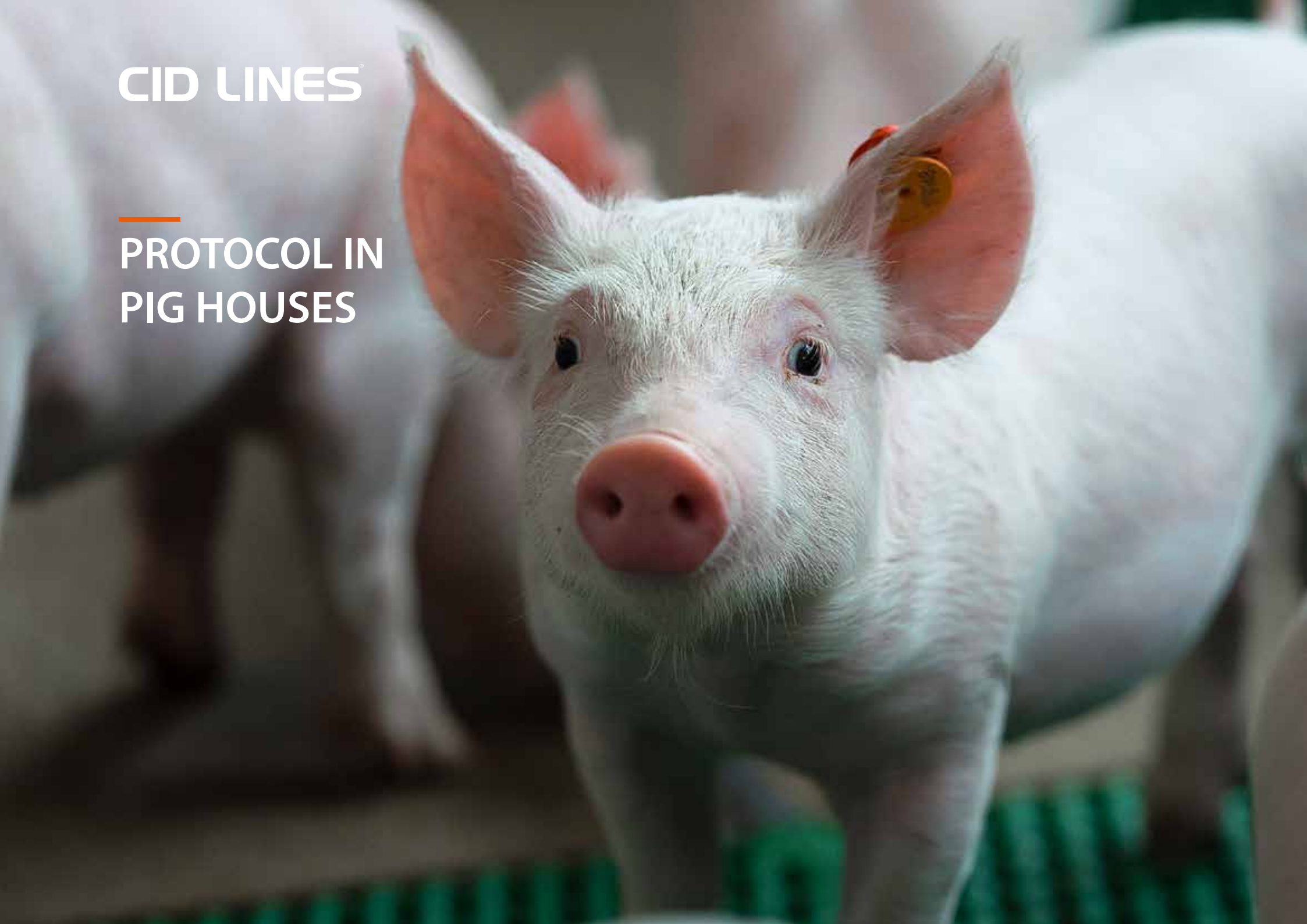
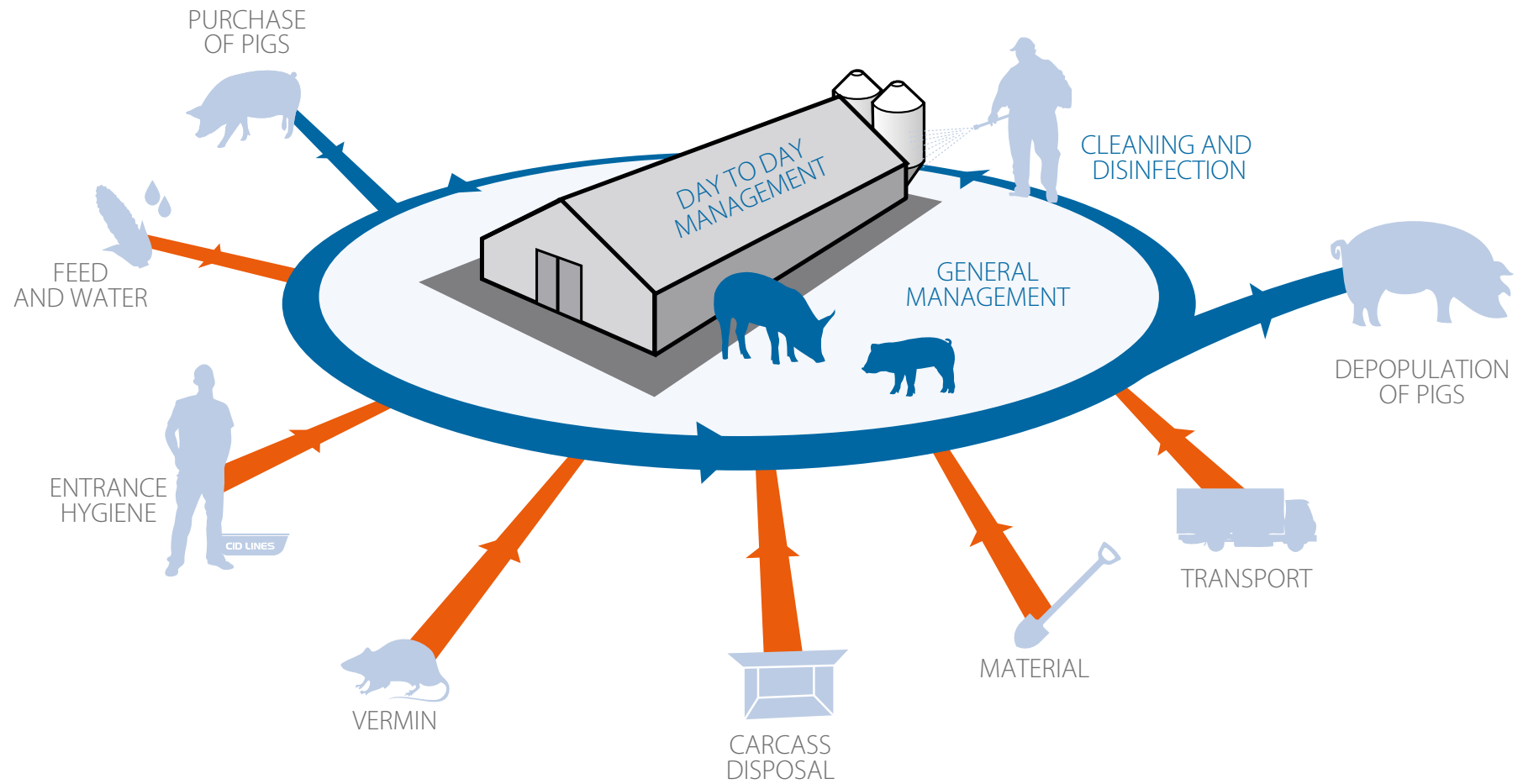


CID LINES[®]

—
PROTOCOL IN
PIG HOUSES



BIOSECURITY house



1 INTRODUCTION

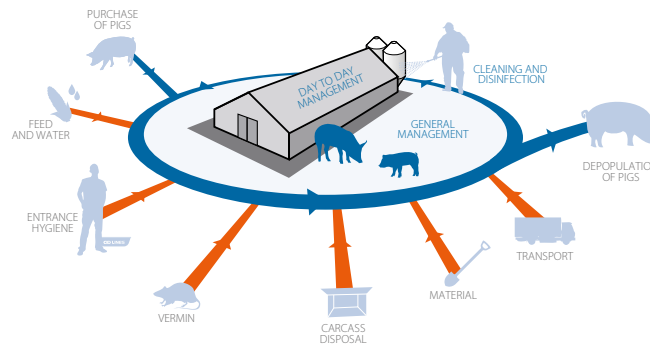
Biosecurity is the combination of all measures taken to reduce the risk of introduction and spread of infectious diseases at farm level throughout the region, country or even worldwide.



'Assessing risk and implementing measures to decrease that risk and to safeguard and improve health status on a farm.'

A biosecurity program is (should be) the basis of any disease control program and should be practical, cost effective and reviewed regularly.

Potential routes of disease exposure:
We have **EXTERNAL** biosecurity and **INTERNAL** biosecurity.



2 CLEANING AND DISINFECTION

2.1 ANIMAL HOUSES

Housing hygiene

Cleaning animal houses



STEP 1
Dry cleaning
Take away all rests of manure.



STEP 2
Soak with water



STEP 3
Spray/foam with high pressure
Kenosan: 1 % -1.5 %
Contact time: 15-30 min.



STEP 4
Rinse with water (high pressure cleaner) and let dry



STEP 5
Let dry before disinfecting



STEP 6
Disinfecting (spray/foam) after every batch (when stable is empty) and let dry
Virocid®: 0.25 % - 0.5 %
Contact time: let it dry.

2.1 ANIMAL HOUSES

Disinfecting animal houses

Virocid®



STEP 1

A good disinfection starts with a well cleaned and dry animal house.



STEP 2

Spray or foam 0.25 - 0.40L water/m² l with 0.25 % - 0.5 % Virocid®.



STEP 3

Fog with Virocid®. (1 - 2L Virocid® + 3L water for 1000 m³). Leave the house closed during 24h. Close the animal house completely. Make sure that nobody is left in the house.



STEP 4

Ventilate the house to refresh the air, before bringing animals in.



Hygiene Protocol

Animal hygiene



STEP 1

Showering sows

Use a skin-protecting sow shampoo and use the right dilution (see label).

1. Lather the sows using a foam lance
2. Allow it to soak in for the time shown on the label (usually about 5 mins).
3. Rinse the sows, preferably with lukewarm water (reduce the water pressure and maintain a safe distance when using a high pressure lance).



STEP 2

Take the sows to the farrowing pen



STEP 3

Treating the sows

Start the treatment as soon as the sows are dry and use an iodine based skincare product.

1. Spray the ready-to-use solution onto the skin.
2. Pay particular attention to the teats and vulva (repeat this treatment every day until 2 days after farrowing).

2.2 EXTERNAL AREAS

Cleaning and Disinfecting External Areas



STEP 1 Dry cleaning

Remove all dirt.



STEP 2 Cleaning

Clean the external areas around the house thoroughly as wall, all concrete areas should be washed: area under ventilation systems, under feed bins, access routes, door surrounds, gutters, ... Use Biogel 2 % - 5 % (not on aluminium!) or Kenosan 1 % - 1.5 %, contact time 15 - 30 minutes. Clean with high pressure and rinse afterwards with cold water (low pressure, high flow).



STEP 3 Remove excess of water and let it dry



STEP 4 Disinfection

Disinfect all cleaned surfaces, you can use Virocid® 0.25 % - 0.5 % by spraying or foaming. Contact time: let it dry!

CID LINES

2.3 CARCASS BINS

Hygiene protocol

Dead bins



STEP 1

Dry cleaning

Take away all the remaining dirt.



STEP 2

Foaming

Foam the carcass bins with Kenosan 1% - 1.5%, contact time of 30 minutes.



STEP 3

Rinse with water

High pressure cleaner (50-150 bar, 12-30L/min.)

Let it dry!



STEP 4

Disinfecting

Spray or foam after every collecting. 0.25% - 0.5% Virocid® and let it dry!

2.4 EVALUATION OF CLEANING AND DISINFECTION BINS



Monitor the efficacy of the cleaning and disinfection on regular basis. Complete bacterial and *Salmonella* counts has to be done at least once a flock. This will allow you to make continuous improvements on farm hygiene. If the cleaning and disinfection is done in a good way, no *Salmonella* spp. should be isolated during the samplings.

Hygiene protocol

Water hygiene



STEP 1
Removing biofilm and scale

Remove biofilm and scale all sanitising the innerside of pipes.



STEP 2
Cleaning

Set the required dilution rate using a dosing pump. Use 2 % CID 2000, contact time 4 - 6 hours.



STEP 3
Rinsing

Flush the debris out of the dinking water lines by rinsing with clean water. Check if the product solution is removed with test strips.

Everything that you put in the water line leaves residues behind. The water leaves calcium behind, organic acids leave organic matter and medication and vaccines leave carriers behind or precipitate. All these things form a slime complex and this is called biofilm. Biofilm is a mix of organic and inorganic ingredients in which microbes are multiplying.

The consequences of a biofilm are:

- Source of contamination of the water
- It decreases water flow and blocks the system (nipples)
- It deactivates medicines and vaccines and that leads to under dosage or poor results

2.6 PREVENTING DISEASES TRANSMITTED BY HUMANS



Hygiene protocol



STEP 1

Prevent unauthorized access to the farm



STEP 2

Shower & clothing

All people entering the farm have to take a shower and change clothing (farm specific cloths only).

Leave all personal stuff outside the farm or clean and disinfect if the equipment is needed.



STEP 3

Hand hygiene

Wash the hands with soap, rinse with clean water and disinfect the hands afterwards.



STEP 4

Boot hygiene

1. Dry cleaning of the boots/shoes
2. Rinse with water
3. Go through a boot bath with 1 % Virocid®
4. Check the disinfecting solution with test strips and renew regularly; 2 - 3 times a week



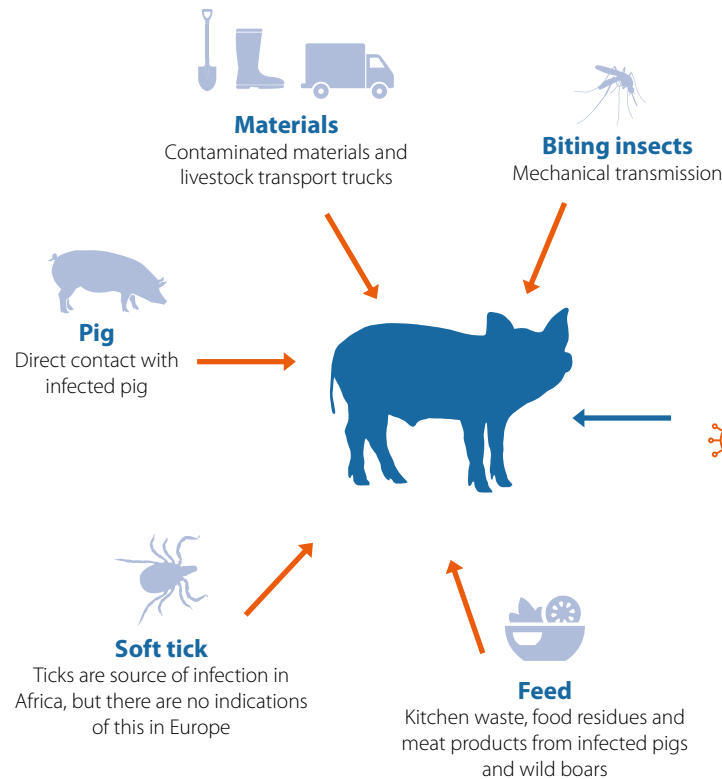
STEP 5

Follow the working lines

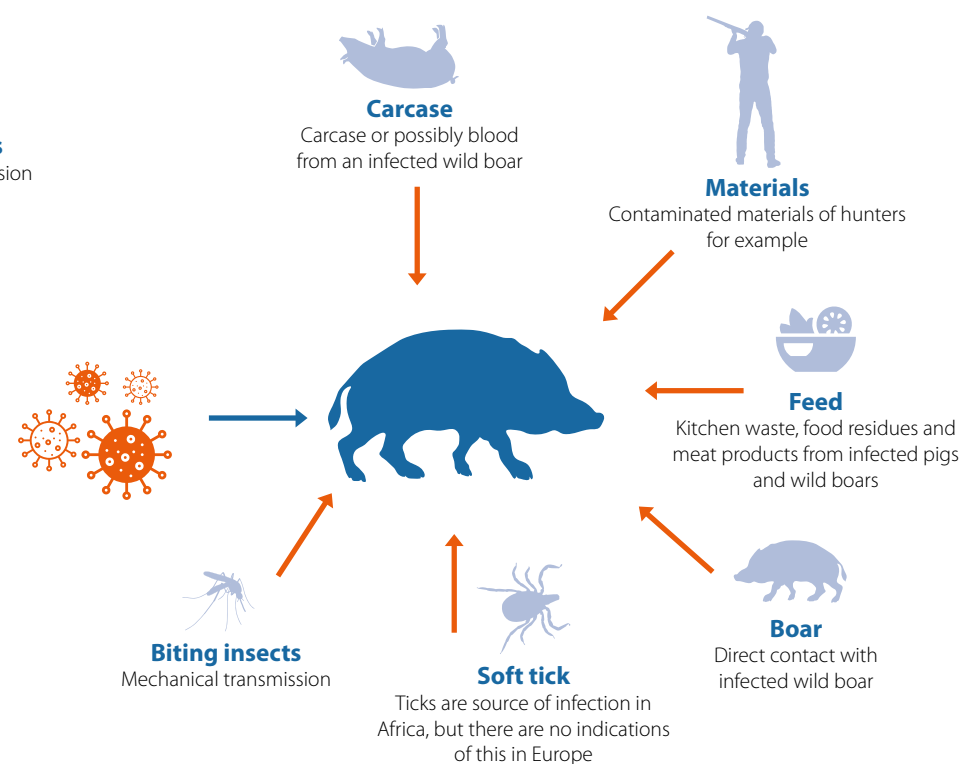
From the youngest to the oldest flocks.

African Swine Fever

How do **pigs** become infected?



How do wild **boars** become infected?



African Swine Fever (ASF) is a notifiable animal disease which affects domestic pigs and wild boar. In its African countries of origin the ASF virus is transmitted by soft ticks. These are negligible in Central Europe. Here, transmission occurs through direct contact with infected animals (secretions, blood, semen), ingestion of food waste, pork products or preparations and other indirect routes of transmission (vehicles, contaminated equipment including hunting gear, agricultural tools, machinery and clothing). Contact with blood is the most efficient route of transmission. After infection the animals develop very severe, but unspecific general symptoms. ASF is not a zoonosis, i.e. a disease which can be transmitted from animals to humans, and therefore represents no danger for humans.

2.6 PREVENTING DISEASES TRANSMITTED BY HUMANS

Personal Hygiene

Boot hygiene



STEP 1
Dry cleaning (brush)
Take away all rests of manure.



STEP 2
Rinse with water



STEP 3
Disinfect with Virocid®/Kickstart



STEP 4
Renew
Renew the solution regularly: 2-3 times/week.



2.6 PREVENTING DISEASES TRANSMITTED BY HUMANS



Personal Hygiene

Hand hygiene



STEP 1
Palm to palm.



STEP 2
Right palm over back of left hand and left palm over back of right hand.



STEP 3
Palm to palm with fingers interlaced.



STEP 4
Backs of fingers to opposing palms with fingers interlocked.



STEP 5
Rotational rubbing of right thumb clasped in left palm and vice versa.



STEP 6
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.



STEP 7
Dry your hands.



STEP 8
Disinfect with Kenosept L/G.

2.6 PREVENTING DISEASES TRANSMITTED BY HUMANS

Boot dip test

Kickstart/Virocid®



METHOD

Peracetic acid reacts with a phenol derivate to form a violet dye. The concentration of peracetic acid is measured semiquantitatively by visual comparison of the reaction zone of the test strip with the fields of a color scale.



STEP 1

Application

Boot dips: 2% Kickstart/ 1% Virocid®

water	Kickstart
1l	20 ml
5l	100 ml
10l	200 ml
15l	300 ml

water	Virocid®
1l	10 ml
5l	50 ml
10l	100 ml
15l	150 ml

STEP 2

Procedure

1. Stir the solution briefly before immersing the test strip.
2. Immerse the reaction zone of the test strip in the solution for 2 seconds.
3. Allow excess liquid to run off via the long edge of the strip onto an absorbent paper towel.
4. Wait 30 seconds.
5. Determine with which color field on the label the color of the reaction zone coincides most exactly.

STEP 3

Note

- Reclose the tube containing the test strips immediately after use.
- If test strip stays yellow, it is time to change the boot dip (2 days with heavy contamination).

Color	0	500	1000mg/l	1500	2000
Concentration	0%	1%	2%	3%	4%

2.7 PREVENTING DISEASES TRANSMITTED BY ANIMALS

Hygiene protocol

Transmitted by animals



STEP 1

All-in-all-out.



STEP 2

Downtime between different flocks. This will reduce contamination.



STEP 3

Pest control, wild birds, other animals. Avoid contact with other animals, keep the barn closed.



STEP 4

Don't leave equipment/material/feed lying around.

Clean up, all material & equipment have their own place, don't leave it lying around, clean up feed spills, ...

2.8 PREVENTING DISEASES TRANSMITTED BY TRANSPORT

Hygiene Protocol Transport



15'



STEP 1

Entering the premises

Disinfection bow, wheel bath, wheel mats, ...



STEP 2

Dry cleaning after unloading

Take away the remaining dirt.



STEP 3

Foam cleaning

Foam interior, exterior, wheels, equipment, loading bay, ... Use Kenosan 1 % or Biosafe 2 - 3 %, contact time: 15-30 minutes.



STEP 4

Rinsing

Rinse with high pressure and water.



STEP 5

Disinfection

Spray or foam interior, exterior, wheels, equipment, loading bay, ... Use Virocid® 1 % and let it dry.



STEP 6

Cabine cleaning and disinfection

Dry clean the pedals, carpets, steering wheel, steps and seats with a hand brush. Disinfect the pedals, carpets, steering wheel, steps and seats with Virocid® RTU.



STEP 7

Personal hygiene

1. Wash your hand with soap and disinfect with Kenosept L/G.
2. Disinfect your shoes/boots with Virocid® RTU.
3. Make sure you have separate clothing for (un)loading and driving the truck.