ROSS
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THE INSIDE CHIRP

POULTRY NEWS VOL 32

BIOSECURITY

AVIAGEN MANAGEMENT ESSENTIALS

Aviagen®

AFTER EACH FLOCK HAS BEEN DEPLETED AND BEFORE THE NEXT PLACEMENT, WE NEED TO 'RESET THE MICROBIOLOGICAL CLOCK TO ZERO'

INTRODUCTION

Biosecurity creates hygienic conditions within the poultry house to minimize the adverse effects and to prevent the spread of disease, optimize bird performance and welfare, and provide assurance on food safety issues.

A biosecurity program should be:

ROBUST

MANDATORY

PRACTICAL

COST EFFECTIVE

PART OF THE STAFF TRAINING PROGRAM

FINANCIALLY RESOURCED

REVIEWED REGULARLY

POTENTIAL ROUTES OF DISEASE EXPOSURE:

1. Site cleaning must remove all potential poultry and human pathogens and minimize the number of residual bacteria, viruses, parasites and insects between flocks.

2. Providing a period of downtime in between flocks is key.

CLEANING AND DISINFECTION

STEP 1: PLAN WELL
Draw up a plan detailing dates, times, labour, maintenance and equipment requirements prior to depleting the farm.

STEP 2: INSECT CONTROL
As soon as the flock is removed and whilst the house is still warm, spray the interior of the house with a locally recommended insecticide. Wear appropriate protective clothing.

STEP 3: REMOVE DUST
Remove all dust and cobwebs from interior surfaces and equipment.

STEP 4: PRE-SPRAY
Wearing appropriate protective equipment, spray detergent solution throughout the house interior to dampen down dust. Close the curtains in open-sided houses first.

STEP 5: REMOVE EQUIPMENT
Remove all equipment from the house and raise automatic feeders and drinkers.

STEP 6: REMOVE AND DISPOSE OF LITTER
Litter must be removed to a distance of at least 3,2km and disposed of in accordance with local government regulations.

STEP 7: WASHING
Use a pressure washer with detergent. Ensure the detergent is compatible with the disinfectant to be used. Staff facilities and mortality room should be cleaned at this stage as well. Wash out and disinfect the egg store.

STEP 8: CLEAN THE WATER AND FEEDING SYSTEMS

WATER SYSTEM

- Drain the pipes and header tanks
- Flush lines with clean water
- Scrub the header tank to remove biofilm and scale, and drain.
- Refill tank with water and approved sanitizer (sanitizer must be the drinking equipment and be used at the correct dilution).
- Run the sanitizer solution through the drinker lines.
- Make up header tank to normal operating level with additional sanitizer solution. Replace lid and leave for a minimum of 4 hours (or as long as recommended).
- Drain and rinse with fresh water.
- If physical cleaning of water pipes to remove biofilm is not possible between flocks, biofilm can be removed using high levels (140ppm) of chlorine. Water lines must be flushed completely before birds drink.

Empty and clean out bulk bins and connecting pipes

FEEDING SYSTEM

- Empty, wash and disinfect all feeding equipment.
- Empty bulk bins and connecting pipes and brush out. Clean out and seal all openings.
- Fumigate wherever possible.

STEP 9: REPAIRS AND MAINTENANCE

Structural repairs and maintenance should be completed while the house is empty and clean.

STEP 10: DISINFECTION

Use an approved disinfectant which is effective against specific poultry bacteria and viruses. Follow manufacturers instructions at all times. Most disinfectants are not effective against sporulated coccidial oocysts. Selective coccidial treatments should be used by trained staff only. NB! Disinfectants are ineffective in the presence of dirt and organic matter and should not be applied to wet surfaces (this will cause dilution).

STEP 11: FUMIGATION

Where permitted, formalin fumigation should be completed by trained personnel, following local safety regulations and guidelines. Fumigate as soon as possible after disinfection; surfaces should be damp and the house warmed to a minimum of 21°C and an RH of less than 65%. Seal the house for 24 hours (no entry permitted). Ventilate the house to reduce formalin levels to 2 ppm before entry to the house is permitted. Repeat fumigation after the litter has been spread.

CLEANING EXTERNAL AREAS

1**: External areas around the house should be cleaned and disinfected thoroughly as well.**

All concrete areas should be washed and disinfected as thoroughly as the inside. Particular attention should be paid to:

- The area under the ventilator and extractor fans.
- Under feed bins.
- Access routes
- Door surrounds
- Gutters

2**: Ideally the house should be surrounded by an area of concrete or gravel (1-3m in width).**

If this is not possible, the area around the house must be free from vegetation and machinery / equipment, have a level surface and be well drained.

WATER

1: **Chlorination to give between 3 and 5 ppm free chlorine at drinker level is effective in controlling bacteria. Ultraviolet light can also be used to disinfect water.**

2: **It is a good idea to routinely complete a visual check of the water supply throughout the life of the flock.** Simply run water out of the end of the line and check for clarity. If a high level of dirt is visible, water line sanitation methods are not appropriate and need to be altered.

3: **Routine use of an approved sanitizer throughout the life of the flock is recommended.** Disinfecting the water lines once a month and routinely flushing them with clean water is good practice.

PREVENTING DISEASES TRANSMITTED BY HUMANS

1: **Prevent unauthorised access to the farm.** The perimeter of the farmshould be fenced and no entry signs posted.

2: **All people entering the farm should shower on and change clothing.**

3: **Maintain a visitor record.**

4: **Hands and boots should be sanitized when entering and leaving individual houses.** It is also a good idea to change to clean boots once inside the house.

5: **Clean and disinfect all equipment before bringing it into a house.**

PREVENTING DISEASES TRANSMITTED BY ANIMALS

1: **Wherever possible use an 'all in/all out' cycle.**

2: **A period of downtime between flocks will reduce contamination.** The longer the downtime, the lower the risk of disease transmission between flocks. A minimum downtime of 3 weeks is recommended on breeder farms and 7 days on broiler farms, but exact downtime will depend on the size of the farm.

3: **Keep wild birds out of all houses.**

4: **Do not leave equipment, building materials or litter lying around.**

5: **Clean-up spills immediately.**

6: **Store litter materials and feed inside an enclosed storage bin or building.**

7: **Maintain an effective rodent / vermin program.**

PREPARATIONS

1. DRAW UP A PLAN

Dates, times, labour, responsibilities & equipment.

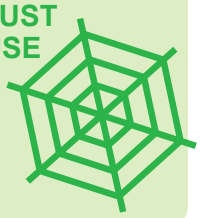
2. INSECT CONTROL

Spray house interior and all equipment immediately after birds have been removed.

3. DRY CLEAN EQUIPMENT

Dry brush and remove equipment. Empty feeders & hoppers onto litter; brush out feed bins.

4. REMOVE DUST FROM HOUSE INTERIOR



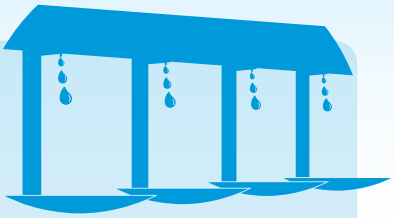
5. REMOVE LITTER

Dispose of, at least 3.2 km from the farm, in accordance with local regulations.

6. PRE-SPRAY TO REMOVE ORGANIC MATERIAL

Spray house interior and equipment using a low-pressure washer.

CLEANING



1. THE WATER SYSTEM

Drain, wash and disinfect the water system.

2. WASHING

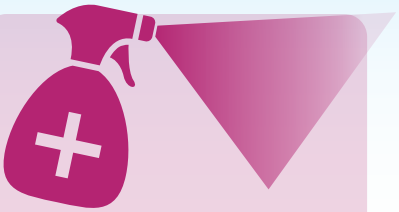
Wash interior of house and all equipment with a foam detergent compatible with disinfectant to be used.

3. EXTERNAL AREAS

Wash external building surfaces.Pressure wash external pathways and access routes.
Cut grass/vegetation around house.Clean all staff facilities and social buildings.

REPAIRS & MAINTENANCE

DISINFECTION



1. DISINFECTION

House interior and all equipment

2. FUMIGATION WHERE PERMITTED !

Houses are sealed and no entry is allowed during fumigation.

3. EVALUATION OF CLEANING AND DISINFECTION EFFICIENCY

No salmonella should be isolated and bacterial counts must be within acceptable limits. Consult local veterinarian for appropriate sampling procedure.

ADDITIONAL

1. RODENT CONTROL

2. PROTECTIVE CLOTHING & FARM HYGIENE

- Launder all farm clothing.
- Wash and disinfect boots.
- Refresh footbaths and hand sanitizers.

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