Biosecurity in pig farm

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Just an example...

- High biosecurity level farm
- ~19 000 pigs (closed cycle)
- Double fenced
- Video security cameras
- Disinfection at entrance
- Security control at entrance

Is this enough???
Just an example…

Farm was affected by ASF in July 2014

~ 19 000 pigs killed

Economical losses

Source of infection and pathways unknown…
Concept of biosecurity

**Biosecurity:** security from exposure to harmful biological agents

**Biosecurity:** complex of measures taken to reduce the risk of introduction and spread of diseases on herd

**Biosecurity:** The prevention of disease causing agents entering or leaving any place where farm animals are present

**Biosecurity** is a “philosophy”, it must be developed by producers

**Biosecurity** must become as lifestyle to guaranty success!
Is risk the same?

- Closed commercial farms
- Backyard (non-professional) farms
- Free range farms

Risk
Biosecurity in commercial farms

EXTERNAL BIOSECURITY – reduce disease introduction;
includes:
  Fencing
  Buying-in policy
  Loading / unloading areas
  Isolation – Quarantine
  Movement restrictions
  Cleansing and disinfection procedures
  (people, equipment, vehicles)
  Transport - records
  Visitors - records
  Collaboration partners / suppliers
  Training program
  Awareness

INTERNAL BIOSECURITY – reduce disease spread;
includes:
  Isolation of animals
  Grouping of animals, health
  Grouping of animals - category and age
  Removal of dead animals
  Control of rodents and insects
  Disease recording
  Production recording
  Cleansing and disinfection procedures
  Training program
  Awareness
  ......
Biosecurity plan – where to start from?

General information on farm:

Geographical information
Production system
Movement of animals
Movement of people
Animal health records
Location and layout of the farm
Biosecurity plan – where to start from? (2)

Dirty and clean areas / zones
Facilities at farm for the use of staff
Carcass management
Insect and rodent control program
Training program for staff
Information about service providers
Documentation of measures
Definition of persons in charge...
Self control system – random checks
Farm lay-out (example)

- Access to the farm for different purposes
- Clean and dirty roads, areas
- Identification of activities, movements
Content of the biosecurity plan

1. External biosecurity

- Demarcation of the farm and farm territory
  - zones with different risk;
  - unauthorized persons, transport;
  - wild animals, birds, rodents....

- Control of entering animals, semen, ova and embryos
  - heath certificates, guaranties;
  - quarantine, lab tests before movement.
Protection from wildlife and rodents
Introduction of animals

Any introduction of new animals presents high risk to the farm!!!

How to reduce the risk?

Careful evaluation of the health status of suppliers / partners;
Number of suppliers – as low as possible;
Vehicles used for movement of animals (owned, rented....)
Cleaning and disinfection of loading / unloading areas
Quarantine
Loading area
Content of the biosecurity plan (2)

Control of visitor movement:
- maximum restricted (.....piglet trade...);
- requirements for visitors (declaration on no farm / hunting visiting for at least 48-72 hours);
- register of visitors (journal);
- entering rules (disinfection mat, change of clothes, boots, shower, disinfection, hygiene).

Control of vehicles:
- restrictions for transport entering farm territory;
- requirements for vehicles (disinfection barrier);
- definition of internal vehicles;
- drivers....??!!
Cleaning and disinfection of vehicles
Content of the biosecurity plan (3)

Employers:
- **contract** *(detailed as possible)*
- **regular training!**
- sanitary point, disinfection
- change of clothes and boots
- respect clean and dirty zones
- specific requirements *(cannot visit other farms or keep pigs, hunting, food from home?!)*

Control of rodents and insects
Content of the biosecurity plan (4)
Facilities for the change of footwear and clothes

Shower

Dirty area
Changing Area
Clean area

Food safety
Dirty and clean areas in practice
Content of the biosecurity plan (5)

**Animal feed and water**
- trusted establishments;
- no water from rivers, lakes...
- laboratory analysis (regular).

**Collection of dead animals**
- storage place (container);
- collection truck does not enter the farm territory, does not cross the internal clean roads.
Safe collection of carcasses (example)
Content of the biosecurity plan (5)

2. Internal biosecurity

- Principle – «all in – all out»
- Cleaning and disinfection:
  - pens, corridors, storage rooms, feed towers
  - equipment and tools
- Dead animal collection, storage (where?)
- Restricted movement for animals and employees within a farm
- Waste hygiene
Dead animal collection
How to apply biosecurity in free range farms?

*Basic principles (considering the risk):*

- Physical isolation - fencing, roof, nets ...
- Indoor keeping only (pigs in ASF affected/ at risk areas)
Biosecurity in backyard farms

Basic minimum biosecurity rules:

No swill feeding
No contact between the pigs on the farm and wild animals (indoor keeping)
The owner/keeper change clothes entering the stable and leaving the stable

Is that enough?
Biosecurity in backyard farms

Simple but effective biosecurity rules

Balance: Investment & biosecurity
Example: Biosecurity requirements for backyard pig farms

Based on:
ASF Strategy for Eastern Part of the EU (SANTE/7113/2015-Rev 9)

Main biosecurity requirements:
- Only indoor keeping – no direct contact with wild boar
- Specific clothes / boots for the use only in a farm
- No swill feeding
- No fresh grass feeding
- Straw for bedding allowed only for at least 90 days after harvesting
- Regular cleaning, disinfection, rodent & insect control
- Disinfection pad at the entrance of farm
- No entrance for unauthorized persons
- Water resistant container for dead animals
- Protective clothing and boots for visitors
- Registration of visitors
- Home slaughtering only under veterinary supervision.
UZMANĪBU

KAS JĀJEVĒRO, LAI PASARGĀTU ĶŪKU NOVIETNI NO ĀFRIKAS ĶŪKU MĒRĀ (ĀCM) UN CĪTĀM ĶŪKU INFEKCIJAS SLIMĪBĀM

1. Lai novērstu ķūku sakarā ar savvaļas un klaipēdošu dzīvniekiem, ķūkas nedrīkst turēt āra aplokos!
2. Nelietojiet pakaļnos, ja ir aizdomas, ka tiem varētu būt pieļūvā savvaļas dzīvnieki!
3. Ķūku novietnē drīkst ielej tikai ķūku īpašnieks vai persona, kura kopj cūkas!
4. Cūku novietnē drīkst izmantot tikai triumfāciju.
5. Pie ieejas novietnē jānovieto dezopaklāji!
6. Cūkām nedrīkst izbarot jebkādu dārzeņu vai zālēdu no lauka, kuru iespējams apmeklēt vienīgi cūkas!
7. Saknaugus un graudus vēlams termiski apstrādāt!
8. Šeit jāietiec cūku veselības stāvoklim un, ja cūkas izskatās neveselas, nekavējoties iesaistīties veterinārā rīkojumu!
Biosecurity in commercial farms (EE)
How to motivate farmers?

**BIOSECURITY:**

- Helps keep out exotic diseases
- Reduces the risk of zoonotic diseases
- Limits the occurrence and spread of diseases and helps to protect other farms
- Gives better production results (reproduction, growth, etc.)
- Improves overall herd health status
- Improves animal welfare
- Improves quality and safety of produced products
- Cuts costs of disease treatment and reduces losses, which could improve farm profitability.
Conclusions

Good biosecurity is the only way to keep disease away from farms.

Biosecurity shortcomings increase the risk of disease introduction in a farm.

Legal basis for biosecurity – very important!

Proper (daily) implementation – even more important!

Backyards and free range farms – at the highest risk!

Commercial farms – the highest economical losses..

Regular checks and consultation by official vets are needed – to get the trust of farmers and explain the importance of biosecurity measures.

REGULAR and repeated training and awareness campaigns are necessary!
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