



Pig  
Farming

# PIG FARMING BIOSECURITY SOLUTIONS



# BIOSECURITY – A major challenge!

In a world of continuous change and population growth, pig farms face more challenges than ever. In order to provide consumers with a high quality, risk-free protein source, whilst raising animals in conditions that maximises their welfare and minimises antibiotic usage and environmental impact, all of which requires sustained commitment and focus.

This sustained commitment and focus needs to come not only from the farming community, but from society as a whole. The quality and safety of our food depends on the efforts of everyone involved in the complex food chain from 'Farm to Fork' and from "Fork to Farm".

Animal Health is essential to any farmer – it is a pillar to success. Sick animals will cost a farmer a lot of time and possibly a lot of money. Animal health is a balance between the presence of pathogens and the resistance of the animals to it.

There are two scenarios:

- A stable health situation on farm
- An imbalance of the health situation on the farm

Applying sound biosecurity measures ensure that a stable health situation stays stable and ensures that an imbalanced health situation becomes balanced again – i.e. a stable health situation.

## What is biosecurity?

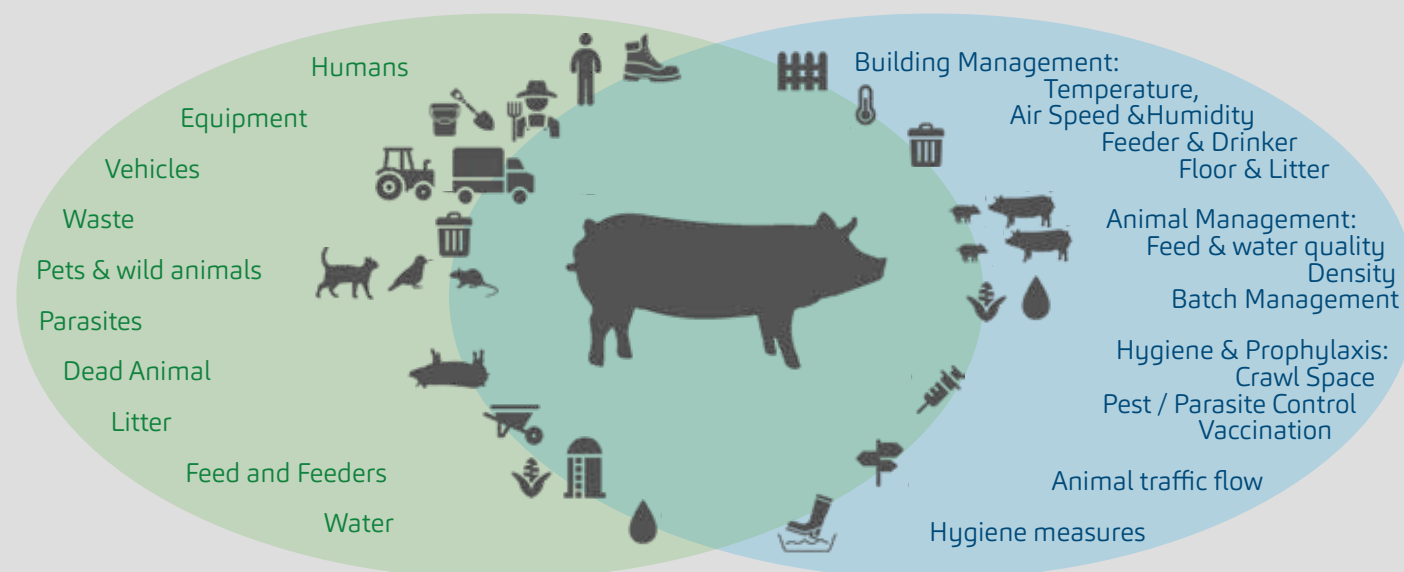
Biosecurity is essential because it reduces the potential for the introduction and spread of disease-causing organisms onto and between sites or farms.

It is based on 5 principles:

- Exclusion: **Prevent entry** of micro-organisms
- Compartmentalisation: **Prevent circulation** within the farm
- Preservation: **Prevent persistence** in the environment
- Containment: **Prevent exit** of micro-organisms
- Prevention: **Prevent human** infection

## Sources of Contamination:

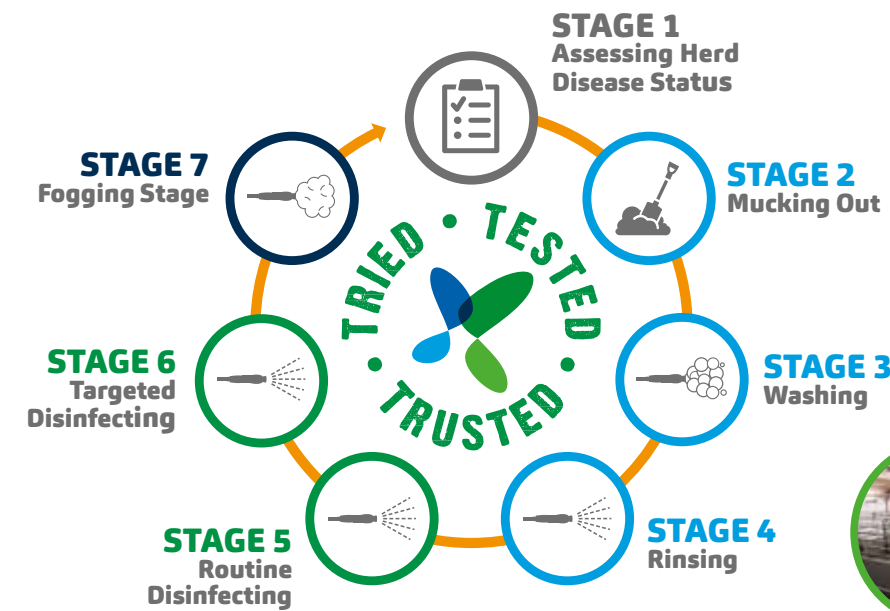
On a farm there are many potential causes of contamination – external and internal sources might be responsible for an outbreak of disease. It is essential to check your premises, your work-flow structures and your biosecurity program to identify any weak spots and adjust accordingly.



## How can Kersia help you?

Once the building and work structure is optimized, it is critical to enhance biosecurity measures through regular and if necessary targeted cleaning and disinfection procedures and through enhanced protection measures such as disinfection of materials, equipment, hands, boots, vehicles, water systems and water.

Kersia supports you with its expertise, knowledge and state-of-the-art detergents and disinfectants for a successful **cleaning**, **disinfection** and **protection** program.



**ASSESSING STATUS**  
The on-site analysis of the current situation based on the farmers information, the visual control and technical measurements on the farm.



**CLEANING**  
Effective cleaning of surfaces and equipment ensures the best possible condition for disinfection.



**DISINFECTION**  
Successful disinfection is the elimination of micro organisms through the selection of a proven disinfectant, applied at the correct dilution rate with adequate contact time.



**AERIAL DISINFECTION**  
Disinfection via thermal fumigation or Ultradiffusion® fogging is an essential protocol to help reduce airborne bacteria, moulds and viruses in hard to reach areas.



**PROTECTION**  
Protection, i.e. preventing the penetration & spread of micro-organisms, is an important pillar of a successful biosecurity programme. Measures include boot and wheel dips, washing and disinfection of vehicles, equipment and silos, personal hygiene, and continuous water treatment.




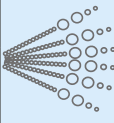




# CLEANING & DISINFECTION: Step-By-Step

When it comes to the process of cleaning and disinfecting a shed or animal contact area, it is essential to follow a strict cleaning protocol and on a regular basis.

In addition, biosecurity measures may help prevent the entry of germs entering into your building or onto your premises. Good biosecurity should be applied and followed by everyone. It is therefore essential to train your staff, providing regular reviews which include best practices are maintained and established at all times.

Ensuring clear and prominently displayed biosecurity signage is visible where it is needed the most.

What?	Where?	Product?	%	Time	Information	
Cleaning in the empty shed:						
 Spray	Pre-Rinse & Wetting	Floor & Equip- ment	Water		After mucking out.	
 Foam	Detergent for fat and protein deposits	Walls, Ceiling, Floor	Ultrafoam Ecofoam Advanced Ecofoam Plus Agacream	1-4% 1-2% 1-2% 2-5%	20 - 45 min. 20 - 60 min. 20 - 60 min. ≥ 10 min.	To be applied on dry surfaces with a spray/ foam lance (0,3 litre/m²), rinse with water
	Heavy Duty Detergent	Slats, greasy deposits	Antigermin DT	2-3%	3 - 6 h	To be applied on dry surfaces with a spray/ foam lance (0,3 litre/m²), rinse with water
	Detergent for scale removal	Drinkers, Out- side Lines	Foam Acid Acifoam Advanced	2-5% 5-20%	≥ 10 min. 30 - 60 min.	To be applied on dry sur- faces. Rinse with water.
Disinfection in the empty shed:						
 Spray	Surface disinfection:	Walls, Ceiling, Floor	Fumagri Effisafe Hypred Force 7 Viroshield Virex HPPA Agacid 5+ Virophor 2.8	1-3% 1% 1% 1% 1% 1.25% 2%	30-60 min. ≥30 min. ≥30 min. ≥30 min. ≥30 min. ≥5 min. ≥30 min.	After cleaning. Apply to dry surfaces. To be applied after special disinfection
	Special disinfection: Coccidia, oocysts, roundworm eggs, bac- teria, viruses & fungi	Floor, Equipment, Walls up to 1m	Agakok 2.5  CYCLEX	2%- 2.5%  3%	≥2 h  ≥4 h	To be applied after 1 <sup>st</sup> round disinfection on dry surfaces.
Aerial Disinfection						
 Fogging	Aerial Disinfection	Aerial	Fumagri OPP Fumagri HA	To be applied after wet disinfection for: Air, Hard to reach areas, Silo, Control Room		

## Cleaning



### Pre-Rinse & Wetting

After mucking out, a pressure washer should be used to loosen up the dirt and residual litter on floor, fences, equipment and walls.

It is essential to get rid of heavy soiling, so the detergent has better access to the surfaces and can work properly to penetrate organic and inorganic soiling to remove it from surfaces.

### Cleaning with the use of detergents

In the process of cleaning, it is essential to clean all the areas, taking into account their level of dirt and the type of soiling present. Three major areas can be distinguished:

- Wall, Ceiling, Floor:** Alkaline detergents should be used to remove all sorts of organic matter such as fat and protein deposits.
- Slats / areas with greasy deposits:** A heavy duty alkaline detergent should be used.
- Drinkers / Outside Waterlines:** An acid based detergent for scale removal should be used to prepare the materials in the best possible way for the following disinfection.



In the process of cleaning, it is essential to pay attention to edges, corners, cracks and hidden parts of the shed, such as behind the drinkers, windows or ventilation systems.

NOTE: At least once a year, a round of heavy duty cleaning with a powerful detergent should be applied in order to get rid of the most persistent soiling.

### EXAMPLE CALCULATION OF DETERGENT NEEDED

- Calculation base information:
  - Total Surface (ground, walls & ceiling) ≈ 3x Ground Surface  
→ Total Surface multiplier = 3
  - Solution Application Rate = 300 ml/m²

- Calculation of the volume of solution needed:

Shed (m²)	x	Total Surface Multiplier	x	Application Rate	=	Solution Needed
100	x	3	x	0.3l/m²	=	90l

- Calculation of the volume of detergent needed:

Shed (m²)	x	Total Surface Multiplier	x	Application Rate	x	Concentration (%)	=	Detergent Needed
100	x	3	x	0.3l/m²	x	1%	=	0.9l



## DISINFECTION



Successful disinfection is the elimination of micro organisms through the selection of a proven disinfectant, applied at the correct dilution rate with adequate contact time.

While applying the disinfectant, it is crucial that all areas come into contact with the disinfectant – i.e. the floor, wall, roof and also the difficult to reach areas.

### Standard Disinfection

Depending on the challenges your farm is facing and some building restrictions, personal preferences etc., we offer a wider range of products which can be applied to overcome standard challenges by different types of pathogens.

### Targeted Disinfection

When there does exist a special challenge such as Coccidiosis or Cryptosporidiosis caused by oocysts or an infestation of roundworm eggs, it is recommended to apply a second round of disinfection with AGAKOK 2.5 or CYCLEX, both Chlorocresol based disinfectants.

The elimination of the oocysts from the environment is essential, the consequences of a spread of the oocysts can be devastating. A single ingested oocyste can produce as many as 23 million new oocysts over a 28 day period, rapidly spreading diseases such as coccidiosis and cryptosporidiosis throughout your stock. A second round disinfection with Agakok 2.5 or Cyclex will eliminate the sporulated oocysts in the environment without causing any harm to your animals.

### EXAMPLE CALCULATION OF DISINFECTANT NEEDED

- Calculation base information:
  - Total Surface (ground, walls & ceiling)  $\approx 3 \times$  Ground Surface  
→ Total Surface Multiplier = 3
  - Solution Application Rate = 300 ml/m<sup>2</sup>

- Calculation of the volume of solution needed:

Shed (m <sup>2</sup> )	x	Total Surface Multiplier	x	Application Rate	=	Solution Needed
100	x	3	x	0.3l/m <sup>2</sup>	=	90l

- Calculation of the volume of disinfectant needed:

Shed (m <sup>2</sup> )	x	Total Surface Multiplier	x	Application Rate	x	Concentration (%)	=	Disinfectant Needed
100	x	3	x	0.3l/m <sup>2</sup>	x	1%	=	0.9l

### OVERVIEW OF DISINFECTANT USE

Shed (m <sup>2</sup> )	ONLY GROUND FLOOR*					GROUND, WALLS & CEILING				
	Solution Needed	Concentration				Solution Needed	Concentration			
		1%	2%	3%	4%		1%	2%	3%	4%
10	3 l	30ml	60ml	90ml	120ml	9l	90ml	180l	270ml	360ml
50	15l	150ml	300ml	450ml	600ml	45l	0.45l	0.9l	1.35l	1.8l
100	30l	0.3l	0.6l	0.9l	1.2l	90l	0.9l	1.8l	2.7l	3.6l

\*) only applicable at targeted disinfection /coccidiosis /cryptosporidiosis control.

DISINFECTANT	Active	Virucidal	Bactericidal	Fungicidal	Yeasticidal	Mycobactericidal	Oocysts (Cocci / Crypto)	Ascaris suum
Fumagri Effisafe	Chlorocresol, OPP	1% ≥ 30 min.	1% ≥ 30 min.	2% ≥ 60 min. 3% ≥ 30 min.	1% ≥ 30 min.	1% ≥ 60 min.	--	--
Hypred Force 7	Glut/QAC	1% ≥ 30 min.	0.75% ≥ 30 min.	--	0.5% ≥ 30 min.	--	--	--
Viroshield	Glut/QAC	1% ≥ 30 min.	0.5% ≥ 30 min.	--	--	--	--	--
Virophor 2.8	Iodophor	2% ≥ 30 min.	2% ≥ 1 min.	--	2% ≥ 1 min.	--	--	--
Virex	Active chlorine generated from precursors	1% ≥ 30 min.	1% ≥ 30 min.	--	3% ≥ 30 min.	--	--	--
HPPA	5% Peracetic Acid	0.5% ≥ 30 min.	1% ≥ 30 min.	--	--	--	--	--
Agakok 2.5	Chlorocresol	1% ≥ 30 min.	1% ≥ 30 min.	1% ≥ 30 min.	1% ≥ 30 min.	1% ≥ 60 min.	2% ≥ 120 min. ≥ 20°C	2.5% ≥ 120 min. ≥ 20°C
Cyclex	Chlorocresol, L(+)-Lactic acid, salicylic acid	--	3% ≥ 30 min.	--	--	--	3% ≥ 4 hrs.	--

All test, if not otherwise indicated, are conducted at 10°C temperature.

## AFRICAN SWINE FEVER

African Swine Fever (ASF) a severe viral, transboundary animal (TAD) disease affecting domestic and wild pigs. It is responsible for serious production & economic losses. Transmission can occur through direct contact from contaminated live or dead pigs, feed, water and fomites such as shoes, clothes, vehicles, equipment and some insect bites.

**There is no vaccine against ASF - cure is impossible!**

**We advise to follow a strict cleaning, disinfection & protection program.**



**Virex, Effisafe, HypredForce7, Viroshield - successfully tested against ASF Virus**

Test Method: EN14675	Concentration	Temperature	Contact Time	FBS (soiling)
VIREX <sup>1)</sup>	0.25%	20°C	60 min.	BSA 3g/L
	0.5%	20°C	30 min.	BSA 3g/L
	1%	4°C	5 min.	BSA 3g/L
FUMAGRI EFFISAFE <sup>1)</sup>	1%	10°C	1 min.	BSA 3g/L
HYPRED FORCE 7 <sup>1) / 2)</sup>	1%	10°C	30 min.	BSA 3g/L
VIROSHIELD <sup>2)</sup>	1%	10°C	30 min.	BSA 3g/L

Efficacy tests against ASF Virus were recently conducted at:

<sup>1)</sup> Wageningen University / the Netherlands '86 ASFV isolated on porcine alveolar macrophages

<sup>2)</sup> Instituto Valenciano de Microbiología(ES) / the surrogated Vaccinia Poxvirus (ATCC-VR-1508)



FOGGING STAGE

Aerial Disinfection

Disinfection via Ultradiffusion® is an essential step to reduce airborne bacteria, moulds and viruses in hard to reach areas or in areas where a wet disinfection is not feasible. ULTRADIFFUSION® is a 2nd disinfection and can be applied to sheds, control rooms and silos.

FUMAGRI HA

A bactericidal, virucidal, yeasticidal and fungicidal disinfectant with glycolic acid, dispersion by ULTRADIFFUSION®. Demonstrated prevention against Aspergillus and effective against Salmonella, other bacteria, moulds and viruses. Non staining, non corrosive on steel & aluminium and uniform diffusion of disinfectant. Suitable for hatcheries and feed silos.



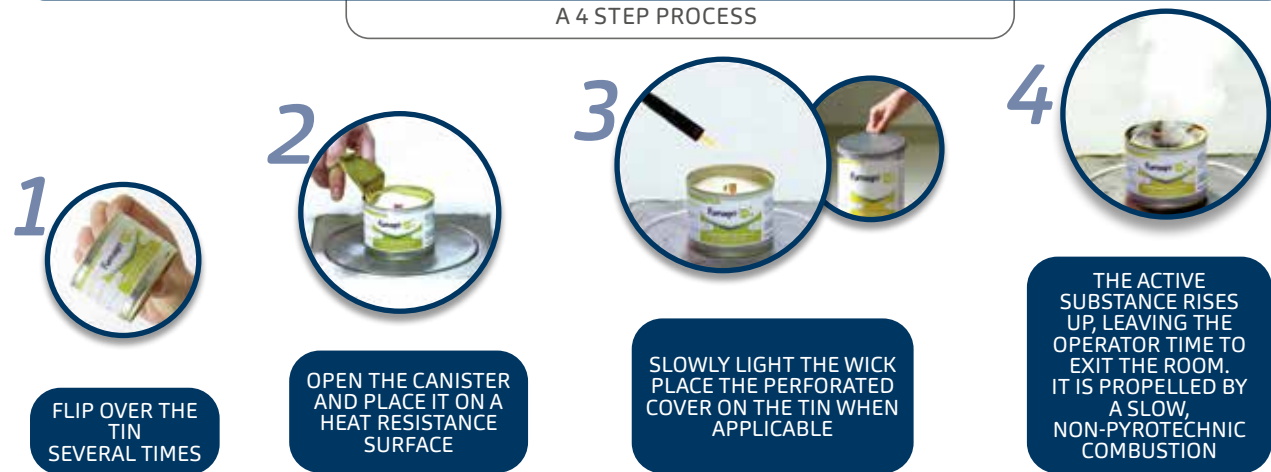
FUMAGRI OPP

A disinfectant based on OPP and dispersion by ULTRADIFFUSION® with a bactericidal, yeasticidal, fungicidal and virucidal on classical swine fever and PRRS efficacy. Demonstrated effective towards the prevention of Aspergillus and effective against Salmonella, other bacteria and moulds. Suitable for animal housing.



SIMPLE & EASY-TO-USE:

A 4 STEP PROCESS



Benefits:

Efficient	Homogeneous dispersion & optimal particle size allowing prolonged contact time dispersion to hard to reach zones.
Versitile & Cost Effective:	Ready to use, no water required & precise dose adaption according to the volume to be treated.
Safe:	Slow and non-pyrotechnic wick, operator not required in room during process, no risk of corrosion & limitation of residues.

PROTECTION: Step-By-Step

After the successfull cleaning and disinfection of the farrowing pens, weaning units and finishing units and surrounding buildings, it is essential to keep the animal environment clean and prevent the penetration & spread of microorganisms. The prevention of transmission requires a combination of:

- **structural management:** buildings, fences, ventilation system, etc.
- **and biosecurity measures:** bedding powder, fly control, water treatment, cleaning and disinfection of water system, vehicles, boots, equipment and personnel hygiene

What?	Where?	Product?	%	Time	Information
Protection Measures					
Powder	Bedding Powder	Flooring / Bedding	Envirex+	300 g/m² – dusted over the area	
Water System	Cleaning removes organic dirt and slimy residues	Water Lines	Dual Acid	1%	≥ 10 min. Rinse with water after application. (Animals not present!)
	Cleaning & sanitizing, removes slimy and mineral deposits	Water lines (shock disinfection)	HPPA Agacid 5+ White Virex	1% 1% 1%	3-6 hrs. 3-6 hrs. 15 min. (Animals not present!)
DRINKING WATER	Continous water treatment	Water	AQUATABS® AQUATABS IN-LINE White Virex Clor'o	1 tablet in 1000 litres of water 1 cartridge treats 360,000 litres of water 0.1% (1kg / 1000l) 0.001% - 0.0025% (10 - 25 ml/1000 l)	
VEHICLES	Vehicle Detergent	Vehicles	Agrimat Kleenfleet	2-3% 1-2%	≥ 5 min. ≥ 5 min. Rinse with water, preferably at high pressure.
WHEELS	Vehicle & Wheel Disinfectant	Vehicles	Hypred Force 7 Fumagri Effisafe	1% 2%	≥ 30 min. / bactericidal, yeasticidal & virucidal ≥ 5 min. / bactericidal, yeasticidal & virucidal
		Wheel Dips	Virex Fumagri Effisafe	1% 2%	≥ 30 min. / bactericidal & virucidal ≥ 5 min. / bactericidal, yeasticidal & virucidal
BOO D I P	Disinfectant	Boot Dips	Virex Fumagri Effisafe	1% 2%	≥ 30 min. / bactericidal & virucidal ≥ 5 min. / bactericidal, yeasticidal & virucidal
	Hand Wash lotion	Personal Care	Softy Touch'	Get your hands & forearms wet. Take a dose. and rub your hands and forearms and brush your nails. Rinse and dry with a disposable towel.	
	Hand Sanitizer	Personal Care	Disinfectant Gel Disinfectant Solution	Wash your hands first. Put 3 ml in your cupped hand and rub your hands 30-90 sec. Do not rinse or dry your hands.	





## PROTECTION



### Bedding Powder with ENVIREX+

Disinfecting litter powder with strong absorption capacity based on a mineral complex and 2% VIREX. It offers a neutral pH at 10 g/l of 8 +/- 0.5, a fresh spring aroma, a strong reduction in the ammonia odor, does not stick to the hands and is easy to scatter. Application recommendation:

- Maternity : apply to litters and gratings, spread daily in the nests of the piglets as well as on the heating pads : 300 g/m<sup>2</sup> every 2 days
- Farrowing : Sprinkle on piglets for drying and warming newborns)
- Fattening: 300 g/m<sup>2</sup> per week in the damp zones



### Vehicle Cleaning & Disinfection

Transport comes in many forms across the industry and is present in all parts of the process chain. From a live animal vehicle, to a feed transport lorry, the movement of vehicles from and between various sites can pose a significant biosecurity risk in the spread of disease. Kersia solutions range from wheel disinfection entering and exiting sites to the internal cleaning and disinfection of transport vehicles.

#### Detergent

Agrimat	A specialised alkaline detergent for the cleaning and removal of static film, mineral fats and oils, diesel fuel stains and brake dust. Effective on black marks and rubber tyres. Also acts as a mosquito repellent. 2-3% dilution depending on level of soiling / ≥ 5 min. (Engines, equipment very dirty: dosage of 15-20% / ≥ 5 min.)
Kleenfleet	A mildly alkaline blended detergent for the removal of traffic film. Highly concentrated and effective in hard water. 1-2% dilution depending on level of soiling / ≥ 5 min.

#### Disinfectant

Hypred Force 7	Broad spectrum GLUT / QAC based disinfectant with a wide spectrum of activity. Effective in the presence of residual organic matter.	bactericidal: 0.75% / ≥ 30 min. / 10°C virucidal: 1% / ≥ 30 min. / 10°C yeastcidal: 0.5% / ≥ 30 min. / 10°C
Fumagri Effisafe	Disinfectant based on two active ingredients that are fast acting, non-corrosive and which offer a broad spectrum of activity. Effective against viruses, bacteria, yeast, fungi and mycobacteria. FUMAGRI EFFISAFE is an alternative to glutaraldehyde and QAC.	bactericidal: 1% / ≥ 30 min. / 10°C virucidal: 1% / ≥ 30 min. / 10°C yeastcidal: 1% / ≥ 30 min. / 10°C fungicidal: 2% / ≥ 60 min., 3% / ≥ 30 min. / 10°C mycobactericidal: 1% / ≥ 60 min. / 10°C

### Wheel & Foot Dips

When moving from one area to another, it is essential to disinfect boots or the wheels of the vehicle in order to prevent the entry, the circulation and the spread of a disease.



VIREX	Active chlorine generated from precursors.	BOOTDIP	WHEELS	1% bactericidal & virucidal / ≥ 30 min. 3% yeastcidal / ≥ 30 min.
FUMAGRI EFFISAFE	Chlorocresol & OPP (Orthophenylphenol)			2% bactericidal, yeastcidal & virucidal / ≥ 5 min.

## Water System & Water

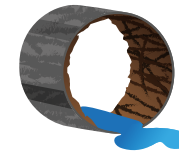
Kersia's approach is to offer healthy and clean water to your animals, this is achieved through a comprehensive water hygiene programme containing 4 necessary steps:

1. Analysis
2. Cleaning
3. Shock Disinfection
4. Continuous Treatment



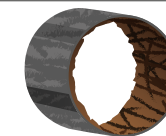
### WATER SYSTEM CLEANING:

A 4 STEP PROCESS



#### 1. Analysis

Undertake water analysis to determine micro and scale causing microbial levels.



#### 2. Cleaning

- a) Choose a suitable detergent cleaner and descaler for inside the pipes and tanks.
- b) Choose a suitable detergent cleaner for outside the pipes and drinkers. (see cleaning procedures)



#### 3. Shock Disinfection

Use a shock disinfection between two crops to reduce microbial challenges.



#### 4. Continuous Treatment

Choose a suitable water disinfection treatment for avoiding the reestablishment of the exopolysaccharides matrix which is bearing the biofilm and to ensure continuous supply of clean water.

#### PIPE CLEANING PRODUCTS

a)	Hygienization, removes organic dirt and slimy residues (non-foaming)	Dual Acid	Phosphoric Acid / Nitric Acid	1%, ≥ 10 min.
b)	Detergent for scale removal (foaming)	Foam Acid	Phosphoric Acid	2-5%, ≥ 10 min

#### SHOCK DISINFECTION PRODUCTS

Hygienization, removes slimy and mineral deposits	HPPA Agacid 5+ White Virex	Peracetic Acid / Hydrogen Peroxide Peracetic Acid / Hydrogen Peroxide Active chlorine generated from precursors	1%, 3-6 hrs. 1%, 3-6 hrs. 1%, ≥ 15 min.
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#### CONTINUOUS WATER TREATMENT

White Virex	Active chlorine generated from precursors	0.1% / continuously
Clor'o	Active chlorine released from sodium hypochlorite	0.001 - 0.0025% / continuously
AQUATABS®	Effervescent tablets based on NaDCC. Active chlorine released from troclosene sodium.	
AQUATABS IN-LINE	Cartridge system and TCCA tablets. Active chlorine released from symclosene.	

**Aquatabs InLine**  
Water Purification System



Assists in the Control of Biofilm Build Up  
Keeps Water Safe  
Controls Legionella  
Eliminates Viruses  
Kills Microorganisms  
Eliminates Bacteria  
Keeps Water Safe  
Eliminates Bacteria  
Eliminates Viruses

**Disinfects 360,000 Litres of Water**

# Diseases on Pig Farms

Generally, diseases on a pig farm can be classified as either “classical”, i.e. those which occur on a day-to-day basis or “notifiable”. Notifiable diseases are infectious diseases which are not present on a day-to-day basis, within a specific nation or region. The negative impact of such diseases on animal health and welfare, economics, national and international trade or possibly human health, forces the authorities to impose restrictions on a farm or a region when exporting pigs.

BACTERIA	DISEASE/SYMPTOMS	BACTERICIDAL PRODUCTS
<i>Bacillus anthracis</i>	Anthrax. Zoonosis	Disinfectants with a bactericidal claim based on EN Tests :  Hypred Force 7 Viroshield Fumagri Effisafe Virophor VIREX HPPA
<i>Brachyspira hyodysenteriae</i>	Dysentery, bloody diarrhea	
<i>Escherichia coli</i>	Diarrhea and mastitis	
<i>Mycobacterium bovis</i>	Bovine tuberculosis. Zoonosis	
<i>Mycoplasma hyosynoviae</i>	Lameness / joint ill	
<i>Staphylococcus hyicus</i>	Greasy pig disease	
<i>Salmonella choleraesuis</i>	Salmonellosis. Zoonosis	
<i>Salmonella derby</i>	Salmonellosis. Zoonosis	
<i>Salmonella typhimurium</i>	Salmonellosis. Zoonosis	
VIRUS	DISEASE/SYMPTOMS	VIRUCIDAL PRODUCTS
<i>African Swine Fever (ASFV)</i>	Haemorrhagic fever with high mortality	Disinfectants with a virucidal claim based on EN Tests :  Hypred Force 7 Viroshield Fumagri Effisafe Virophor VIREX HPPA
<i>Aujeszky's Disease virus</i>	Aujeszky's Disease/pseudorabies	
<i>Circovirus</i>	PMWS (postweaning multisystemic wasting syndrome)	
<i>Classical Swine Fever Virus</i>	Hog cholera/swine plague. Fever, high mortality	
<i>Foot-and-Mouth Disease (FMD) virus</i>	Foot-and-Mouth Disease. Zoonosis	
<i>Porcine Epidemic Diarrhoea virus - Coronavirus</i>	Porcine Epidemic Diarrhoea (PED)	
<i>Porcine Parvovirus (PPV)</i>	Porcine Parvovirus, reproductive failure	
<i>Rotavirus</i>	Rotavirus, diarrhea	
<i>PRRS virus</i>	Porcine Reproductive and Respiratory Syndrome	
<i>Swine Vesicular Disease virus</i>	Vesicular Stomatitis	
<i>Teschen Disease virus</i>	Teschen Disease, Fever, high mortality	
FUNGI AND YEASTS	DISEASE/SYMPTOMS	YEASTICIDAL PRODUCT
<i>Candida albicans</i>	Candidiasis	Disinfectants with a yeasticidal claim based on EN Tests: Hypred Force 7, Fumagri Effisafe, Virophor, VIREX, Agakok 2.5
FUNGI AND YEASTS	DISEASE/SYMPTOMS	FUNGICIDAL PRODUCT
<i>Aspergillus brasiliensis</i>	Aspergillosis	Disinfectants with a fungicidal claim based on EN Tests: Fumagri Effisafe, Agakok 2.5
PARASITES	DISEASE/SYMPTOMS	PARASITIC PRODUCT
<i>Coccidia</i>	Coccidiosis, Diarrhea, mortality	EN Tests - <i>Cryptosporidium parvum</i> (DVG): Agakok 2.5, Cyclex  EN Tests - <i>Ascaris suum</i> (DVG) Agakok 2.5
<i>Cryptosporidium</i>	Cryptosporidiosis, Diarrhea, mortality	
<i>Ascaris Suum</i>	Ascariasis	

Local product portfolios and registrations may vary. Please contact the local sales representation for further information.