

BIOSECURITY FOR THE HATCHERY AND THE REARING FIELD

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What does biosecurity mean and why is there a need for it?

Biosecurity means taking steps to ensure good hygiene practices are in place to help reduce the risk of a disease outbreak, and to minimise it spreading.

A good biosecurity programme should be in place at all times and not just following an outbreak, which sadly is often the case. By introducing simple cleaning procedures in the hatchery and on the rearing farm using detergent sanitisers and disinfectants, the risk of disease occurring can be greatly reduced.

If we consider the dictionary definitions of hygiene, they are as follows:

- 1) The science concerned with the maintenance of health
- 2) Clean and healthy practices

It is the second definition that is of most interest to those of us involved in the game bird industry, for it implies that where we have livestock we must keep our buildings and equipment clean, as the surfaces of our buildings and equipment are in direct contact with the stock.

The correct use of detergent sanitisers and disinfectants can reduce the amount of harmful bacteria to such a level that they are no longer considered a danger to the stock, so there is every need for the use of a hygiene biosecurity programme.

Remember: Healthy stock are the most productive and therefore the most profitable.

Egg Handling

The newly laid egg is very fragile and if roughly handled the chick will fail to develop.

The shell does not need to be damaged for this to occur, eggs transported from the pens to the hatchery in a rough manner (eg. over rough terrain on the back of a pick-up truck) are likely to show a reduction in the number of eggs that develop successfully.

The need to prevent the egg becoming unduly contaminated cannot be over stressed. It is worth noting that in broiler production "floor eggs" are never used as they are regarded as potentially contaminated. Game bird eggs therefore start with an immediate disadvantage.

Ideally eggs should be collected twice daily. As this is not always practical the last collection should be as late in the day as possible so that the number of eggs left over night is minimal.

At times of peak production and in poor weather conditions (either very wet or very hot) collections need to be more frequent. Before and after all collections, hands should be washed using an antibacterial hand soap.

Egg washing and sanitising

As soon as possible after collection, the eggs should be washed using a recommended detergent sanitiser. This will prevent contamination being sucked into the egg via the shell as the egg cools. Because the egg is so delicate, it is important that only products which are specifically formulated for the washing of eggs are used.

As an extra precaution after washing, the eggs should be fogged or dipped using a recommended fogging solution, then placed in the egg store. The fogging process should be repeated when eggs enter the setter.

Egg storage

The ideal egg store will maintain eggs between 13°C and 17°C and at a relative humidity of 75%.

If eggs are stored outside these ideals, then the number of eggs that subsequently fail to develop may also increase.

As the numbers of eggs produced by each hen is limited, it is important to maximise the hatchability of those that are laid.

Cleaning and disinfecting

Before moving onto the disinfection of a hatchery or game farm, I must emphasize the importance of applying a detergent sanitiser prior to disinfecting either premises.

It is often the washing stage that lets many operations down. I am frequently surprised by the number of units that still rely on washing with just plain water.

For the best results it is essential to use a detergent sanitiser which will remove the debris quickly, leaving a clean surface to be disinfected.

However good a disinfectant may be, its effect will be reduced if the surface to be treated is not clean. So the better the cleaning, the better the final result will be.

The Hatchery

Incubators , setters, hatchers & equipment

The high temperatures and moist conditions found in hatchers and setters, create ideal conditions for bacteria to multiply, so at the start of the season these should be thoroughly cleaned using a detergent sanitiser. Once dry a recommended disinfectant should then be applied.

This process should be repeated whenever the machines become empty.

Due to increased production some setters are seldom emptied. If this occurs the daily application of a fogging solution is recommended.

Hatchery areas

Regular cleaning and disinfecting of all hatchery areas is also important in order to prevent disease transmission. Floors, walls, ceilings, etc, should be washed regularly and disinfected at the end of each day.

Foot dips containing a DEFRA approved disinfectant should be placed at the entrance to the hatchery for use by staff and visitors.

Staff Hygiene

It is important that staff wear protective clothing and have washing facilities available.

Rearing field hygiene

The first few days of a chick's life are critical if it is going to develop into a healthy bird and withstand the stresses and disease challenges that it will encounter during its life.

The following areas all need attention where birds are being reared:

1) **Foot dips**

Place foot dips containing a DEFRA approved disinfectant close to the entrance of buildings and pens. The solution should be changed at weekly intervals or more often if it becomes heavily soiled.

2) **Buildings etc.**

At the start of the season disinfect all buildings, sections and equipment to provide a safe environment for the bird.

3) **Drinkers and drinker management**

Birds require a constant supply of clean water. Too often drinkers are not cleaned out adequately, or on a regular basis.

Water in chick houses tends to warm up rapidly. It is then that the bacteria multiply.

Drinkers must be thoroughly cleaned and disinfected daily. After washing drinkers always dispose of dirty water away from the pens. If water is supplied from bulk storage tanks, it should be disinfected daily to reduce bacterial contamination.

This can be done by using chlorine tablets or one of the many products available for this purpose.

An absorbent disinfectant powder is also useful for sprinkling under drinkers, this will kill bacteria and absorb water.

Coccidiosis control

After release regularly disinfect pen floors, worn grass areas, section bottoms and pop holes in order to kill oocysts and other worm eggs, that may be present. This may be best done by using a virucidal and coccidicidal DEFRA approved disinfectant.

Some basic hygiene practices to minimise the risk of infection

- 1) When checking stock visit youngest stock first, then work to oldest. Any birds known to be sick should be visited last.
- 2) After picking up dead birds, wash hands. If no water is available, use an alcohol based hand liquid.
- 3) Do not leave dead birds lying around as this will encourage scavengers.
- 4) Do not leave spilled feed outside pens as this will attract wild birds and vermin.
- 5) Only allow essential staff onto the site.
- 6) Always wear protective clothing.

Not all disinfectants are suitable for every situation. In order to select the correct products contact your disinfectant representative. BioLink Limited are manufacturers and suppliers of specially formulated products for the game bird industry.