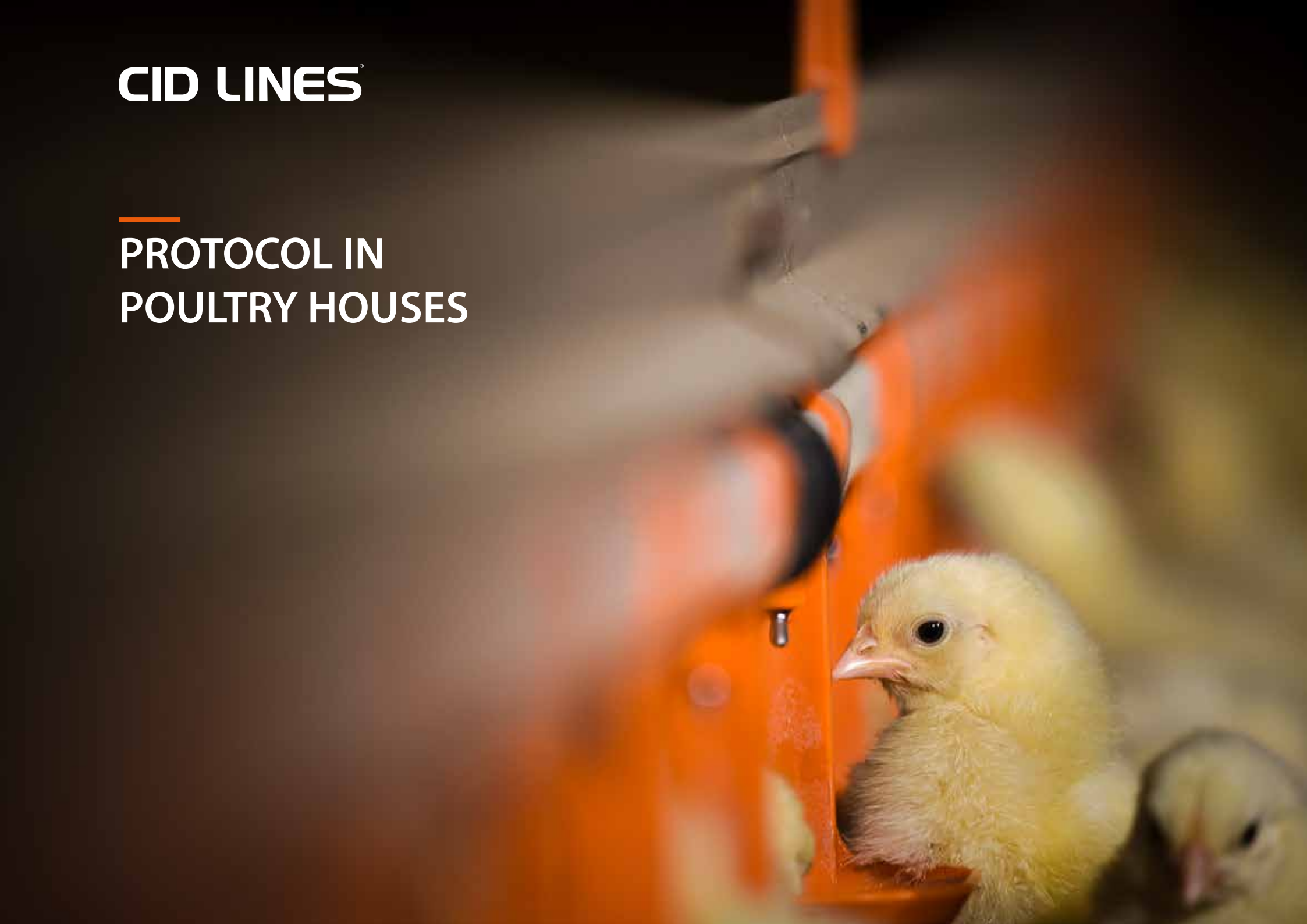
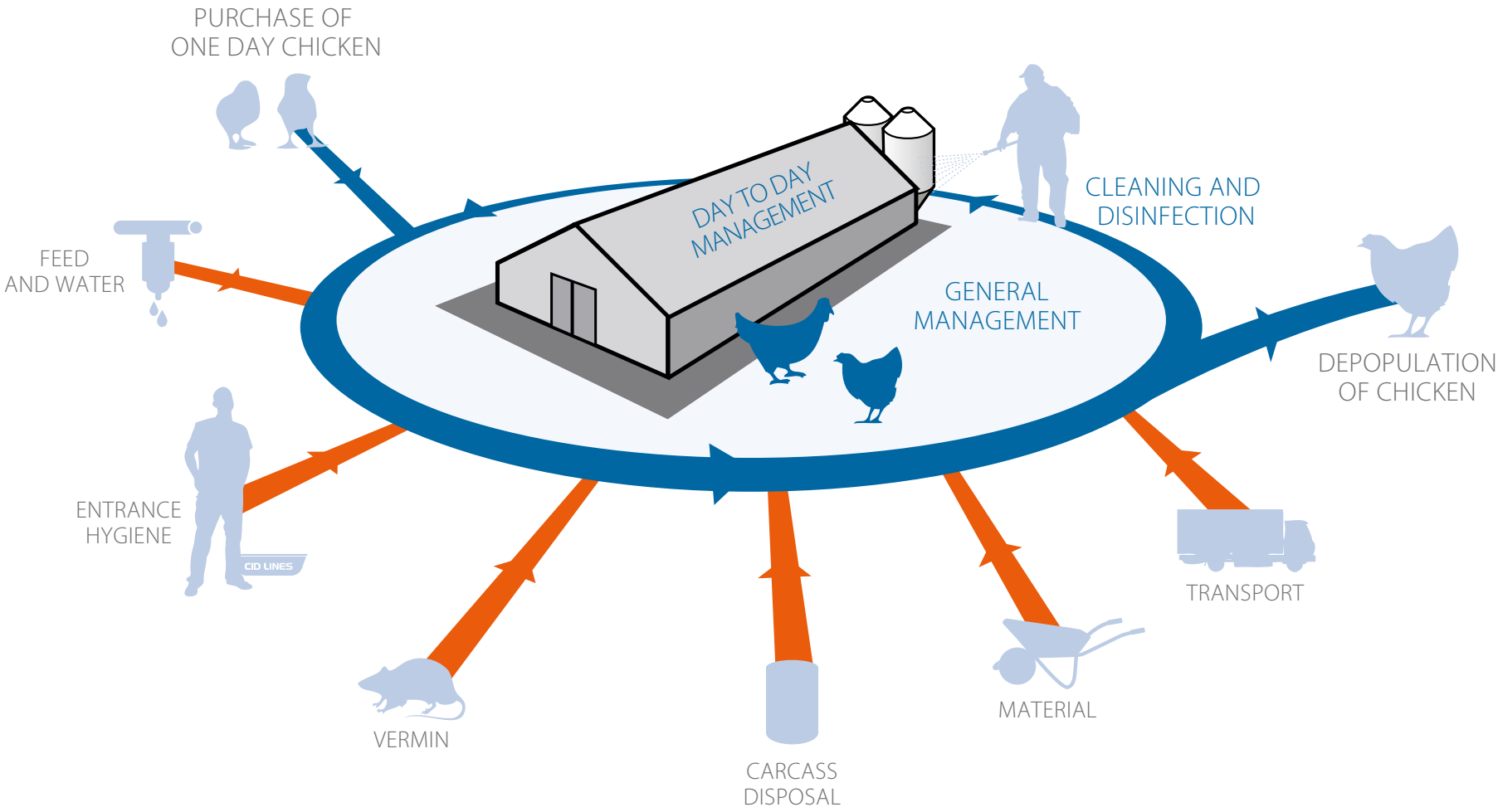
CID LINES®

PROTOCOL IN POULTRY HOUSES



BIOSECURITY



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.

BIOSECURITY

PREVENTION of new diseases

CONTROL of existing diseases

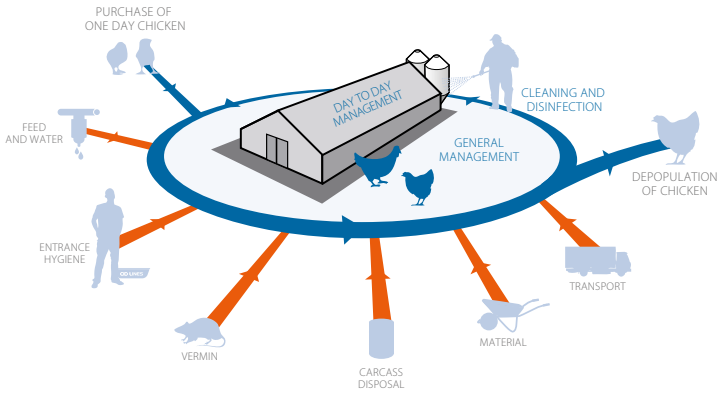
'Assessing risk and implementing measures to decrease that risk and to safeguard and improve health status on a farm.'

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.

Reduce intoduction of diseases

reduce spread of diseases



2 CLEANING AND DISINFECTION

2.1 ANIMAL HOUSES

Housing hygiene

Cleaning animal houses

STEP 1

Dry cleaning

Take away all rests of manure. The manure and litter should be removed out of the barn, and if possible immediately transported outside the farm site.

STEP 2

Clean water system (inside)

The water system must be cleaned before the animal house is cleaned. First the water system has to be emptied and than filled up again with a 2% Cid 2000 solution. It is important to push on every single nipple to allow the solution to clean also the nipple. The contact time must be respected to achieve a good result. After 4-6 hours, the water system must be rinsed with clean water to flush out all the loosened dirt.

STEP 3

Soak with water, remove most of dirt

Soaking with water for 4-6 hours improve the cleaning results.

STEP 4

Clean ventilation fans and air inlets

2.1 ANIMAL HOUSES

Housing hygiene

Cleaning animal houses

STEP 5

Clean ceilings

The first thing that must be cleaned inside the barn is the ceiling and the ventilation shafts. If this is not done first, the dirt can recontaminate other parts of the building.

STEP 7

Soak with water, remove most of dirt

Apply the detergent on the entire house structure; ceiling, walls, curtains, fans and equipment and let the building soak 15-30 min before hitting it again with a high pressure wash. Hot water aids in washing effectiveness. Following the wash phase with a high pressure rinse and repeat as needed until a "like new" clean is achieved.

After the cleaning, a final rinse with cold water must be done to remove the dirt particles and the chemicals. This final rinse must be done with low pressure and a high flow. Too high pressure will cause splashing water that can make drinkers and feeders dirty again.

Don't use Biogel on aluminium!

· Foaming
· Biogel: 2-5% - Keno™ san: 1-1,5%
· 15-30 minutes contact time

STEP 6

Clean outside of feeding and water system

Feeding pans should be dismantled and cleaned properly to remove all the residues of feed and organic matter.

The outside of the feeding lines and of the water system can be cleaned by the foaming-cleaning-rinse protocol

- Apply detergent
- 15-30 minutes contact time
- Clean with high pressure
- Rinse

STEP 8

Remove excess of water and let 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 - 0,40 litre water/m^2 with 0,25%-0,5% Virocid®.

STEP 3

Close the animal house completely. Make sure that nobody is left in the house.

STEP 4

Fog with Virocid® (1-2L Virocid® + 3L water for 1000 m^3) Leave the house closed during 24h.

(1L + 3L water in normal circumstances
2L + 3L water in epidemic circumstances).

STEP 5

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

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!

2.3 CARCASS BINS

Hygiene protocol
Dead bins

STEP 1
Dry cleaning

Take away all 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.) and let dry.

STEP 4
Let it dry

STEP 5
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% Viro-cid®
4. Check the disinfecting solution with test strips and renew regularly; 2 - 3 times a week.

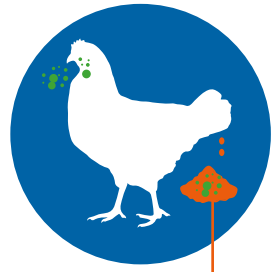
STEP 5
Follow the working lines

From the youngest to the oldest flocks.

HUMAN INFECTIONS WITH BIRD FLU VIRUSES RARE BUT POSSIBLE

CID LINES

Healthy looking birds can still spread bird flu

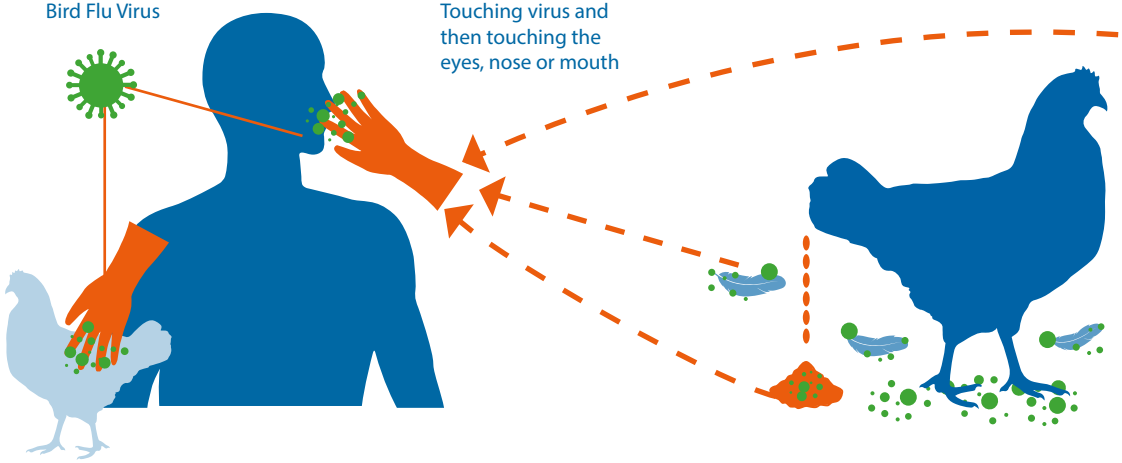


Bird Flu Virus

1. Direct Contact

Bird Flu Virus

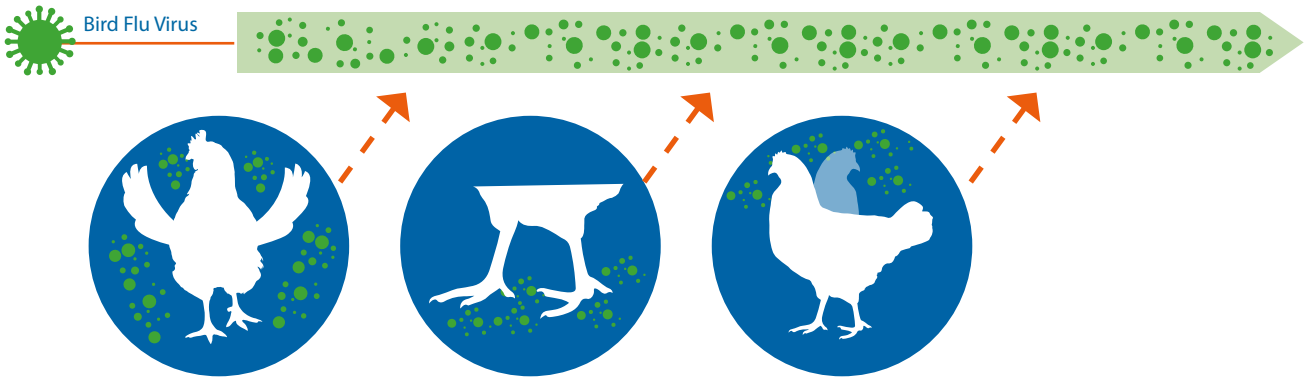
Touching virus and then touching the eyes, nose or mouth



2. Contaminated Surfaces

3. Bird Flu Virus in the Air (in Droplets or Dust)

Bird Flu Virus

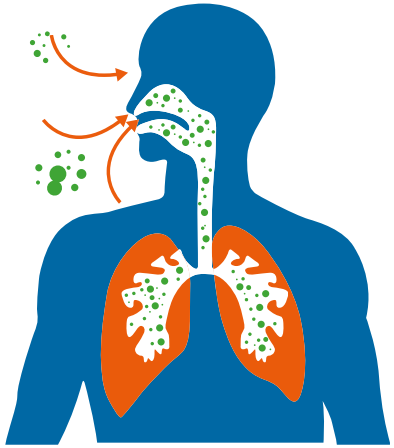


Flapping wings

Scratching

Shaking head

Virus enters through the eyes, nose or mouth



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

Virocid®/Kickstart

STEP 4
Renew

Renew the solution regulary: 2-3 times/ week

Personal Hygiene

Hand & boot 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 plm 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.
Boot dips: 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.

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

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).

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