veselinovo	suspicion	30.08.2019 r.	PCR	EBPs	
2019/36	Pleven	Gigen	suspicion	12-Sept-19	PCR	backyard	
2019/37	Vidin	Novoseltsi	suspicion	18.09.2019 r.	PCR	industrial farm	
2019/38	Kardzhali	Momchilgrad	suspicion	20.09.2019 r.	PCR	backyard	

# Outbreaks/ backyards



## Backyards – all unregistered

### 1. Notification based on:

- 13 outbreaks following the suspicion
- 8 outbreaks detected within the active surveillance in 10 km zone around the outbreak
- 2 outbreaks following the case in WB
- 2 outbreaks (unknown ) cadavers found

2. Domestic pigs culled - 142 in the holdings affected, 870 pigs in the risk zone identified around the outbreaks

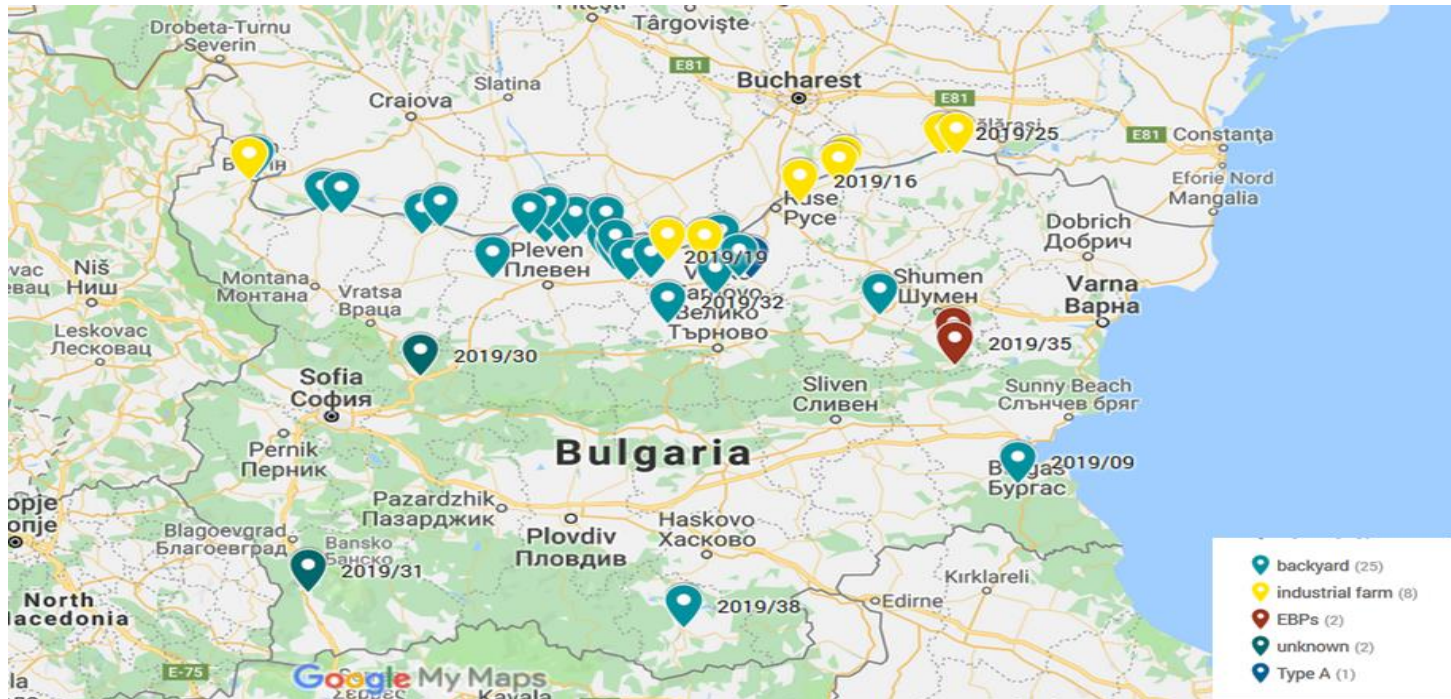
# Outbreaks/backyards

## 2. Possible source and pathway of the infection:

- No biosecurity measures in place
- Mechanically through contaminated vehicles/people – most possible:
  - located on a transit road with Ro with trucks passing
  - equipment and vehicles of the owner-agri producer (poor biosec on entrance)
  - visitors (including private vet and hunter)
- Direct contact with WB – all were fenced premises ; suspicion for outdoor keeping pigs in 5 holdings
- Feed – moderate – suspicion for swill-feeding in 15 holdings all other used own-crop produced feed.
- Illegal animal movement to the holding – likely for 2 holdings.



# Outbreaks/ commercial farms



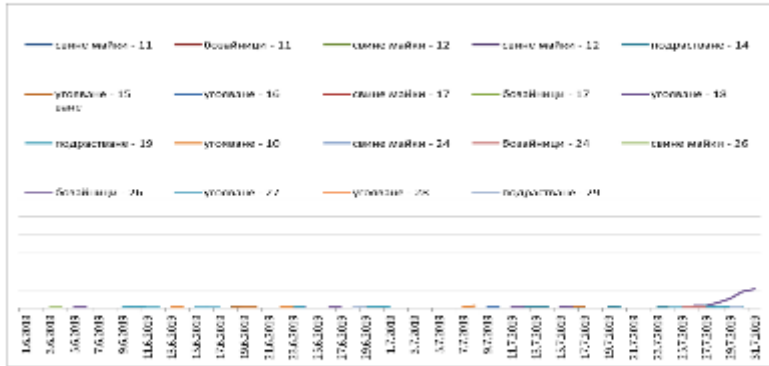
## Industrial and family type farms

- Notification based on passive surveillance ( sampling of dead animals per pens each week)
- Domestic pigs culled - 139 203
- Closed production cycle
- Culling, cleaning and disinfection have been completed in all farms (except in ADNS 2019/18 and 37)
- Last outbreak - 18/09/2019 (4000 pigs)
- Two farms confirmed after ASF in wild boar/ backyard around (ADNS 2019/26 and 37 )

# Outbreaks/ commercial farms

ADNS 2019 /26

Farm BILIANA, Balgarsko Slivovo, Svishtov



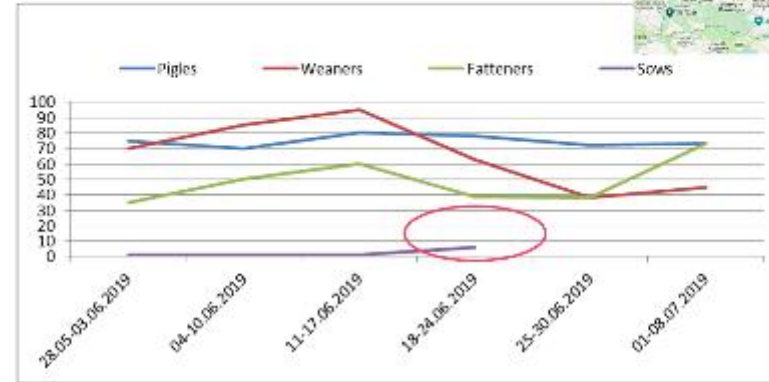
- Assessment of unit mortality data
- Passive surveillance samples collected on weekly basis
- Estimated high-risk period: 6 weeks

## Industrial and family type farms

- Mortality started in one/or two production unit/s
- Low mortality and morbidity detected , only singles pens (1-10 pigs)
- Low spread of the infection between the different production pens
- Estimated high-risk period: from 2 to 8 weeks

Farm Nikolovo, Ruse region

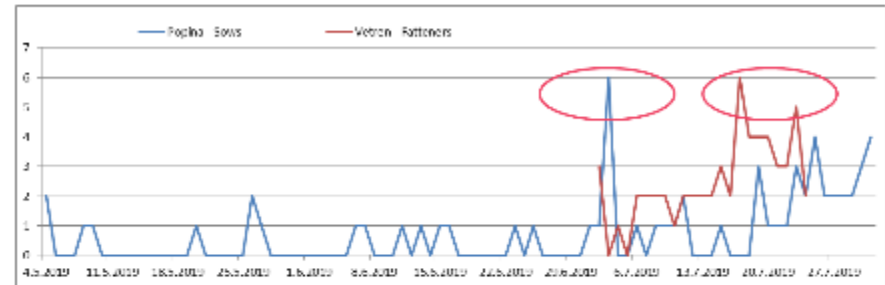
ADNS 2019 /16



- Sow section was most probable already affected in May/June
- Passive surveillance sampling each week
- Estimated high-risk period: 8 weeks

Farms Popina and Vetren, Silistra

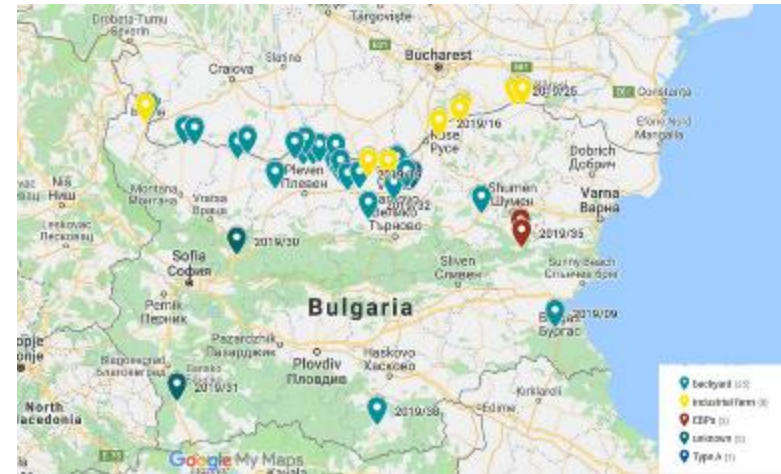
ADNS 2019 /25-29



- Assessment of unit mortality data (in two affected farms)
- Estimated high-risk period: 6 weeks
- Passive surveillance sampling on weekly basis



# Outbreaks/ commercial farms



Possible source and pathway of the infection:

## Working hypothesis:

- Indirect transpission routes – due to Biosecurity breaches – high probability –  
→ 1 farm (ADNS 2010/16) a old facilities with poor biosecurity that require a lot of manual work (feeding/cleaning)
- Transport vehicles – high (2 farms) and moderate (6) probability (own vehicles used inside in the farm, dedicated feed truck for the farm, common slaughterhouse vehicles)
- Feed/water –high (2) and moderate (6) probability of secondary contamination (heat treatment during processing of the feed)
- Animal movement – ruled out (no movements to the farm in the past months) closed production cycle (8 farms)
- WB contacts – ruled out

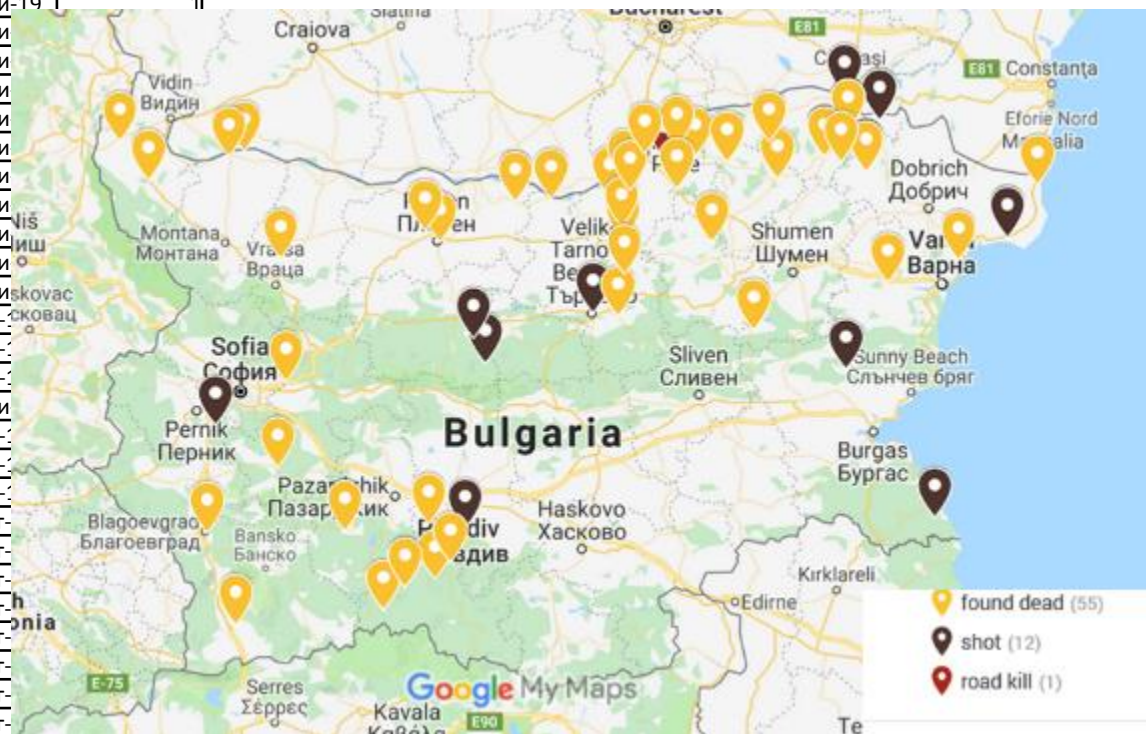
Traced meat and meat products from the industrial farms affected by ASF/ amount of meat , meat products and by products destroyed or heat processed: slaughterhouses, processing plant , sales

Outbreaks	meat, meat products, by products		
	Total amount entered	total amount destroyed	total amount heat treated
ADNS 2019/16	39730	48811	39651
ADNS 2019/17	247847	118994	33660
ADNS 2019/18	228541	10888	9941
ADNS 2019/25	98216	30674	5298
ADNS 2019/26	136788	68744	4568
ADNS 2019/29	18420	0	0
ADNS 2019/33	71	71	0
ADNS 38	18808		
Total	769612	278182	93118

# Cases in WB

ADNS	Region	Village	Type of surveillance	Date of confirmation	No of animals
2018/1	Silistra	Кайнарджа	shot	23-Oct-18	1
2018.2	Silistra	Кайнарджа	shot	26-окт-18	1
2018/3	Dobrich	КаVарна	shot	7-14-Oct-18	4
2018.4	Dobrich	КаVарна	shot	7-ное-18	11
2018.5	Silistra	Зли дол	shot	27-дек-18	1
2019.1	Varna	Девня	found dead	13- фев-19	1
2019.2	Dobrich	Тервел	found dead	25-Feb-19	1
2019.3	Dobrich	Тервел	found dead	27-Feb-19	1
2019.4	Silistra	Дулово	found dead	6-Mar-19	1
2019.5	Silistra	Дулово	found dead	6-Mar-19	1
2019.6	Silistra	Дулово	found dead	14-Mar-19	1
2019.7	Silistra	Алфатар	found dead	20-Mar-19	2
2019.8	Dobrich	Тервел	found dead	21-Mar-19	1
2019.9	Dobrich	Тервел	found dead	22-Mar-19	1
2019.10	Silistra	Алфатар	found dead	25-Mar-19	1
2019.11	Dobrich	Тервел	found dead	11-Apr-19	1
2019.12	Silistra	Алфатар	found dead	06-юни-19	2
2019/13	Pleven	Деков	found dead	11-юли-19	1
2019/14	Pleven	Деков	found dead	12-юли-19	1
2019/15	Dobrich	Дуранкулак	found dead	15-юли	1
2019/16	Враца	Чирен	found dead	17-юли	1
2019/17	Ruse	Горно Абланово	found dead	17-юли	1
2019/18	Търговище	Еленово	found dead	17-юли	1
2019/19	Silistra	Дулово	found dead	18-юли	1
2019/20	Montana	Долно Линево	found dead	23-юли	1
2019/21	V Tarnovo	Свищов	found dead	26-юли	1
2019/22	Razgrad	Исперих	found dead	31-юли	1
2019/23	Plovdiv	Куклен	shot	31-юли	1
2019/24	Ruse	Червена вода	road kill	29-юли	1
2019/25	Ruse	Тетово	found dead	1-авг-	1
2019/26	Vidin	Бела	found dead	1-авг-	1
2019/27	Sofia-district	Самоков	found dead	2-авг-	1
2019/28	Silistra	Осен	found dead	31-юли	1
2019/29	V Tarnovo	Ново Градище	shot	8-авг-	1
2019/30	Shumen	Върбица	found dead	8-авг-	1
2019/31	Smolyan	Змеица	found dead	8-авг-	1
2019/32	Ruse	Бистренци	found dead	12-авг-	1
2019/33	Smolyan	Девин	found dead	13-авг-	1
2019/34	Sofia-city	Желява	found dead	13-авг-	1
2019/35	Silistra	Върбино	found dead	13-авг-	1
2019/36	Ruse	общ. Борово	found dead	14-авг-	1
2019/37	Ruse	Мечка	found dead	15-авг-	1
2019/38	Ruse	Просена	found dead	15-авг-	1
2019/39	Smolyan	Забърдо	found dead	16-авг-	1

Category	No. of cases	No. of animals	Passive	Active
WB	66	104	44	22



# Measures enforced - 1

- 3 and 10-km zones
- Culling of all domestic pigs reared in holding with/ no biosecurity measures in the high risk areas around the outbreaks (based on the surveillance data, analysis. etc
- Cleansing and disinfection
- Clinical and examinations and sampling in the 10-km zones
- Disinfection posts and vehicle checks
- No compensation for backyards



# Measures enforced - 2

- Clinical examinations in all affected regions
- Checks for illegal movement
- Ban of animal markets and exhibitions of pigs
- Epi-commissions in all high-risk regions
- Movement of pigs – in accordance with CID (EU) 2014/709, additional Ordinances of BFSA providing the instructions for the implementation

Further to the development of the situation:

- Preventive culling of pigs in backyards in risk areas
- Keeping pigs in backyard is not allowed for one year at least
- Amendment of the legislation (biosecurity and decreasing number of pigs in the backyards)

# Surveillance regimen

## Including the following elements:

- Biosecurity checks
- Sampling of pigs found dead on a weekly basis
- Checking mortality rates

Приложение към Заповед .....

### План за проверки по биосигурност, клинични прегледи и пробовземане за болестта Африканска чума по свинете (АЧ)

	2. Категория	3. Проверки за биосигурност	4. Клинични прегледи		5. Проби вирусологично изследване	6. Проби серологично изследване	7. Изследвания при съмнение	8. Вирусологични изследвания и клинични прегледи преди движение
от РИК	Индустриални	ОВЛ 4 пъти годишно от ОВЛ, като се документира с чек-лист (Образец ЗХОЖ 213 - Контролен лист за проверка на биосигурността в свиневъдните обекти. (16.4.2019г.) )	ОВЛ 2 пъти годишно от ОВЛ на всички производствени категории в стопанството. Във всяка категория се прегледат брой свине, така че да се открие 10% превалентност с 95% достоверност	РВЛ На всяка пратка свине, отиваща за клане или доотглеждане. Прегледат се брой свине от пратката, така че да се открие 5% превалентност с 95% достоверност	Официален контрол <sup>1</sup> Ежеседмично от всяка технологична единица по 2 проби от умрели свине над 60-дневна възраст	При съмнение за сероконверсия	Проби за вирусологични изследвания – от всяка свиня, показваща кл. симптоми, съвместими с чума по свинете (вкл. и с T>40°), всяка умряла свиня-майка/нерез.	В случай на липса на ежеседмичните изследвания по т. 5, се вземат проби за вирусологично изследване от брой свине от пратката за установяване на 5% разпространение с 95% достоверност в рамките на 7 дни преди движението. Пробите се вземат от РВЛ. Клинични прегледи и издаване на ВМС се извършват от РВЛ
	Фамилни ферми тип А	4 пъти годишно от ОВЛ като се документира с чек-лист (Образец ЗХОЖ 213 - Контролен лист за проверка на биосигурността в свиневъдните обекти. (16.4.2019г.) )	2 пъти годишно от ОВЛ на всички производствени категории в стопанството. Във всяка категория се прегледат брой свине, така че да се открие 10% превалентност с 95% достоверност	На всяка пратка свине, отиваща за клане или доотглеждане. Прегледат се брой свине от пратката, така че да се открие 5% превалентност с 95% достоверност	Когато е приложимо за типа производство - ежеседмично от всяка технологична единица по 2 проби от умрели свине над 60-дневна възраст	При съмнение за сероконверсия	Проби за вирусологични изследвания – от всяка свиня, показваща кл. симптоми, съвместими с чума по свинете (вкл. и с T>40°), всяка умряла свиня-майка/нерез.	В случай на липса на ежеседмичните изследвания по т. 5, се вземат проби за вирусологично изследване от брой свине от пратката за установяване на 5% разпространение с 95% достоверност в рамките на 7 дни преди движението. Пробите се вземат от РВЛ. Клинични

<sup>1</sup> Рутинните ежеседмични проби се вземат от РВЛ, обслужващ съответния свиневъден обект и се изпращат до Националната референтна лаборатория за Класическа и Африканска чума по свинете. Лабораторното изследване е за сметка на БАБХ.

# Domestic pigs surveillance

**In the zones of the country already considered affected at the beginning of the period**

Period considered ( <i>ideally 29 May to 10 September</i> )	N° suspicions Commercial farms and backyards	N° confirmed outbreaks Commercial farms / backyards/EBP
01 Jan – 04 Sept 2019	175 (2012 samples only as suspicions)	8/25/2

Targeted passive surveillance in commercial farms:

- Samples from 2 dead pigs in each production category per week
- 2968 under the enhanced targeted passive surveillance for the period June – Aug 2019

# Wild boar surveillance

**In the zones of the country considered free until at least the beginning of the period**

## Wild boar found dead

Period	N° wild boar found dead	% PCR positive	% seropositive
01 Jan – 04 Sept 2019	11	0	0

## Wild boar hunted

Period	N° wild boar hunted	% PCR positive	% seropositive
01 Jan – 04 Sept 2019	4814	0	0

**In the zones of the country already considered affected at the beginning of the period**

## Wild boar found dead

Period	N° wild boar found dead	% PCR positive	% seropositive
01 Jan – 04 Sept 2019	289	24,56% (71)	0%

## Wild boar hunted

Period	N° wild boar hunted	% PCR positive	% seropositive
01 Jan – 04 Sept 2019	8443	0,071 (6)	0



# Main stakeholders involved in the ASF control

## *Ministry of Agriculture, Food and Forestry (MAFF)*

- Bulgarian Food Safety Agency (BFSA)
- Executive Forestry Agency (EFA)

## *Ministry of Environment*

## *Ministry of Interior*

## *Hunting organizations and associations*

## *Pig industry*

# General measures and inter-institutional cooperation

- Epizootic Committee on ministerial level – coordination body for the ASF measures applied
- Additional budget foreseen for the purposes of ASF control
- Involvement of regional governors, regional administrations and law-enforcement bodies in the control measures

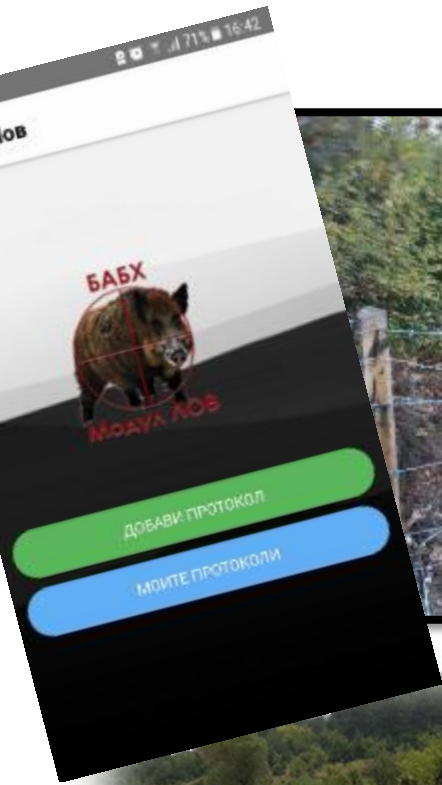
# General measures and inter-institutional cooperation

- Stricter movement control of people, animals and animal origin foods/products coming from countries with ASF;
- Test and disposal of all meat products found by border inspections;
- Disinfection of vehicles upon entry in the country;
- Disposal of leftovers from air and maritime vehicles;
- Development of individual contingency plans for all industrial farms, reorganization of schedule of slaughter;
- Regular meetings with stakeholders (Executive Agency for Forestry (EAF), hunting organizations and associations, pig industry) on regional and central level;
- Additional training on biosecurity for industrial farms;
- Trainings and awareness for target groups (owners, hunters);
- Awareness materials (leaflets, posters, videos, online)
- Updated biosecurity instruction and legislative

Prevention and surveillance measures available before the ASF incursion



# General measures and inter-institutional cooperation



- Ban of feeding with fresh grass/special measures applicable to feed in relation ASF
- Development of mobile application for WB samples submission
- Ban on trade of wild boar into the territory of Bulgaria
- Trainings of hunters on epidemiology, sampling and enhanced biosecurity measures
- Building of dedicated pits for WB carcasses and ABPs disposal in hunting grounds;
- Fence along the land border with Romania
- Awareness campaigns and regular info updates from the BFSA (<http://www.babh.government.bg/bg/Page/ASF2/index/ASF2/%D0%90%D1%84%D1%80%D0%B8%D0%BA%D0%B0%D0%BD%D1%81%D0%BA%D0%B0>)
- Amendments of the hunting season periods



# Hunt restrictions

- Ordinance of the Minister of Agriculture, Food and Forestry:
  - Setting general provisions and particular instructions on restrictions in infected areas (200 sq km), hunt regimen, notifications, incentives, etc.:
  - Financial support introduced since July 2019 (found dead in entire country and shot by individual hunting)

2 months following the last confirmed WB case	At least 2-4 months following the last confirmed WB case	At least 4-6 following the last confirmed WB	At least 6 months following the last confirmed case
<ol style="list-style-type: none"> <li>1. Restricted access to the zone</li> <li>2. Ban of hunt</li> <li>3. Ban of feeding</li> <li>4. Biosecurity measures</li> <li>5. Searching for WB carcasses</li> <li>6. Sampling of each WB found dead and testing</li> <li>7. Disposal of the carcasses found</li> <li>8. Completing the online app</li> </ol>	<ol style="list-style-type: none"> <li>1. Biosecurity</li> <li>2. Individual hunt</li> <li>3. Traps</li> <li>4. Searching</li> <li>5. Sampling and testing of all WB found dead or shot</li> <li>6. Completing the online app</li> <li>7. Disposal of all carcasses (found dead/shot)</li> <li>8. Protocol by official vet</li> </ol>	<ol style="list-style-type: none"> <li>1. Biosecurity</li> <li>2. Individual hunt</li> <li>3. Group hunt (not driven)</li> <li>4. Traps</li> <li>5. Storage facilities</li> <li>6. Sampling and testing of all WB (found dead/shot)</li> <li>7. Completing the online app</li> <li>8. Disposal of all carcasses of WB found dead</li> <li>9. Possibility of consumption of WB within the zone further to negative results</li> </ol>	<ol style="list-style-type: none"> <li>1. Biosecurity</li> <li>2. Individual hunt</li> <li>3. Group hunt</li> <li>4. Traps</li> <li>5. Storage facilities</li> <li>6. Sampling and testing of all WB (found dead/shot)</li> <li>7. Completing the online app</li> <li>8. Disposal of all carcasses of WB found dead</li> <li>9. Possibility of consumption of WB within the zone further to negative results</li> </ol>

# New regionalization to be proposed

In line with the developments of the ASF situation

- Gabrovo region from Part I to Part II (case ADNS 2019/62)
- Kardzhaly from Part I to Part III (outbreak ADNS 2019/38)



CID 2019/1392 from 09/09/2019



Proposed revision



# Thank you!

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