

GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Disinfection. African Swine Fever (ASF)

Sixth meeting of the Standard Group of Experts on ASF in the Baltic and Eastern
Europe Region

Vilnius, Lithuania – 28-29 November 2016

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Definition



- Disinfection means and refers to destruction at outer environment or elimination of pathogenic and opportunistic microorganisms.
- A set of veterinary and sanitary measures is envisaged for this purpose.
- Disinfection is important among other measures aimed at control of ASF.

Disinfection Objective



The main purpose of these measures - to break the epizootic chain by acting on its most important link - the causative agent.

Where disinfection is carried out?



Checkpoints at the border;

Inside the outbreak of infection (backyard farms, small farms, commercial farms, slaughterhouses, farms, hunting grounds, etc.)

Threatened areas

Disinfection plan

The plan includes:

- The timing of disinfection;
- Disinfection methods and modes of production and support facilities, working clothes and footwear, vehicles, territory and other facilities
- The need in disinfectants, washing and disinfection equipment and human resources, based on the amount of work.

Decontamination Means



- Use tools and means which are approved by the EU legislation, national legislation of the countries.
- They should be effective
- When carrying out disinfection it is necessary to observe personal safety, safety rules when working with disinfection equipment, take into account protection of environment and other requirements.

Objects of Disinfection



- Territory of inside farms and adjacent areas,
- All located livestock, auxiliary and utility rooms, and other facilities and equipment available thereat,
- Vehicles used for transportation of animal feed, raw materials and products of animal origin,
- Equipment and animal care items, clothing and footwear of staff, manure and other objects that could be a factor in the transmission of ASF pathogen.

Disinfection

Preventive

- carried out in animal farms free of infectious diseases in order to prevent introduction and spread of pathogens therein

Forced

- Both current and final are carried out in farms, affected by ASF, in order to localize the primary site of infection, preventing pathogen accumulation in the environment and its distribution within the holding and beyond

Current Disinfection

- Performed immediately after the detection of ASF in the holding.
- Veterinary specialist determines the list of objects, frequency of disinfection of each of them, the procedure for mechanical cleaning and disinfection

Final Disinfection

- Held on the holding (farm), processing plant prior to lifting the quarantine.
- The purpose of the final disinfection is to complete destruction of infectious agents in the environment.

Other Activities

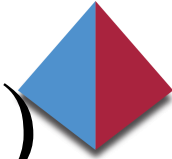
- Before the final disinfection exterminate rodents and insects, in the territory of holding (farms) and manure storage, protect livestock premises from wild birds, and removed stray dogs and cats from the territory of holdings (farms).

Disinfection of Holding (Farm)



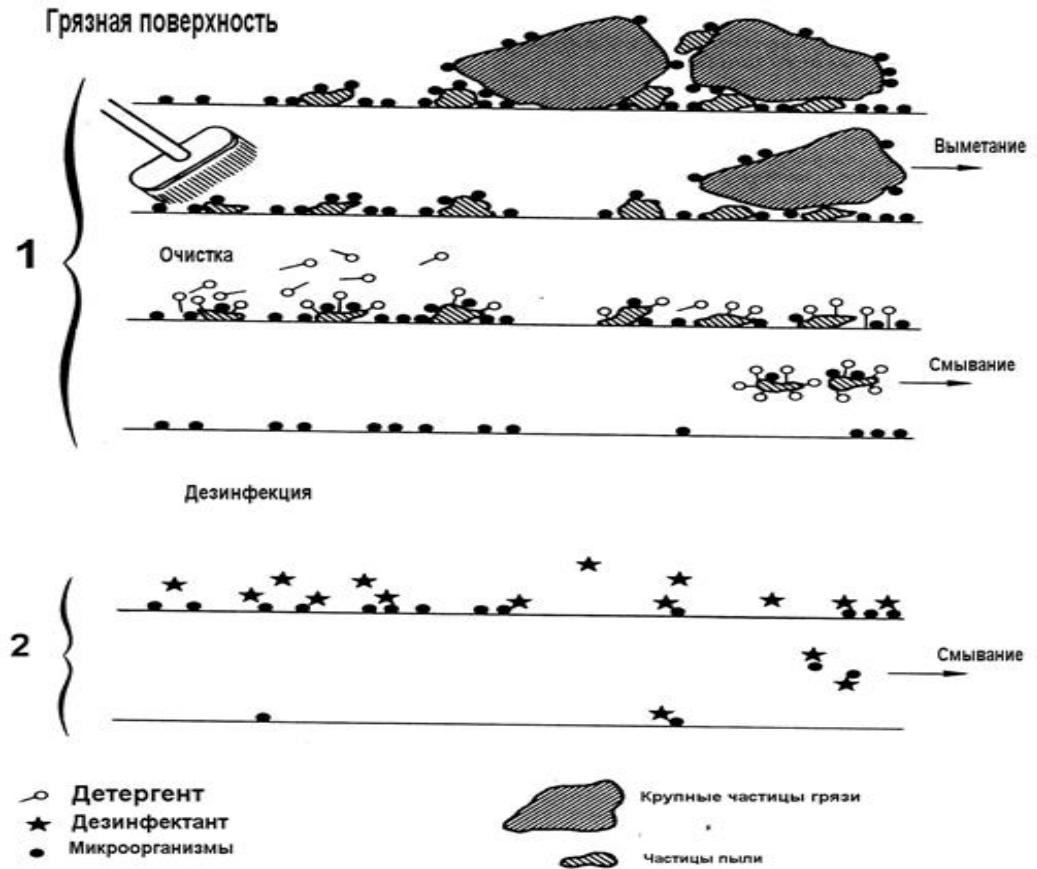
- Carry out the disinfection of livestock, household and auxiliary premises (inside and outside), located at the territory of epizootic outbreak; adjacent territory (free-range areas, roads); vehicles used for transportation of feed; manure, equipment, uniforms and other objects, which directly or indirectly contacted with staff or sick animals.

Disinfection of Holding (Farm)



- Disinfection consists of two series of operations:
a thorough mechanical cleaning and proper
disinfection

Mechanical Cleaning and Disinfection



Disinfection

I. Mechanical cleaning

Pre humidification

Dry cleaning of less contaminated surface (electrical units, lighting, certain types of equipment, etc.)

Removal of contaminated soil layers or wooden flooring.

II. Disinfection

- **The physical method (Fire)**
- **Boiling,**
- **Steam and formalin chamber**
- **Chemical (main method)**
- **Other**

Disinfection of Holding (Farm)



- Manure, animal excreta, feed remains, garbage, topsoil (if necessary) after spraying with a disinfectant solution is collected in a separate watertight containers and sent for disposal or decontamination.

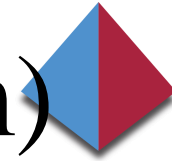
Disinfection of Holding (Farm)

- Premises, equipment, inventory and other objects are treated with solutions of chemical disinfectants by uniformly spraying surfaces until they are completely wet.
- Aerosols produced from solutions of disinfectants are used to sanitize enclosed spaces

Disinfection of Holding (Farm)

- Depending on the object and the degree of cleaning disinfectant solutions are prepared based on 0.3 - 0.5 l / m² of the total area for a single spraying.
- The veterinary expert responsible for carrying out disinfection solution can increase the flow rate.

Disinfection of Holding (Farm)



- In determining the total area the following is taken into account:
- Floor space, walls and ceilings; partitions, outer and inner surfaces of all elements of the equipment of pig-breeding premises or other facilities, subject to spraying by disinfectant solutions.

Disinfection Algorithm

- Spraying of surfaces is performed in the following order: starting from the premise entrance spraying uniformly floor in pens, pen partitions, equipment, walls and then the ceiling and the aisle floor.
- Simultaneously animal care items and equipment used in the premises, drinking pans, feeders, manure removal channels, sewer and ventilation system are disinfected.

Disinfection Algorithm

- Several disinfectants exist (chlorine; iodine; formalin; etc)
- After applying disinfecting solutions the premises are closed and exposure time is increased to 12-24 hours. Exposure time is selected factoring in the farm equipment sensitivity to disinfectants.
- After disinfection the facility is cleaned from the disinfectant.

Comment

Chlorine disinfectants become more active when solution temperature is increased. However, at 60C the solution decomposes faster and active chlorine content is reduced.

During cold seasons unheated facilities are treated with heated solutions. Disinfectants are prepared with a heated to 40-50C 15% (at temperatures up to -10C) or 20% (at temperatures up to -20C) solution of NaCl or use antifreeze agents.

Comment

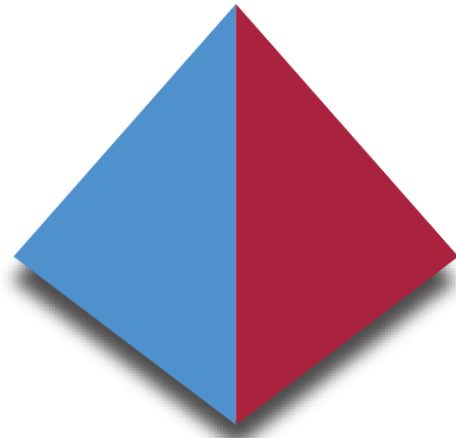


- Different techniques and methods of disinfection are used.
- Finally, disinfection quality control is performed by laboratories.
- All procedures for disinfection are recorded.



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Thank You For Your Attention!

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