



# Real cases eradication ASF in Russia

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Bangkok  
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# Contents

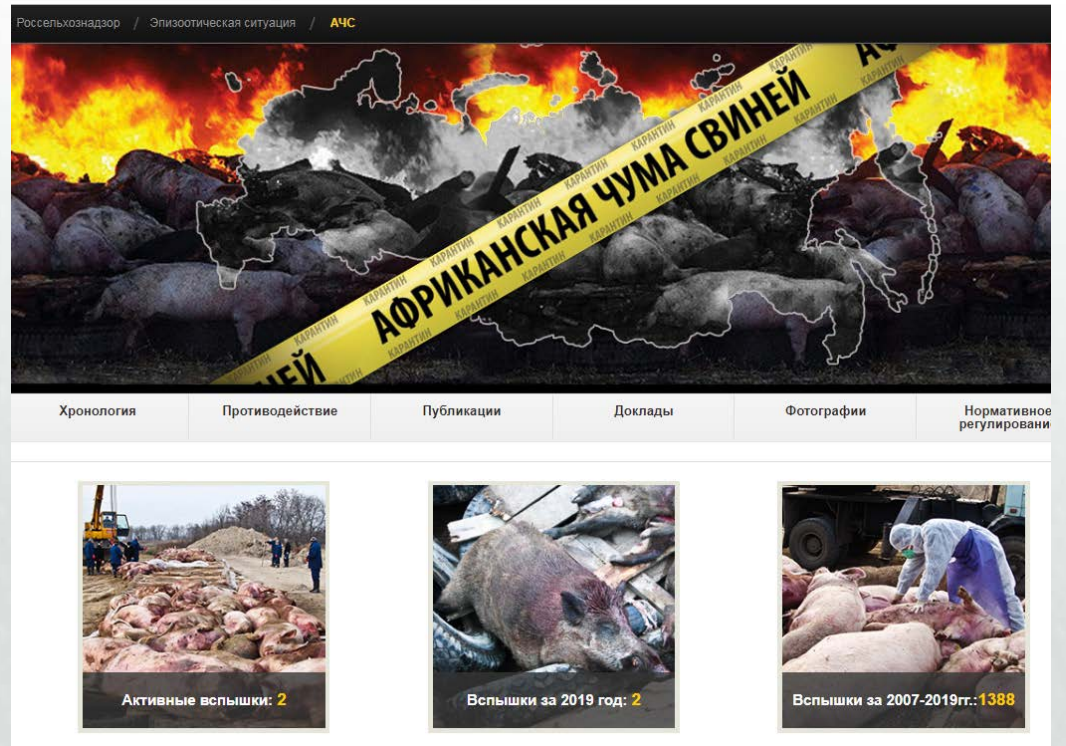
ASF in Russia

Some real eradication Case

- Small village (back yard)
- Small farm
- Modern pig farm

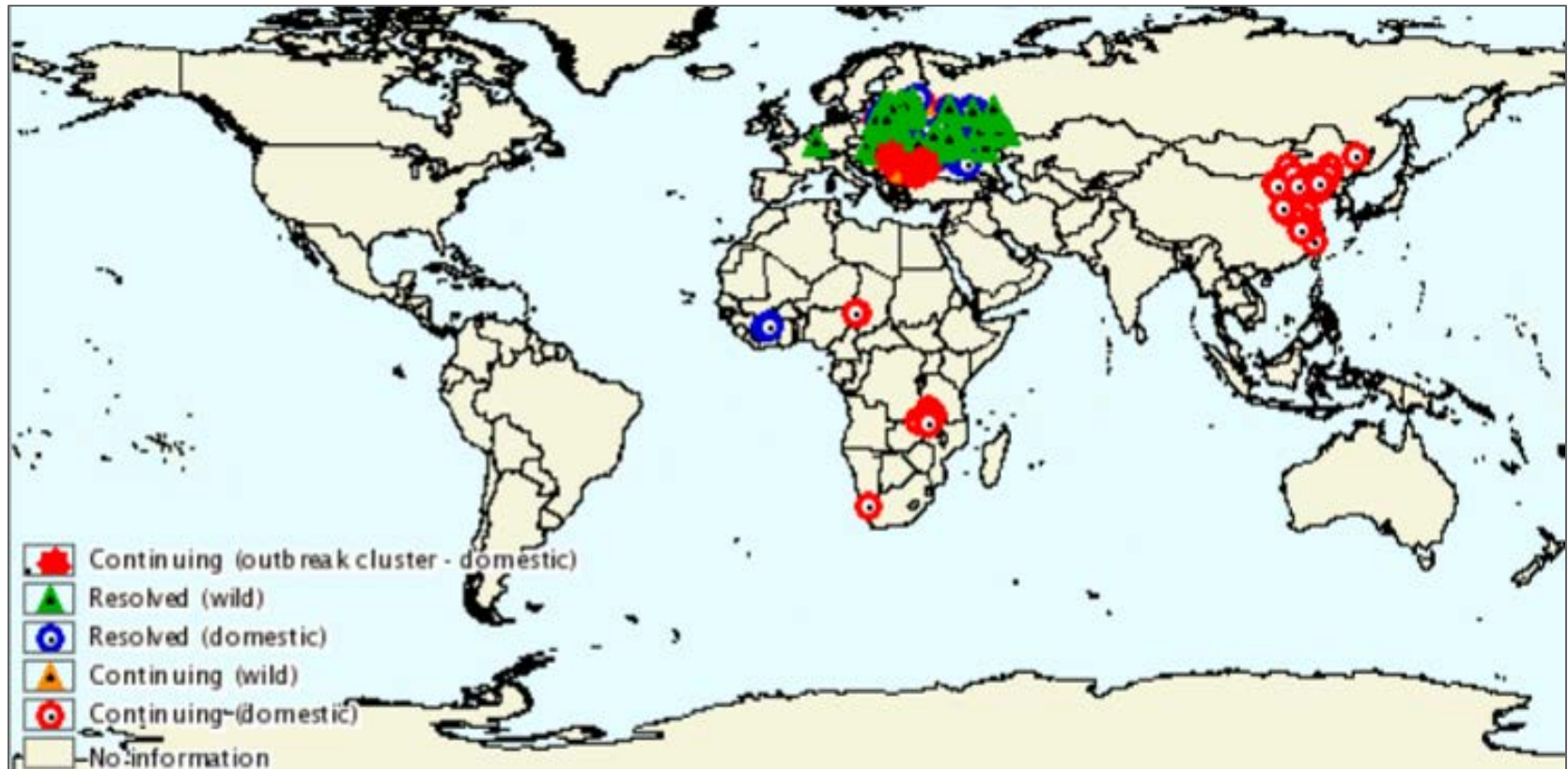
Main stages of eradication

Massage to home



# African Swine Fever in the World

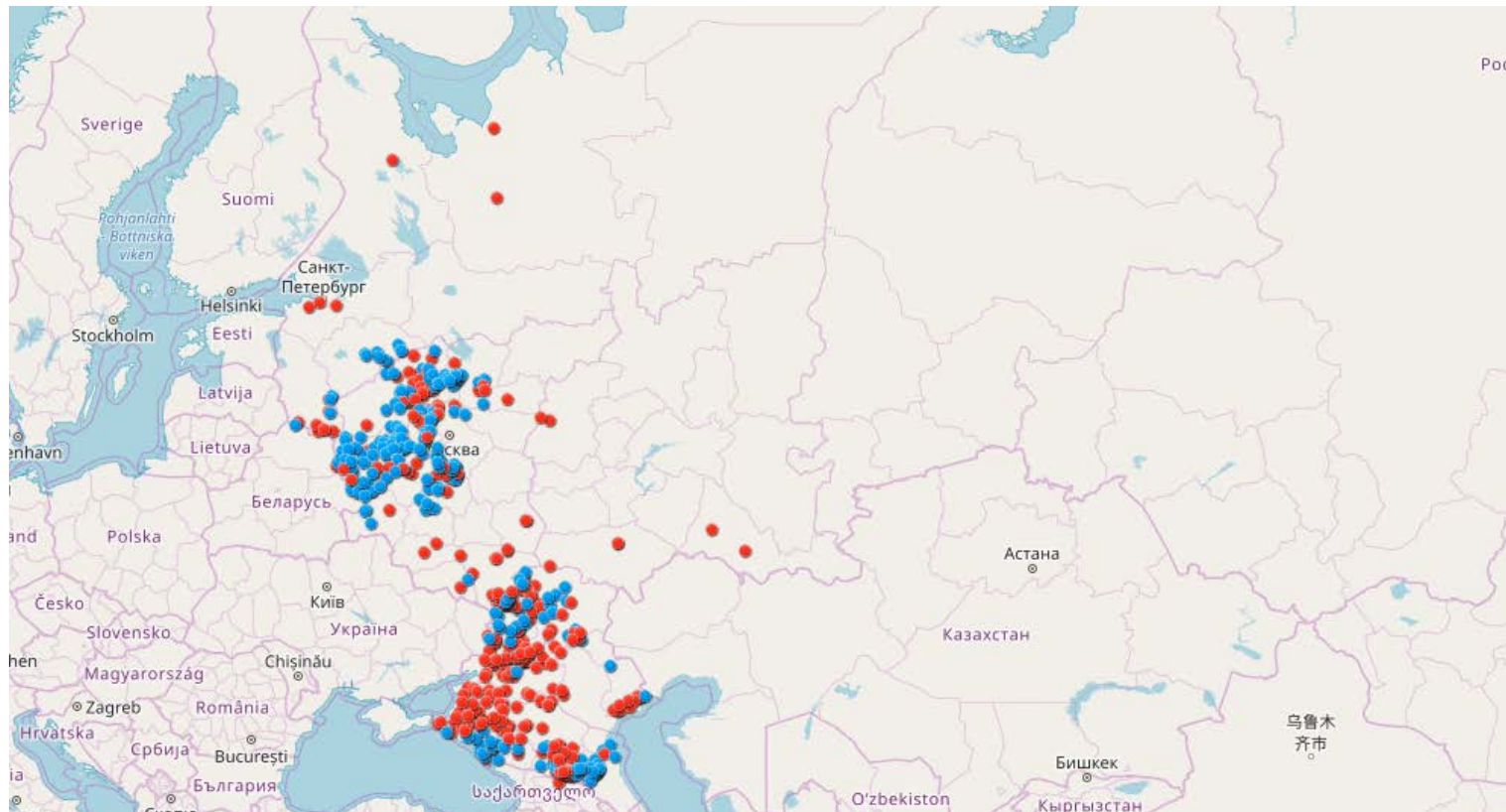
2007-2018





# ASF in Russia

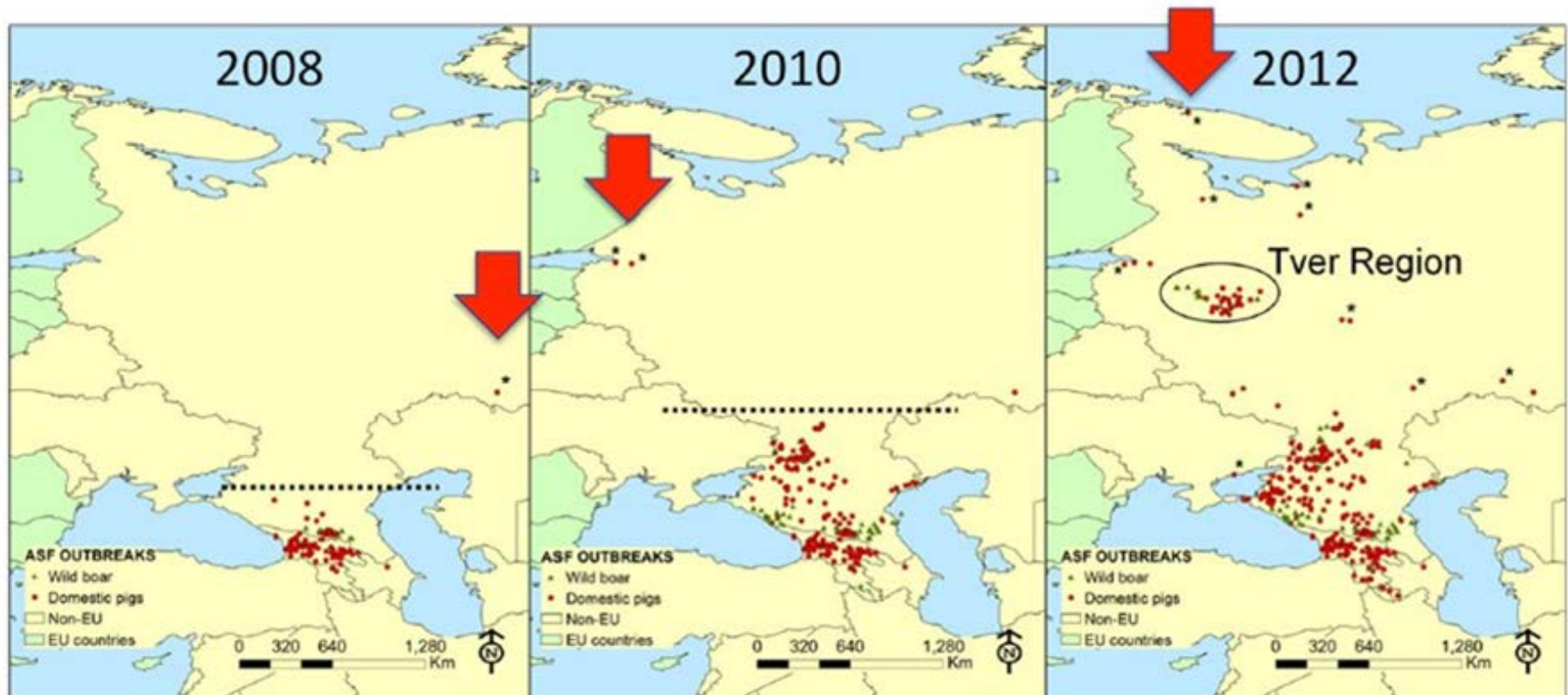
2007-2014





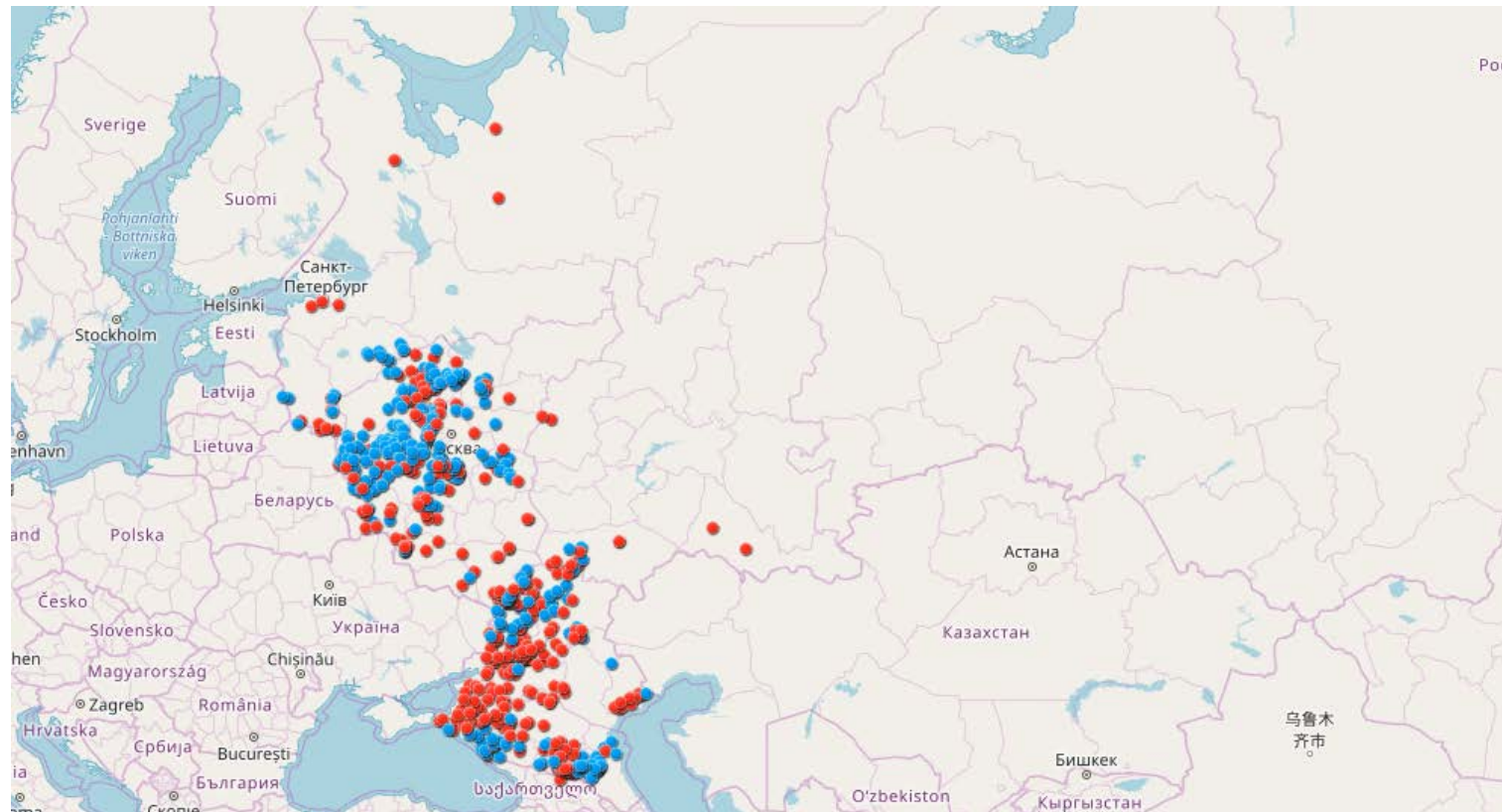
# ASF in Russia

2007-2014



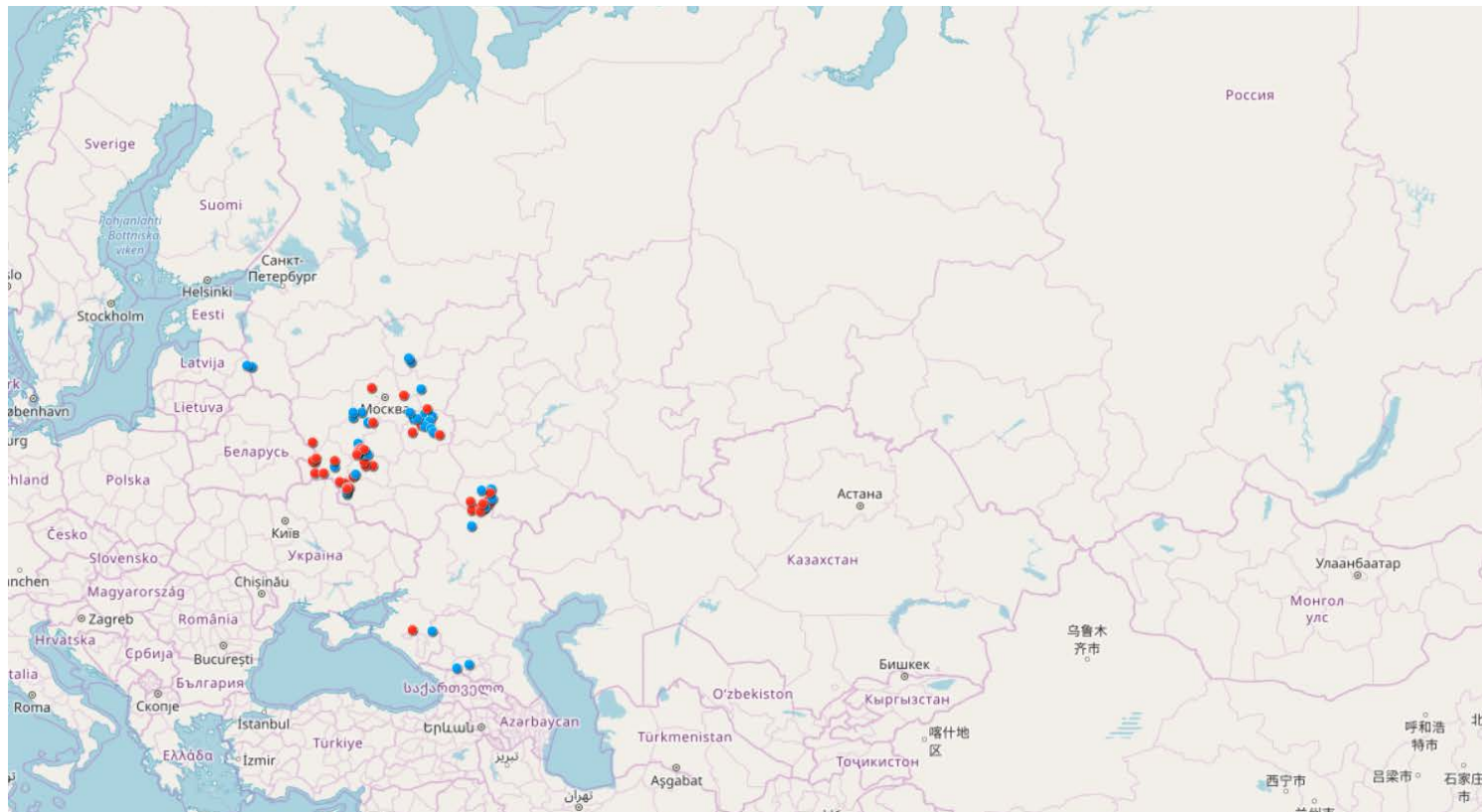
# ASF in Russia

2007-2015



# ASF in Russia

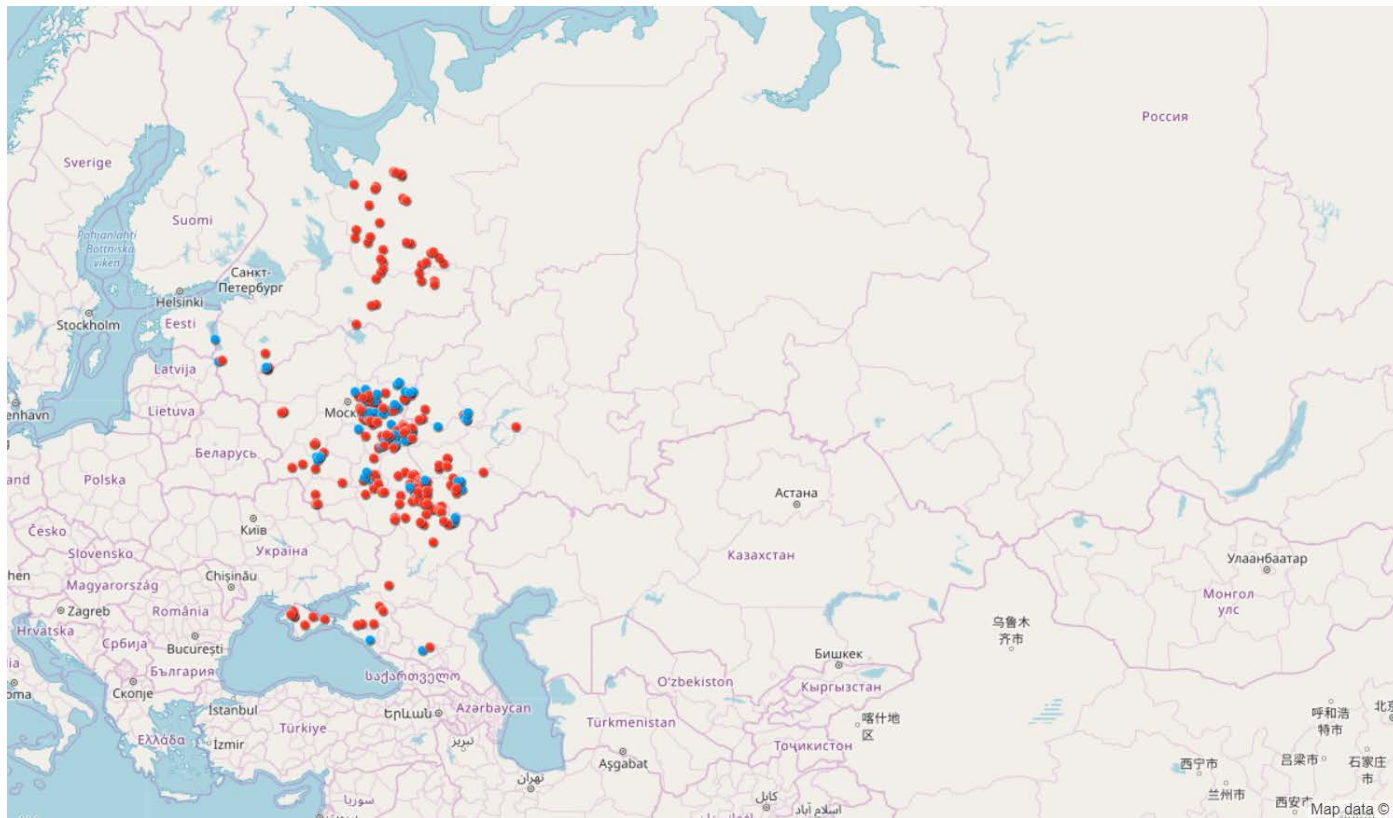
2015





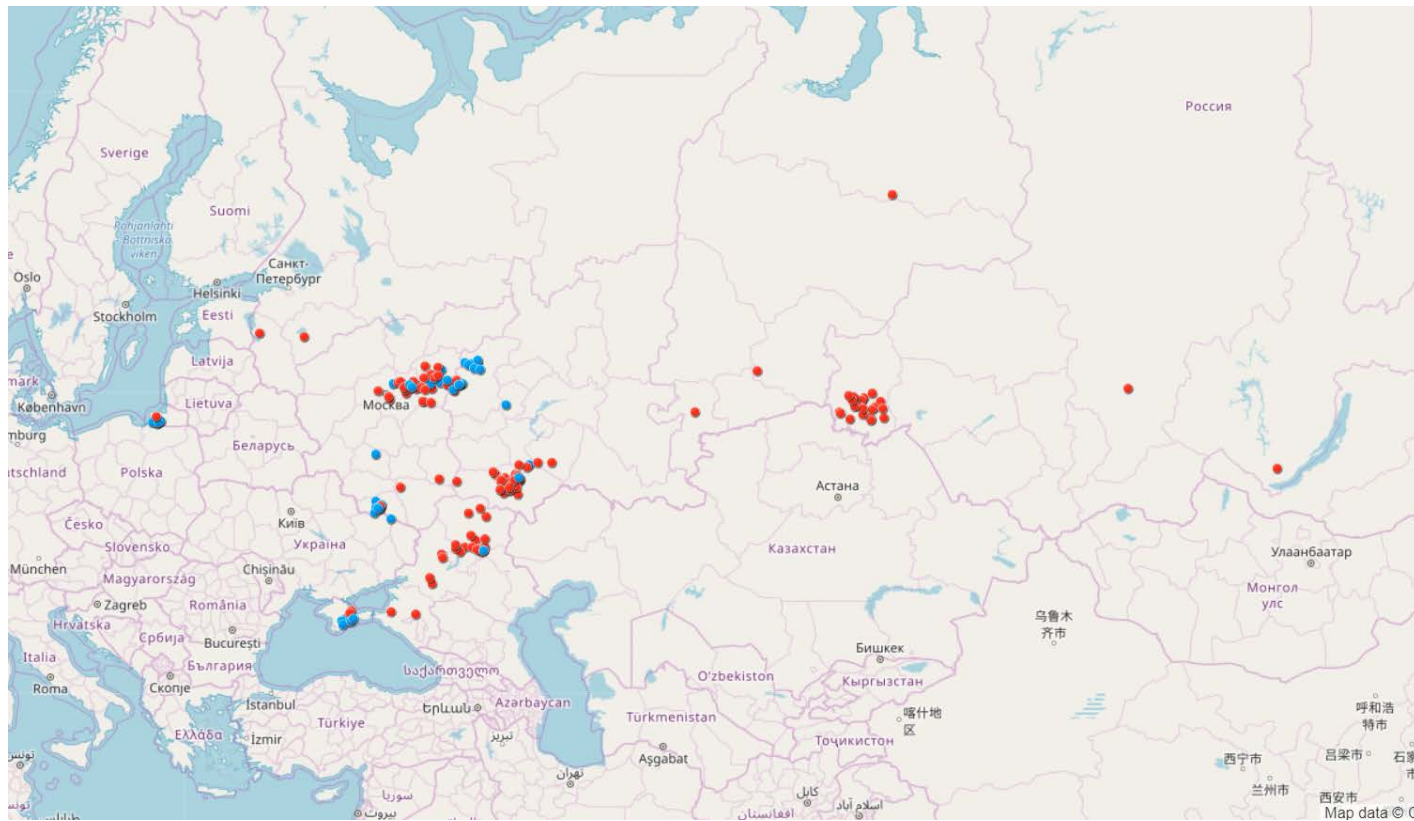
# ASF in Russia

2016



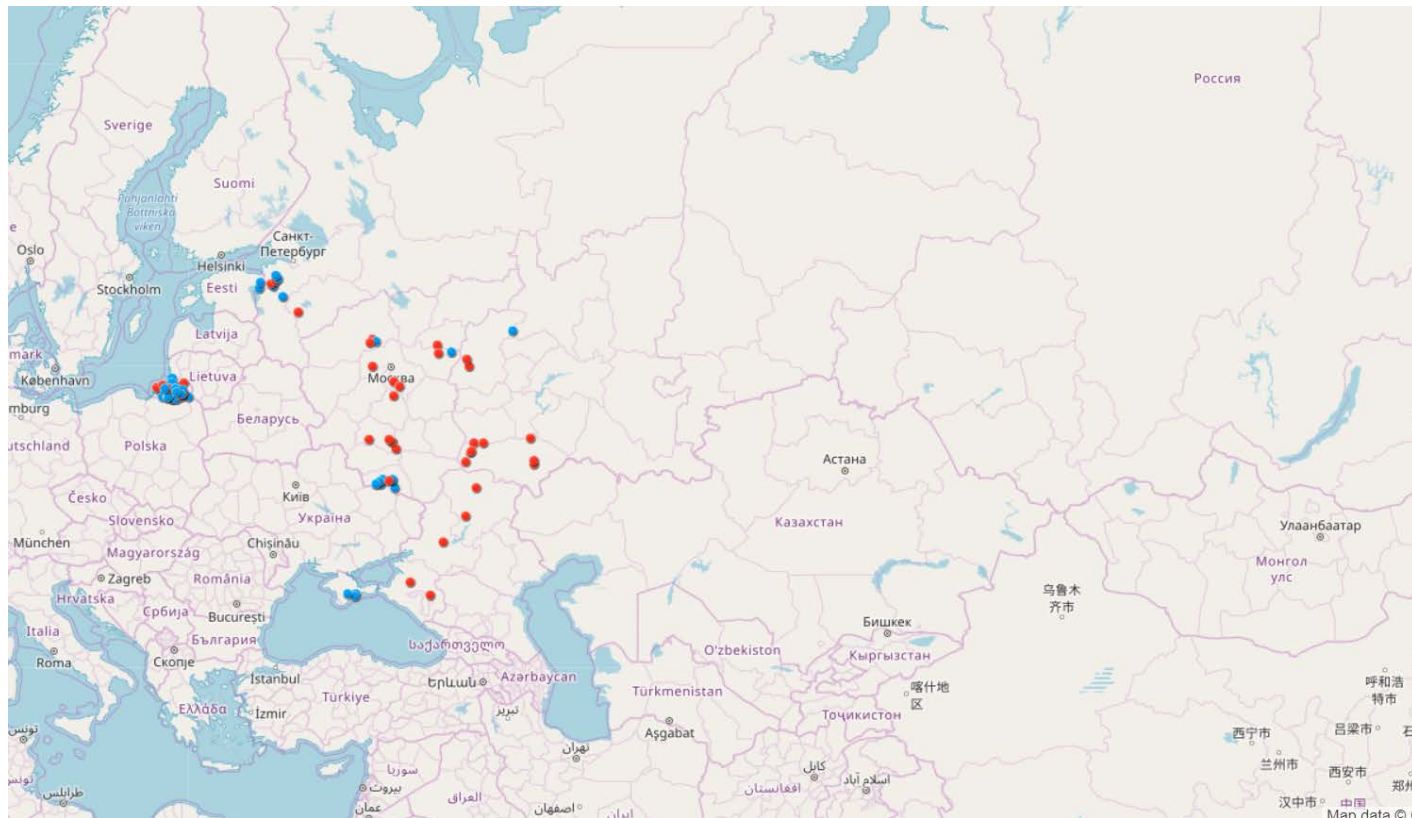
# ASF in Russia

2017



# ASF in Russia

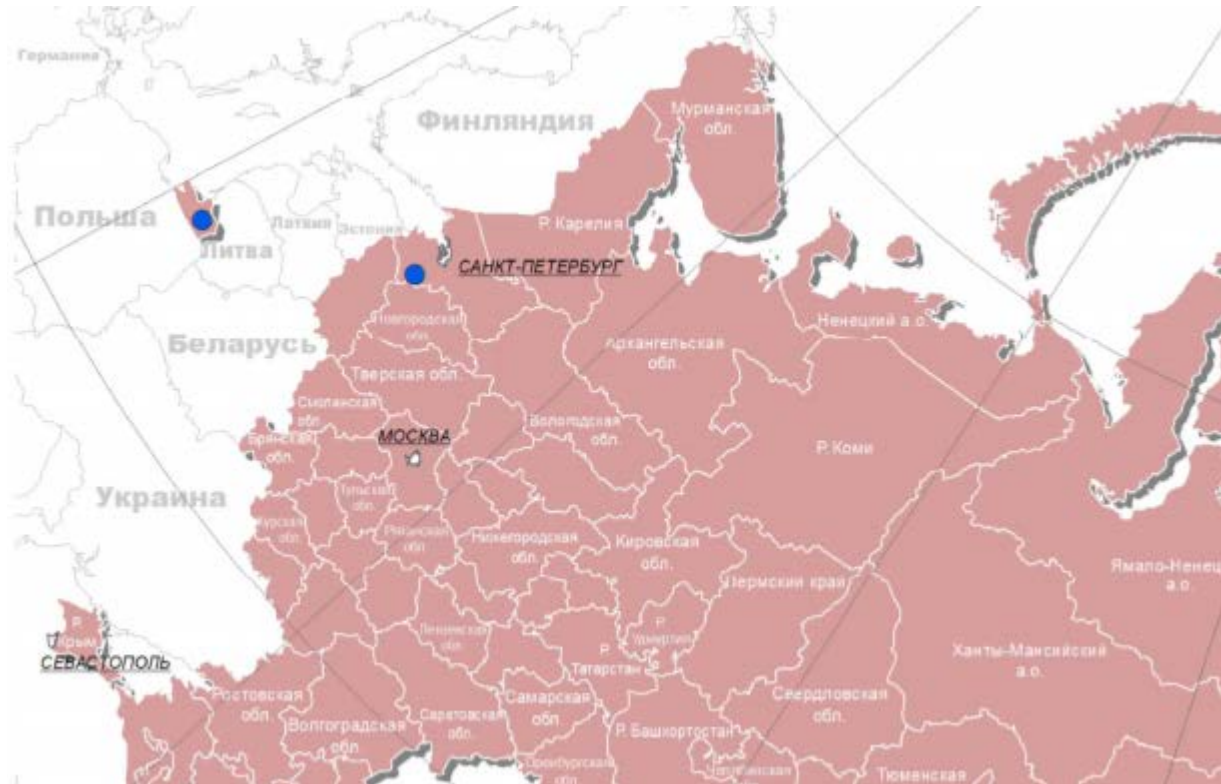
2018





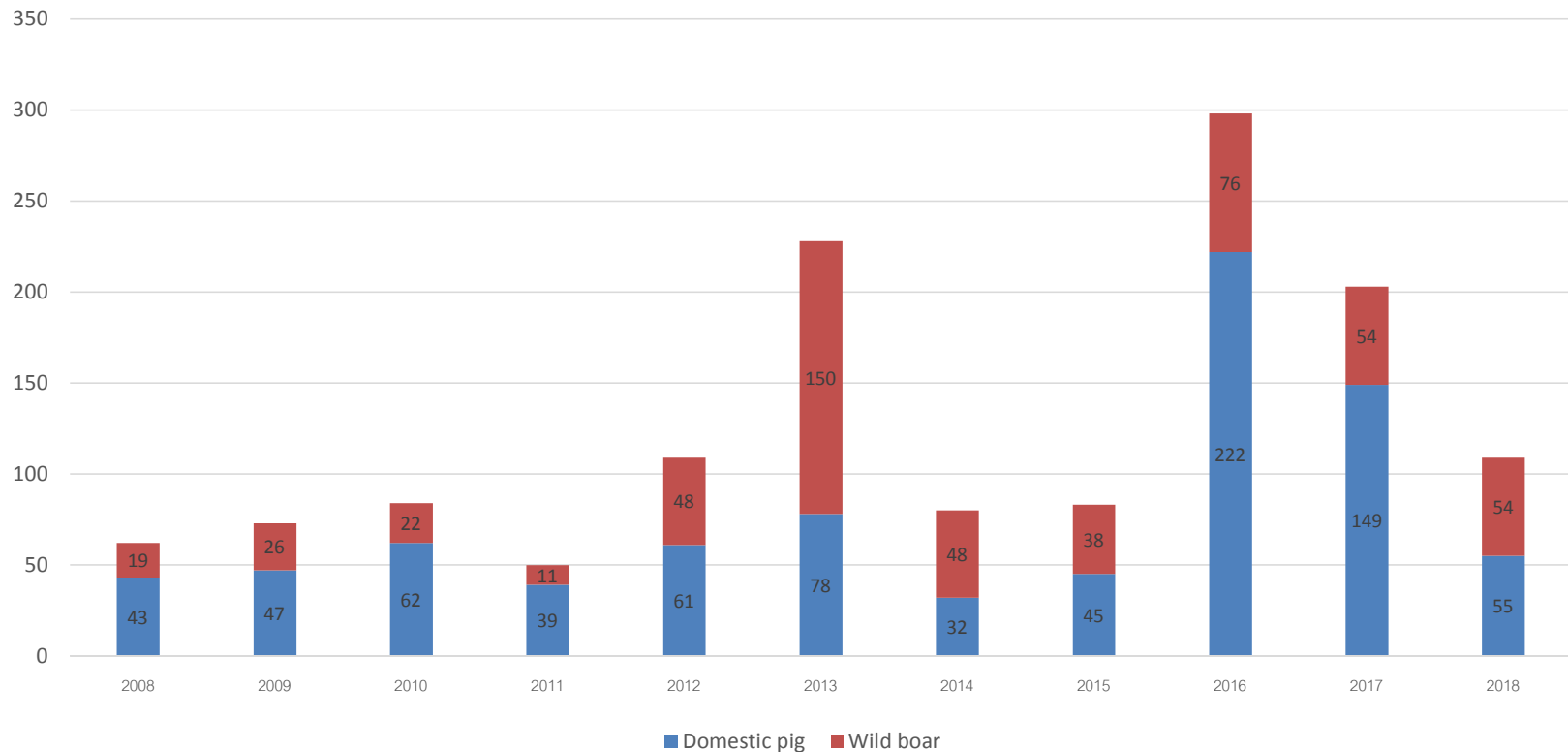
# ASF in Russia Today

2019



# ASF in Russia

2008-2019



A photograph of a piglet standing on a slatted floor in a nursery. The piglet is white with a pink snout and ears. It is looking down and to the right. In the background, other piglets are visible, some lying down and some standing. The floor is made of light-colored slats. The lighting is bright, and the overall tone is clean and professional.

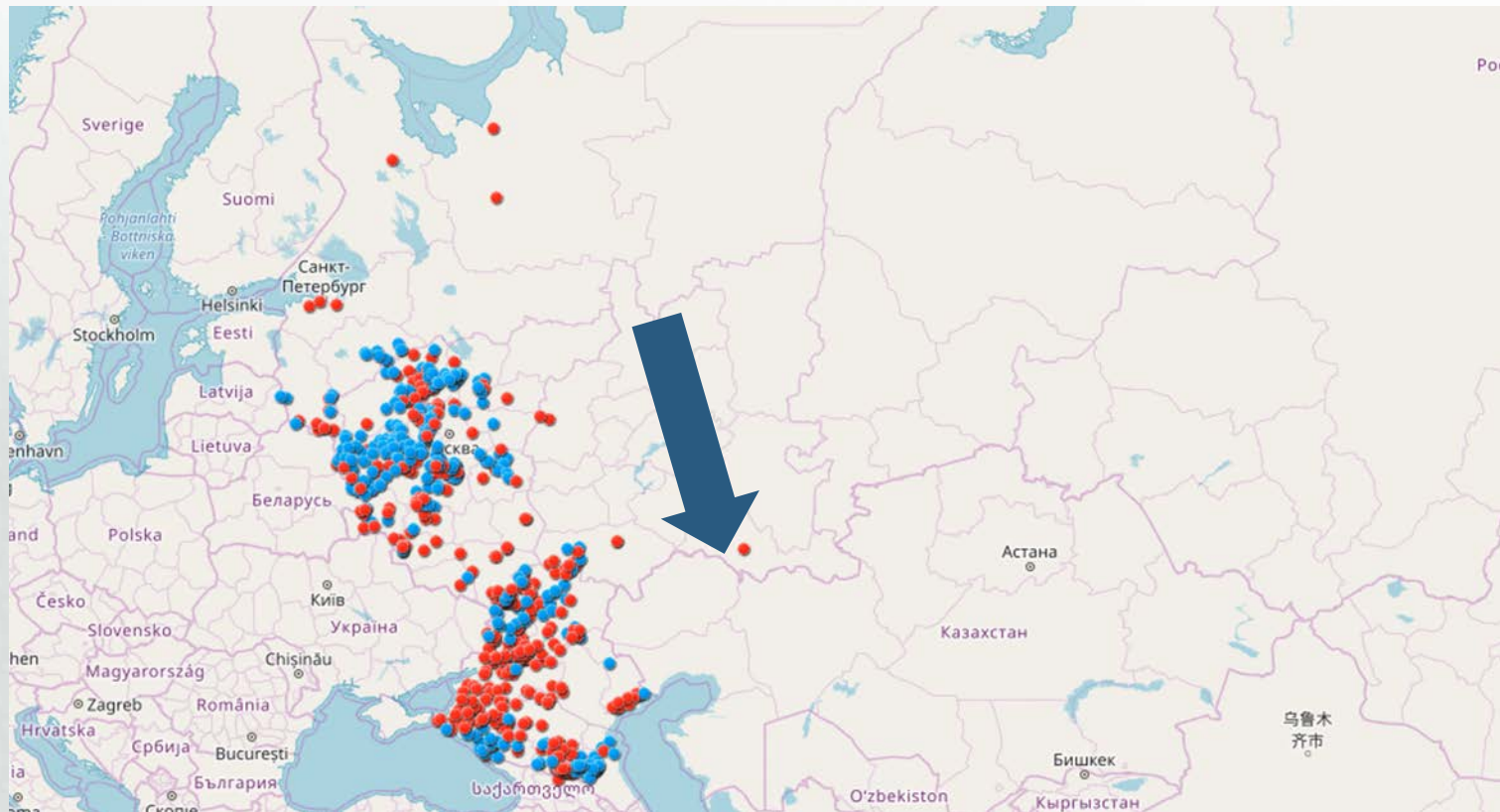
# ASF Stamping OUT program

## Case 1

Successful



# Oremburg, Russia



# Village Chernorechie , Orenburg region

24.07.2008



# Backyard

Msr Osaypin found first dead pigs 22.07.2008





# Different services act in outbreak

Government vet, Police, The main head or region



## Sing ASF quarantine in all road close to the farm

24.07.2008





# Do special control point for all transport at entrance to the village and outbreak area

24.07.2008





## Do barrier around outbreak area

Close all road to farm



# Training for village people. Tell them that is it ASF and that we need to do in quarantine area

24.07.2008



## Backyard Msr Osaypin

There was fair all wooded and all organic





# All pigs (127) in the village was bayed by government and euthanatized

25-26.07.2008



# Dead pigs was put to deep pit and use lime for disinfection

25.07.2008



# Cut stomach before burn

26.07.2008





## Disinfection backyard facility

25.07.2008





## Take out all manure from all villages backyard

26-28.08.2008



# Daily disinfection of intra - village roads,

Calcium hypochlorite solution 1 L - for 1 m<sup>2</sup>



## Burning farm (53 pigs) close village





# Cleaning of farm walls and removal of soil in the farm

3-10.07.2008





## Final disinfection 14-16.08.2008

2 kg lime per 1 square meter, and later water 10 l per 1 square meter



## Final disinfection 14-16.08.2008

2 kg lime per 1 square meter, and later water 10 l per 1 square meter



# Disinfection point at region border

Kazakhstan border

Since 31.08.2018





# Disinfection point at region border

Kazakhstan border

Since 31.08.2018



# Control in airport

Since 31.08.2018



A photograph of a small, pink piglet standing on a slatted floor in a farm setting. The piglet is facing right, and its body is slightly angled towards the camera. In the background, other piglets are visible, though they are out of focus. The floor is made of light-colored, rectangular slats. The overall lighting is bright and even.

# ASF Stamping OUT program

## Case 2

Small pig farm



## Clinical sing in finisher room



# Start euthanasia pigs

In infected room





# Pigs are going to truck

13.08.2012





# Euthanasia pigs

Poison injection in truck



# Euthanasia pigs

Poison injection in truck



# Preparation of a pit for burring

10.08.2012





## Delivery dead pigs



## Cut stomach before burn



## Preparation of pigs for incineration





# Preparation of pigs for incineration

Lime disinfection



25.08.2018



## Detect and sing outbreak





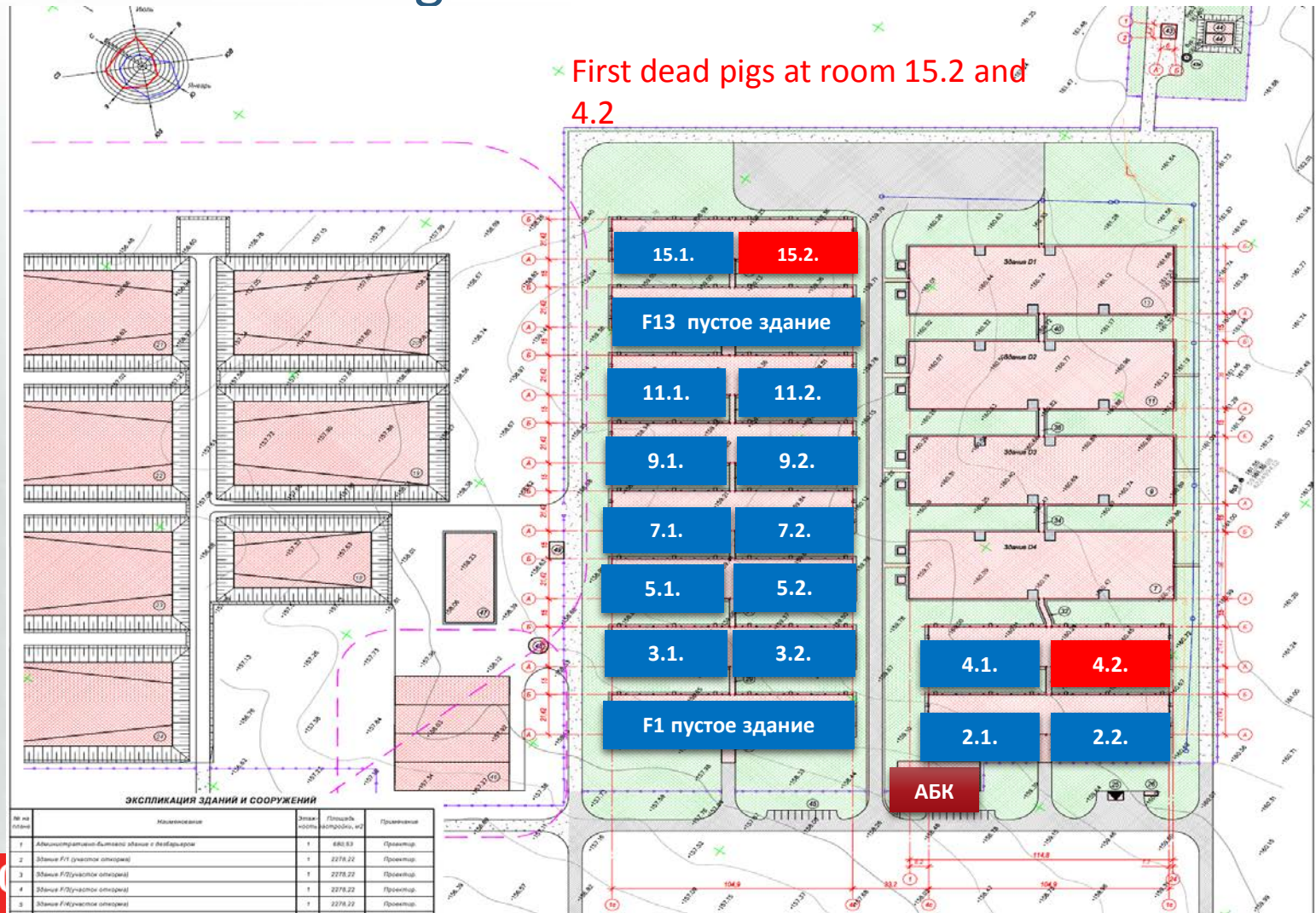
A piglet is shown in profile, standing on a light-colored, slatted floor. The piglet is white with a pink snout and ears. In the background, other piglets are visible, some resting on a green mat. The scene is brightly lit, suggesting an indoor farm environment.

# ASF Stamping OUT program

## Case 3

New modern farm

# Outbreak at 22 august 2016





21-23.08.2016





21-23.08.2016



## First dead pigs were are burn as follows

24.08-04.09.2016



# Burn first dead pigs

24.08-04.09.2016





# After every delivery dead pigs to burn point all transport was disinfect

24.08-04.09.2016



## Start use lime for all road around farm

From 25.08.2016



## Start to build loading ramp at room 15/2 and 4/2

25.05.2016





# Start to do photo all dead pigs

27.08.2016



# Start to do photo all dead pigs

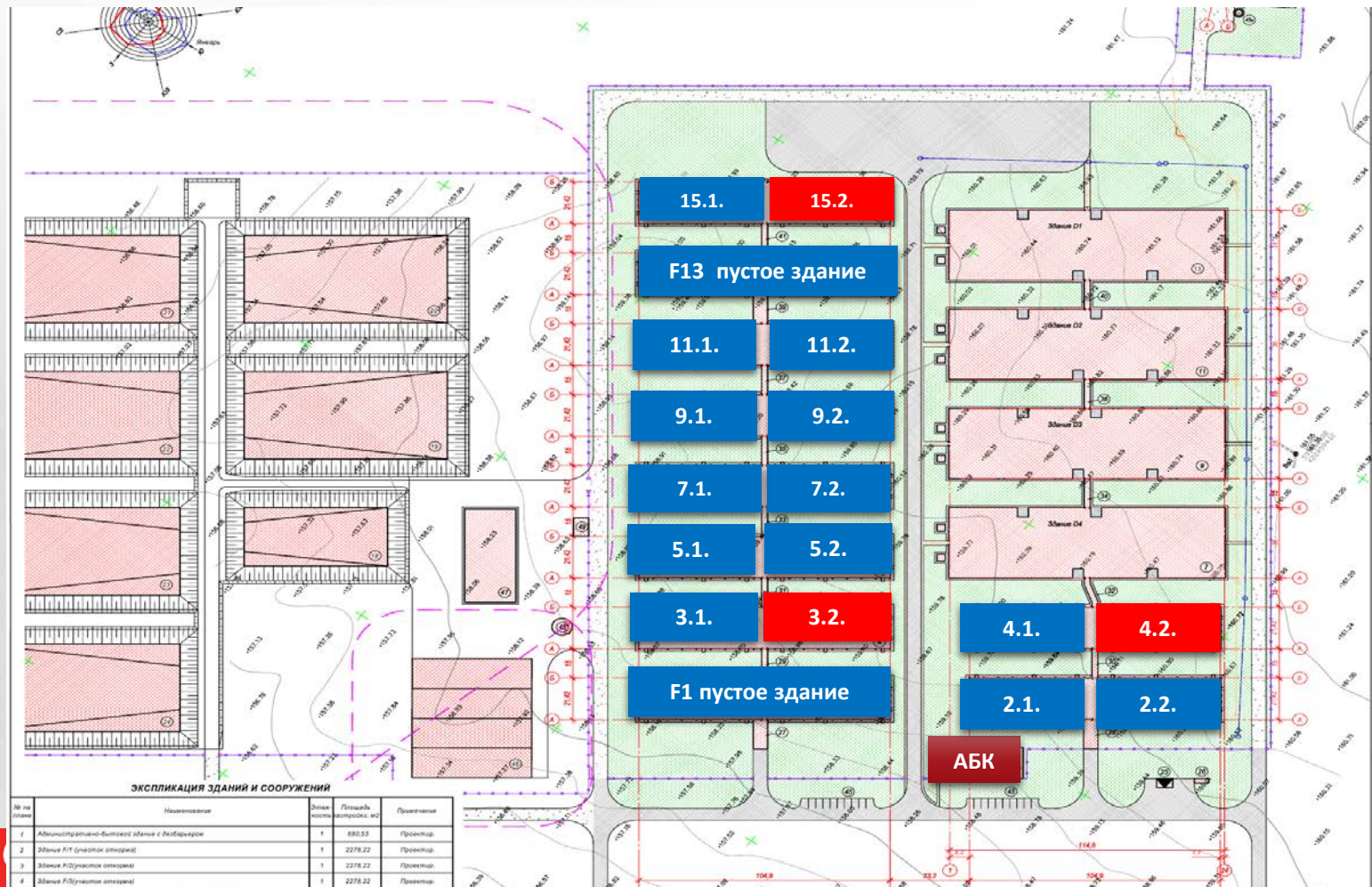
27.08.2016





# Dead pigs at room 3/2

29/08/2016



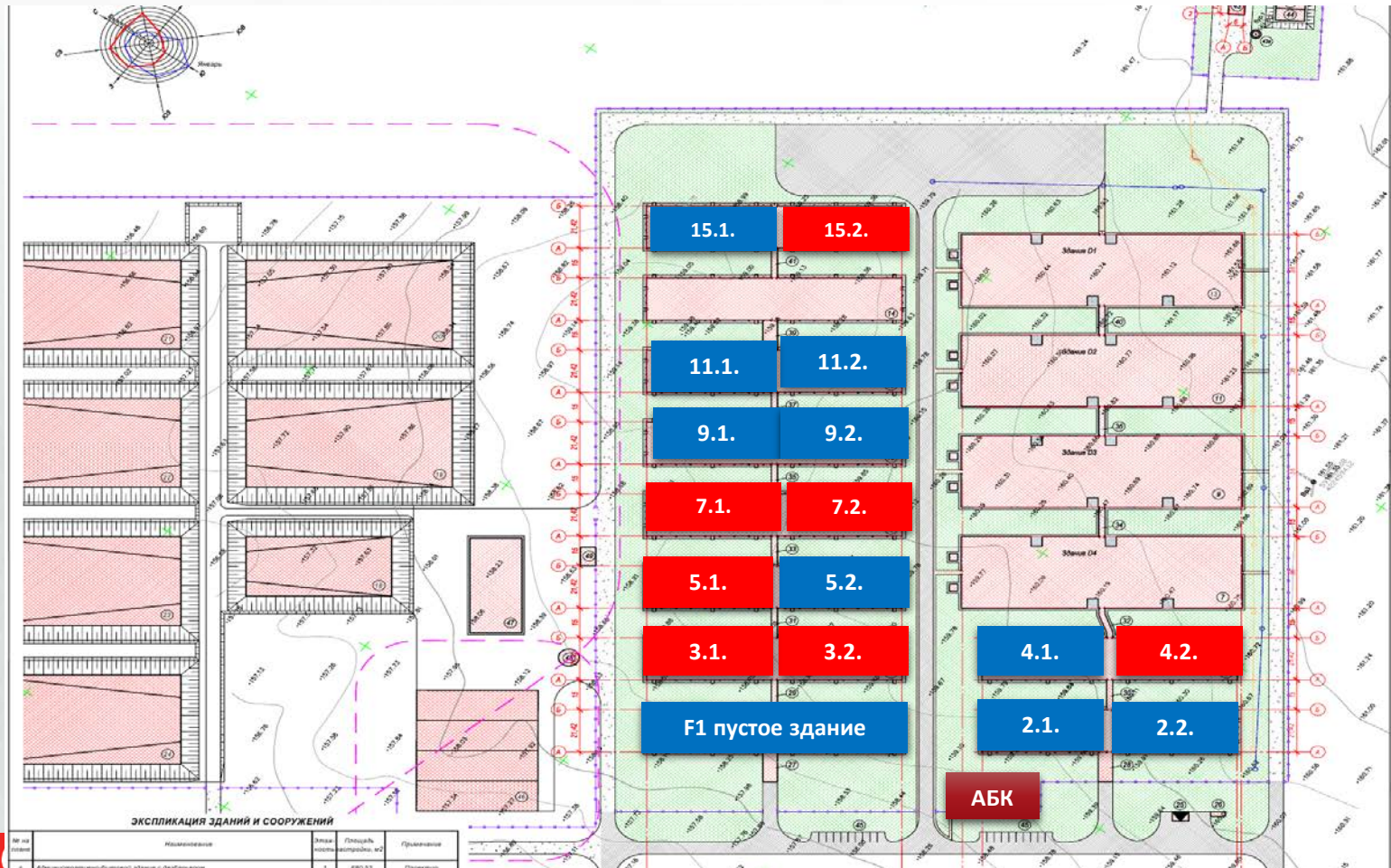


# Some dead pigs in room 7/1

30/08/2016



01/09/2016 new dead pigs at room 7/1, 7/2, 5/1, 3/1





## Build loading rump at room 5

3.09.2016





# Killing pigs with injection poison (bloodless method)

06-08.09.2016



# Loading dead pigs into truck

06-08.09.2016





## Put dead pigs at burn pit

06-08.09.2016





## There are one from 4 pit

6-8.09.2016



# Put lime to empty room

From 06/09/2016



09.09.2016





# ASF Timing

## **During 15 days - conformation ASF outbreak**

22/08-05/09/2016

Dead 616 pigs

## **During 3 days – Stamping Out**

06-08/09/2016

euthanized 17121 pigs

# Staff leave outbreak

After 09.09.2016



# Start use hot mist machine for office and shower room

From 10.09.2016





# Start use hot mist machine for office and shower room

From 10.09.2016



# Take out ground that are contact with dead pigs

12-13.09.2016





# Take out ground that are contact with dead pigs

12-13.09.2016





# Put lime to manure lagoon

13.09.2016



# Burn all temporary beds, clothes used in the elimination work

13.09.2016



# Burn all temporary beds, clothes used in the elimination work

13.09.2016





# Put Lime to place with burn pit, build fence around burn place

5-1.10.2016



## Put lime to all farm territory

18.10.2016



## Put lime to all farm territory

18.10.2016





# Start reaper work in all farm

19.10.2016



# Start washing and disinfection at farm

25.12.2016



There was introduce 3970 pigs for bioassay

12.02.2017





## How much is it cost

Estimated cost of an ASF eradication program 20 000 finisher site

	Thousands of Dollars
Payment for people work	86,9
Material for burn	92,3
Transport	31,2
Veterinary cost	173,8
Payment for pigs in back yard in 1 zone outbreak	81,5
Liquidation activities	465,8
Cost of euthanized pig	1607,7
Total cost eradication	2073,5
Repair cost	601,4
<b>Final COST</b>	<b>2674,9</b>
Insurance	1275,4
<b>Total loss</b>	<b>1399,5</b>



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# ASF Stamping-Out in Modern Farm

Main stages

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**Rules of 21.05.2016 No. 213 On the approval of veterinary rules for the implementation of preventive, diagnostic, restrictive and other measures, the establishment and abolition of quarantine and other restrictions aimed at preventing the spread and elimination of ASF**

New low

❖ **Preventive actions** (comply with veterinary regulations, prevent pollution, provide pigs for inspection, inform about the case, isolation of corpses)

❖ **Activities for suspected ASF** (report the disease of pigs (24 hours), assist in carrying out activities, isolate suspects in the disease)

❖ **Diagnosis** (sampling for diagnostic studies should be carried out in accordance with clause 16.1 of part 5)

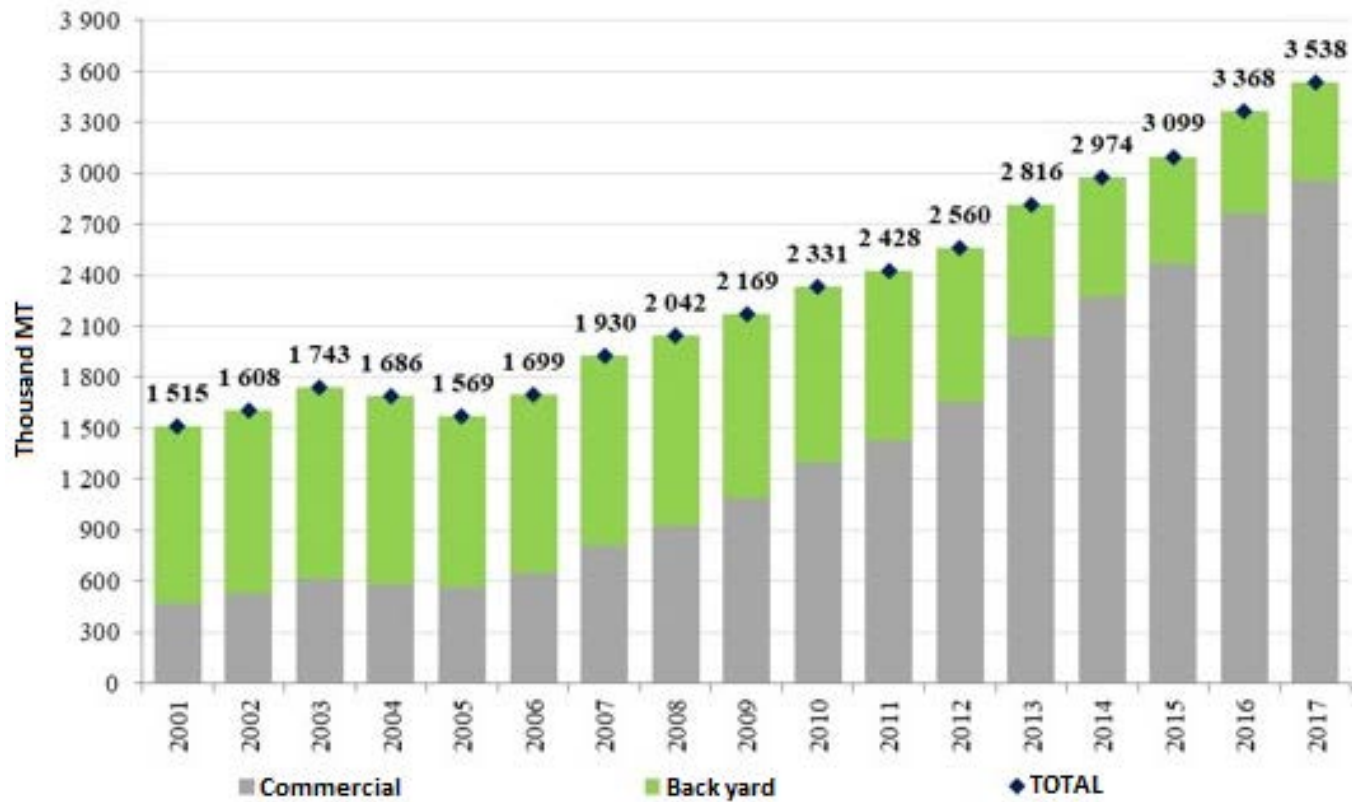
**Establishment of quarantine, restrictive and other measures aimed at eliminating ASF, as well as preventing the spread of ASF** (to do plan eradication)

❖ **Cancel quarantine and subsequent restrictions**



# Pork Production in Russia

2001-2017 (Dead Weight)



## ASF at the modern farm

Data	Region	Name farm	Number pig
07/ 2012	Krasnadar		16600
06/ 2013	Tver		4500+35000
07/ 2014	Pskov		23 000
12/ 2014	Orel		26 000
12/ 2014	Voronezh		8 000
09/ 2016	lipezk		16 000
08/ 2017	Krasnodar		4 500
09/ 2017	Belgorod		17 000
07/ 2018	Novgorod		46 000
07/2018	Belgorod		12 500
07/ 2018	Kaliningrad		100 000
09/ 2018	Lipeck		4 000

# Main Stage ASF Stamping Out Program

- Early detection (clinical sing, sampling and sent to lab)
- Stop any pig movement and staff movement in farm
- Laboratory result
- Conformation laboratory result
- Plan ASF eradication
- Preparation work
- Euthanasia all pig
- Burning dead and burying
- Cleaning and disinfection
- Bioassay
- Final disinfection



# Early detection

Main Stage ASF Stamping Out Program



# Early detection – Sampling

Main Stage ASF Stamping Out Program



# Stop any pig movement and staff movement in farm

Main Stage ASF Stamping Out Program

Stop pigs

Stop peoples

Stop transport





# Laboratory result and Conformation laboratory result

Main Stage ASF Stamping Out Program

- PCR test in Local laboratory – 6-10 hours
- PCR test in Pokrov national lab for conformation

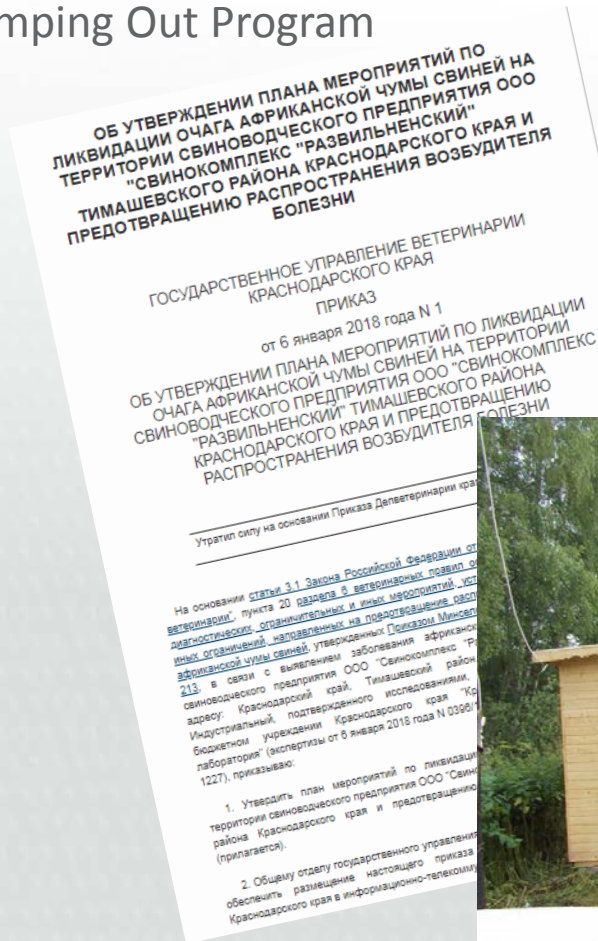
**ASF QURANTINE**



# Plan ASF eradication And Preparation work

## Main Stage ASF Stamping Out Program

- Quarantine
- Action Plane
- Terms of work
- Responsible



## Algorithm for organizing elimination ASF

Farm territory 1 (Dirty ASF zone)	Place for burn pigs 2 (clean zone , outside farm)	3 Clean area
A) equipment for moving pigs - length 2m, width 1m with ampoule storage for injection	A) strong line of clean and dirty area	A) posting on duty around outbreak all time
Б) make storage place outside farm close the door for transport for dead pigs	Б) delivery of flammable materials (tires, wood, diesel)	Б) to detect 1 (20 km) and 2 (100 km) ASF zone around outbreak
В) to do disinfection point at the enter to territory farm	В) collect the necessary equipment, machines and materials, and mark them only for work in the outbreak	В) work with people in villages close to farm
Г) to do weight point at the enter to territory farm	Г) digging holes and put the first layer of wheels and wood	Г) monitoring ASF at another farm close to outbreak
Д) to check and account all dead pigs leave farm	Д) installation of lighting, tents and other necessary equipment	Д) tracking and returning products shipped from an infected farm
Е) installation of video cameras	Е) installation of video cameras	Е) another prevention events
Ж) Disinfection	Ж) after the end of all preparatory measures, the clean zone (place for burn pigs outside farm) is transferred to the dirty one; entry and exit of transport and personnel not participating in the liquidation is prohibited	Ж) paperwork
И) do point for keeping dead pigs before burn them (if it nessasary)	И) all staff who work during eradication remain the entire period in this zone - they leave only after the completion of the entire eradication process in the prepared "clean zone" in "clean clothes" transferred from outside the quarantine zone	
К) the organization of food for persons participating in the elimination of the outbreak in the dirty zone is carried out in a disposable non-returnable container through the 1st des-barrier (sanitary inspection room). Delivery of food from the dezbarьер to the buildings on the trolley. Physical contact of people, materials, equipment in a clean area with a dirty one is excluded.		



Place for staff living

палатка

место  
выгрузки  
трупов  
unloading point  
for dead pigs

4

Burn pit  
230 m\*5m  
6 m deep

des. point

маршрут вывоза трупов

весовая

ДЕЗБАРЬЕР

ДЕЗБАРЬЕР

1 Desinfection point

place for killing pigs

2

МЕСТО  
УБОЯ  
СВИНЕЙ

Route for truck with dead  
pig to burn pit

5

3

Place for burn  
250m\*8m

Д - 230м  
Ш - 5м  
Г - 6м

МЕСТО СЖИГАНИЯ

Д - 250м

Г - 8м

ДЕЗБАРЬЕР

des. point

маршрут возврата  
пустой машины

clean car route for taking  
dead pigs

6

граница очага

Outbreak border

чистая дорога для подвоза материалов

Clean road for supply by materials

Road to village

60m

50m



# 1. Disinfection point at the enter at outbreak

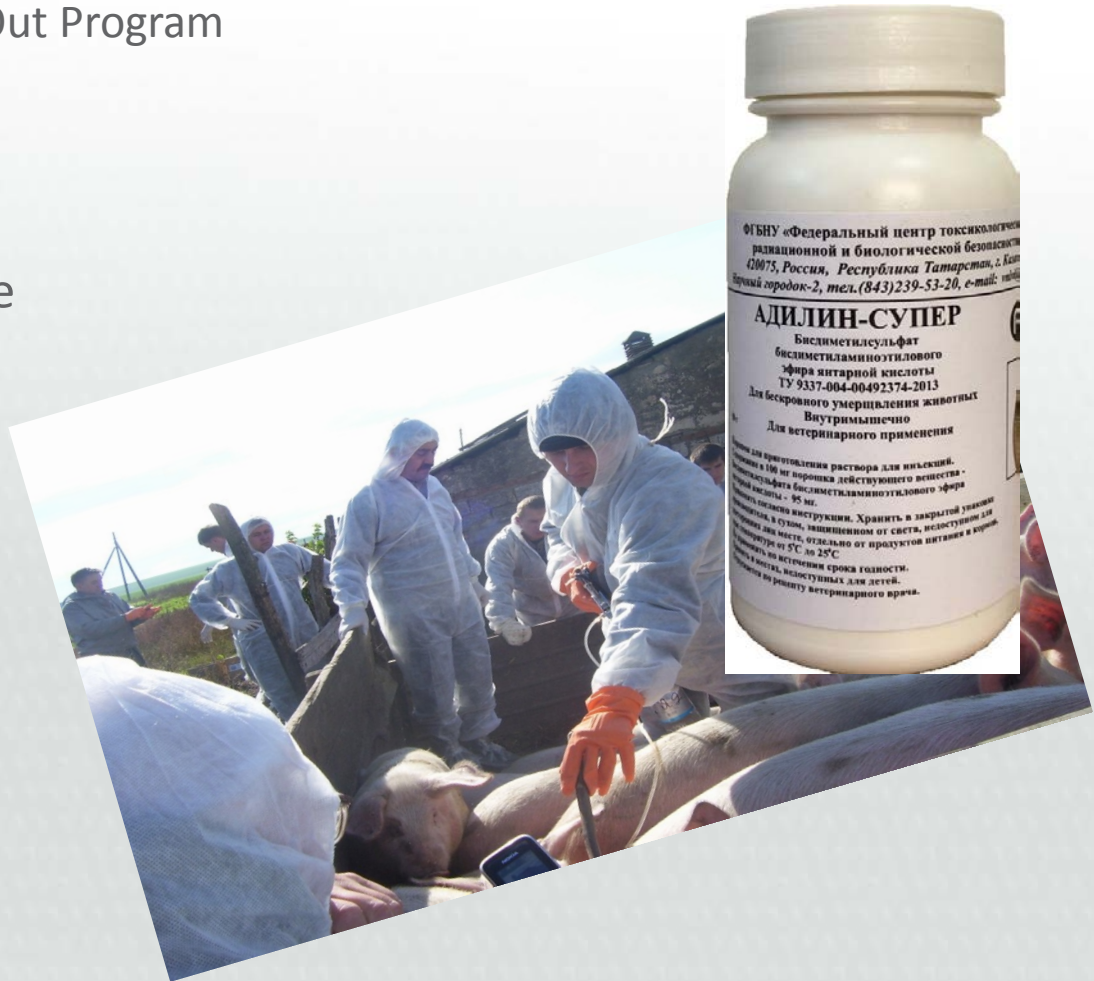
Main Stage ASF Stamping Out Program



# Euthanasia all pig

## Main Stage ASF Stamping Out Program

- Place for Euthanasia
- bloodless method
- poison paralyzing the respiratory system
- safety for personnel





Place for staff living

палатка

место  
выгрузки  
трупов  
unloading point  
for dead pigs

4

Burn pit  
230 m\*5m  
6 m deep

des. point

маршрут вывоза трупов

весоная

ДЕЗБАРЬЕР

ДЕЗБАРЬЕР

1 Desinfection point

place for killing pigs

2

МЕСТО  
УБОЯ  
СВИНЕЙ

Route for truck with dead  
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МЕСТО СЖИГАНИЯ

Д - 250м

Г - 8м

ДЕЗБАРЬЕР

des. point

маршрут возврата  
пустой машины

clean car route for taking  
dead pigs

6

граница очага

Outbreak border

чистая дорога для подвоза материалов

Clean road for supply by materials

60m

50m

## 2. Place for Euthanasia pigs

Main Stage ASF Stamping Out Program





## 2. Place for Euthanasia pigs

Main Stage ASF Stamping Out Program





# Burning dead and burying

Main Stage ASF Stamping Out Program

- Close to farm
- As much as necessary
- Short transport way



Place for staff living

палатка

место  
выгрузки  
трупов  
unloading point  
for dead pigs

4

Burn pit  
230 m\*5m  
6 m deep

des. point

маршрут вывоза трупов

весовая

ДЕЗБАРЬЕР

1 Desinfection point

place for killing pigs

2

МЕСТО  
УКОЯ  
СВИНЕЙ

Route for truck with dead  
pig to burn pit

5

3

Place for burn  
250m\*8m

Д - 230м  
Ш - 5м  
Г - 6м

МЕСТО СЖИГАНИЯ

Д - 250м

Г - 8м

ДЕЗБАРЬЕР

des. point

маршрут возврата  
пустой машины

clean car route for taking  
dead pigs

6

граница очага

Outbreak border

чистая дорога для подвоза материалов

Clean road for supply by materials

Road to village

60m

50m



### 3. Place for burn dead pigs 250\*8m

Main Stage ASF Stamping Out Program





### 3. Place for burn dead pigs 250\*8m

Main Stage ASF Stamping Out Program



### 3. Place for burn dead pigs 250\*8m

Main Stage ASF Stamping Out Program



## 4. Pit for disposal of residues after burning dead pigs

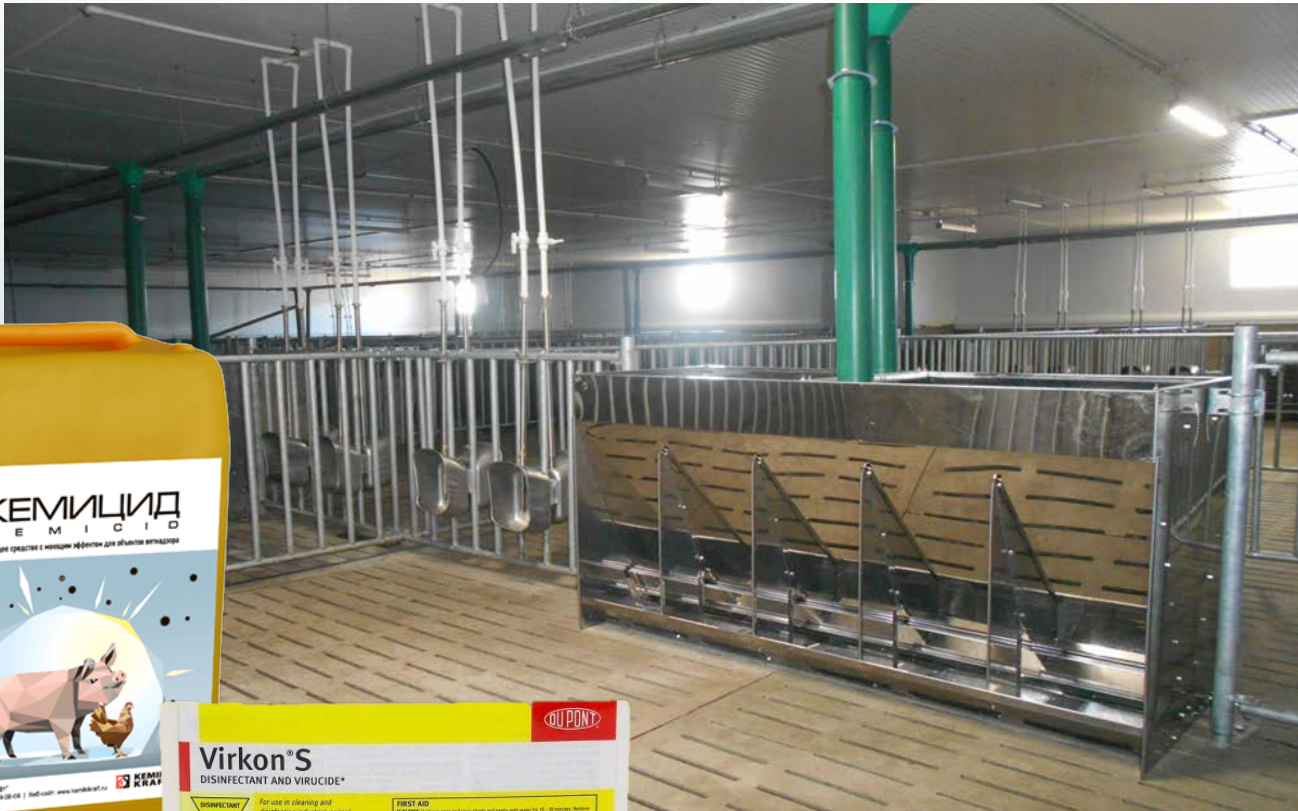
230\*6 m and Deep 6m





# Cleaning and disinfection

## Main Stage ASF Stamping Out Program



**PIC®**

# 5 and 6 Disinfection Road using for transport dead pigs to burn place

Main Stage ASF Stamping Out Program



# 5 and 6 Disinfection Road using for transport dead pigs to burn place

Main Stage ASF Stamping Out Program





# Put lime to burn place

Main Stage ASF Stamping Out Program



# Put lime to manure lagoon

Main Stage ASF Stamping Out Program





## Bioassay 8 month later

Main Stage ASF Stamping Out Program





# Final disinfection

Main Stage ASF Stamping Out Program



# Start Again

# Conclusions: Stamping OUT

Main Stage ASF Stamping Out Program

Detect ASF outbreak (48 hours)

Official Government Quarantine 30 days, signed by the head of the region

Preparation

Start euthanasia of pigs and transfer to the burial site for incineration

Disinfection all farm, around, road.

Quarantine 30 days

8 months before the first bioassay on the farm

2 bioassay and final disinfection

**You can start farming AGAIN**



 Never Stop Improving

Thank you

Main Stage ASF Stamping Out Program

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