

# GF-TADs

GLOBAL FRAMEWORK FOR THE  
PROGRESSIVE CONTROL OF  
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture  
Organization of the  
United Nations



## **Standing Group of Experts on African swine fever in the Baltic and Eastern Europe Region under the GF-TADs**

ASF in wild boar (management) and biosecurity  
measures during hunting

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# INDEX

Introduction to ASF

Epidemiology of ASF in wild boar populations

- I. ASF in Eurasia
- II. Environmental resistance
- III. Infection routes and involved mechanisms
- IV. Transmission chain in wild boar

# Wild boar biology and demography in the context of ASF

1. Changes in wild boar distribution
2. Can we measure wild boar numbers reliably?
3. How many wild boar are “too many”?
4. Why do wild boar populations increase everywhere in Europe?
5. How supplementary feeding affects populations of wild boar?
6. How supplementary feeding interferes with control of ASF?
7. Why hunters need to revise wild boar population management system?

# Wild boar management in ASF infected areas

- Can wild boar eradication be a solution?
- Is population control of wild boar a panacea for ASF eradication;
- Measures for wild boar management

## NON lethal methods

### *Movement restriction:*

Permanent boar-proof fencing

Electric fences

Other deterrent (olfactory, gustatory, visual, acoustic)

### *Contraception*

*Ban of wild boar hunting*

*Regulation of supplementary feeding*

## Lethal methods

- *Driven hunts*
- *Targeted hunting of reproductive females*
- *Trapping*
- *Increase of overall hunting pressure*
- *Wild boar poisoning*

# Managing risks of ASF in wild boar populations

Biosecurity in infected forests (hunters, mushrooms keepers etc.)

Carcass detection

Carcass disposal

## *General precautionary measures*

First detection

Precautionary measures

Burning on the spot

Burial

    trench burial on-site

    mass burial

Containers

# BIOSECURITY DURING HUNTING

## *Hunting ground biosecurity plan*

Wild boar transport modalities from hunting spot to dressing facilities;

Dressing room/area: requirement and equipment

Proper disposal of offal

Procedure to dispose ASFV positive wild boar;

Cleansing and disinfecting facilities

# COMMUNICATION

Effective communication between Veterinary Service and Hunters

Eradicate ASF

Why Vet services want stop ASF spread

What is the change Vet Services want to see as a result?

How do people exchange information?

Source of information

Message to hunters

Two-way communications

Create and maintain trust

Characteristics of a strong communications message to hunters

7C's of Veterinary communication (OIE, 2015)

Choosing communication channels

Which risk communications channels will help effectively reach hunters?

Rick communication and stigma

# DATA COLLECTION

Standardized age classes

Fertility

Standardized dating  
of carcasses

WILD BOAR N. \_\_\_\_\_

MUNICIPALITY \_\_\_\_\_

LOCALITY \_\_\_\_\_

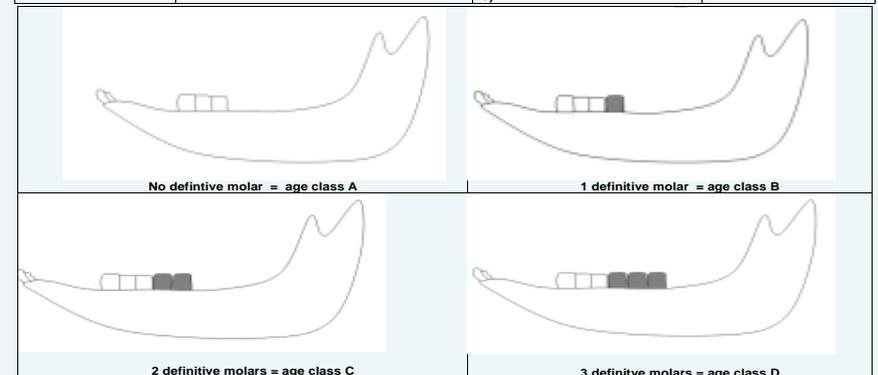
HUNTING GROUND \_\_\_\_\_

PERSON COLLECTING SAMPLES: \_\_\_\_\_

LATITUDE AND LONGITUDE \_\_\_\_\_

DATE: \_\_\_\_\_

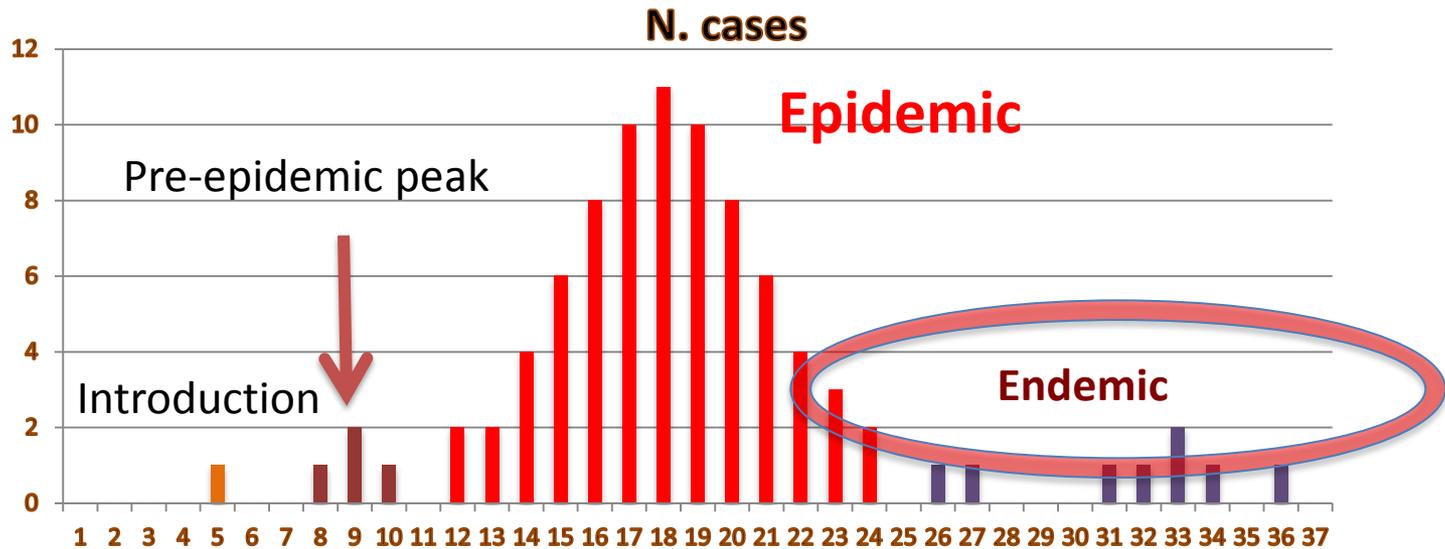
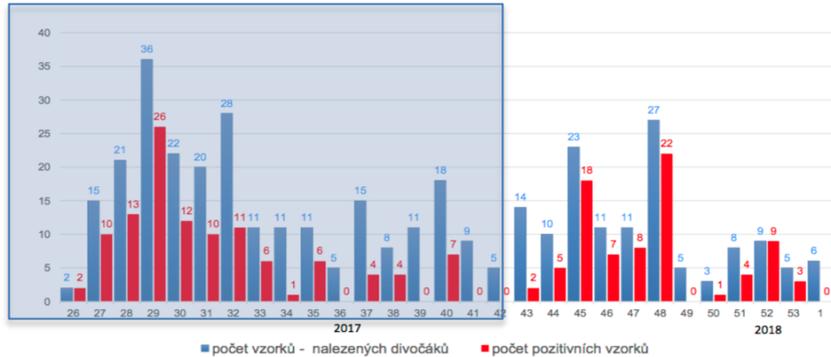
	Wild boar data	Gender	Sampled organs
N. laboratory _____	Driven hunts Single hunt from tower Single hunt by searching	Male	
	Found dead Shot healthy Shot abnormal behavior	Female Pregnant N. Fetus _____	
N. hunted wild boar _____	Decomposition stage	1) 2) 3) 4) 5)	



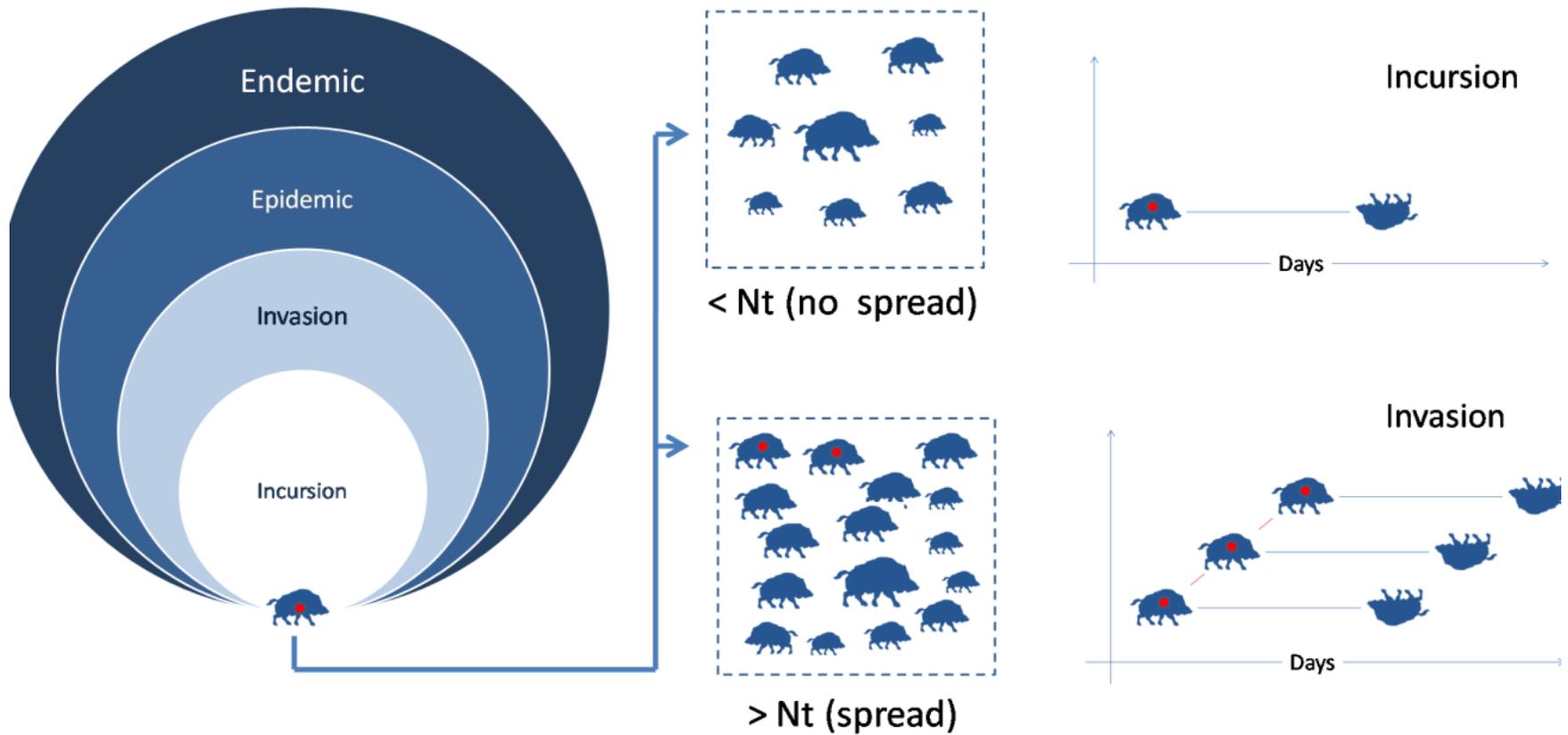
# Epidemiology does it help?

## Why it could help....

Weekly incidence in death wild boar

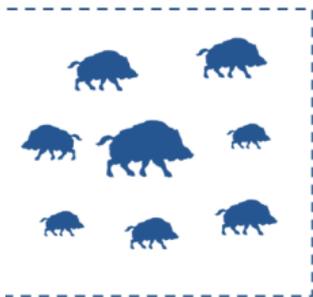


# Summarised

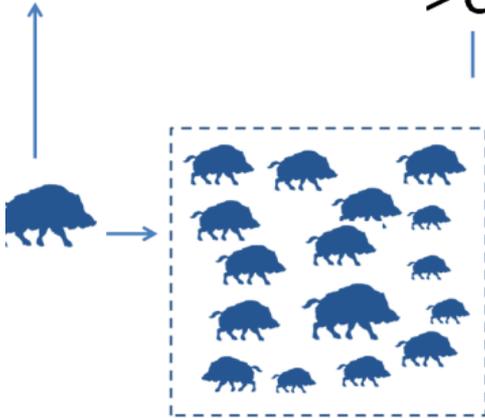
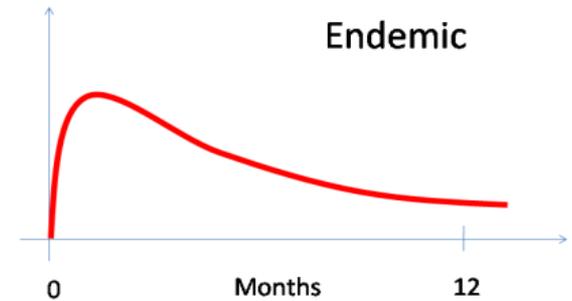
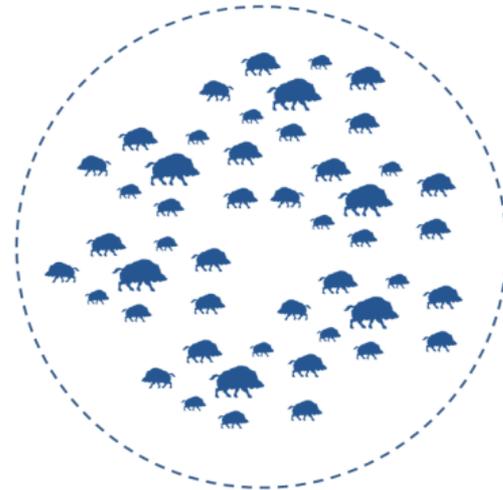


# When to hunt, when NOT hunt

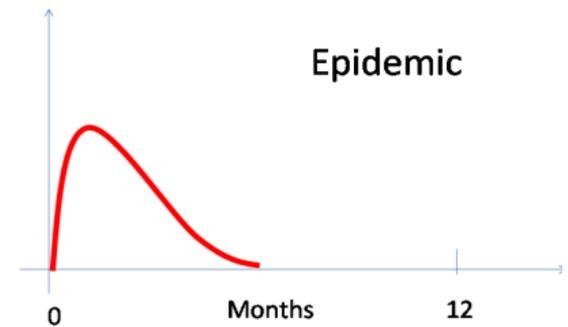
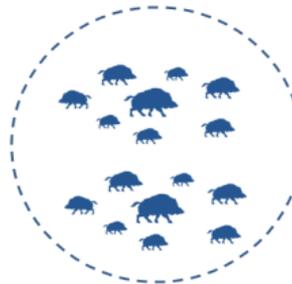
$< N_t$  (no spread)



$> CCS$



$< CCS$



$> N_t$  (spread)

# Poisoning

Any biocide aimed at poisoning wild boar in the natural environment should fulfil the following characteristics:

1. Species specificity: the biocide is active in the target species (or group of species) only without any secondary/accidental poisoning of non-target species (i.e. brown bear, wolf, birds etc.);
2. Availability of an effective antidote (for both humans and domestic animals);
3. Palatable and accepted by the target species;
4. Causing minimal pain and suffering (welfare) in target and non-target species;
5. Limited hazard for field operators;
6. Appropriate degradation in the environment (including ground and surface water, invertebrate biocenosis);
7. Legally allowed;
8. Reasonable cost;

- Warfarin and Phosphorus has been considered inhumane and thus abandoned; the environmental risk linked with 1080 (i.e. secondary poisoning of non target species) has been considered not acceptable.
- **Nitrites** are less dangerous and fulfil some of the above-described characteristics.
- However, any proposed biocide has still many negative aspects which solution is far to be reached.
  1. Poison is usually incorporated into baits; to avoid that non target species could ingest the baits a wild boar dedicated delivery device has to be used (see contraception section);
  2. The use of the bait delivering device in a forest inhabited by brown bear, bison, wolf, jackals etc. has never been tested;
  3. To reach a high proportion of wild boar, a large number of bait delivering devices has to be placed. Considering the usual wild boar family home range during a short period of life (i.e. 1 month), **1 delivering point each 300 ha should be foreseen. At present more than 200.000 km<sup>2</sup> are ASF in wild boar involved (EU ONLY)** and then a huge number of poisoned bait devices should be placed and thus increasing the probability to poison non target species, involuntary accidents, environmental contamination etc.;
  4. Other side effects such as the development of poison tolerance, possible persistence in the food web chain, accumulation in specific substrates, are all-difficult to properly predict and avoided.

## Considering the EU countries as example, the use of biocides is regulated by

**Regulation N. 528/2012** of the European Parliament and of the Council (22 May 2012) concerning the making available on the market and use of biocidal products

<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1518880295826&uri=CELEX:02012R0528-20140425>).

Articles 17, 18, 19 are of interest.

The current legislation poses several restrictions to the use of any biocide outside its authorised purposes and means of distributions. **Despite derogations could be obtained (art. 55), it is very difficult (if and when possible) to minimize all the risks posed by the intensive use of biocides in a large wild areas.**

Apart from the ethical dimension, which itself is of extreme significance, a specific plan should be designed underlining: motivation, absence of alternatives, feasibility, probability of success and risk factors linked to the operations.

**Any possible risk has to be clearly considered and minimized.**

At present it is impossible to design and thus assess the risks, of a large-scale wild boar poisoning program; the lack of data and experiences from the north European environment make the poisoning of wild boar an hazard which risks are largely unknown and most of them are very hard to evaluate and manage.

# The floor is for Sergei

- Main audience: hunters, veterinary services, wildlife managers, hunting managers etc.
- Handbook or what else?
- Too complicate...too trivial
- Geographical context
- Final solution or a comprehensive offer that each Country can use to tailor an ad hoc strategy
- Etc.....