

# Biosecurity – how much risk do you self-insure?

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**B**iosecurity is about measures taken to reduce or preferably eliminate biological threats or risks to the operation, in the context of this article, a commercial hatchery.

The extent to which these measures are successful both initially when the hatchery is commissioned and thereafter will be one of the major factors influencing the commercial success of that business unit.

The extent to which known hazards are ignored or inadequately dealt with must, therefore, be seen as a risk self-inflicted.

The subsequent losses incurred, both monetary and in loss of customer goodwill and loyalty, which can be traced to these hazards is the amount of money the enterprise is prepared to pay, in some cases unknowingly, for not taking the necessary action.

This is what is meant by self-insured. For those who might be content to be complacent on the basis of successes to date without really knowing why just remember in insurance terms a '100 year flood' is a statistical term only because in the real world it could happen tomorrow.

## Look at the process

Growing chickens is a process. Therefore, to identify threats and risks an analysis of the process must be made to identify potential biological threats and consider options to eliminate or reduce them, such as change methods or equipment and, importantly, decide how and when to take measurements which will be used to monitor results.

It does not matter what you call this analysis but there is merit in using a HACCP type approach if for no other reason there is much written about the method and many training courses are available.

Biosecurity is a policy issue; its implementation is an operational issue. It should be taken into account in all major decision making processes that have an effect on production output.

It should start with the purchase

of the land, the design of the hatchery, particularly the choice of incubation equipment, the selection and training of personnel, the drawing up of SOP's and is an integral component of the management information system's output.

## Start at the breeder farm

Hatchery biosecurity starts well away from the hatchery at the breeder farm.

It is at the breeder farm that potential biological hazards, which can manifest themselves in the hatchery, originate.

Egg collection and storage are critical control points.

How they are handled can increase or decrease the biological load that has to be dealt with at the hatchery, for example the decision to collect floor eggs or not and if so when, hand decontamination between rows to reduce cross-contamination, disinfection of the eggs and trays at the collection station on the farm are key issues.

At the egg collection stations fumigation was yesterday's answer but with the development of modern, more safe and people friendly disinfectant products fogging systems, which are automated to operate at frequent intervals and which allow free movement in and out of the station, are in practice more effective.

## The transport leg

The process then moves from the breeder farm to the collection and transportation of the eggs from the breeder farm to the hatchery.

The risks will be compounded if several collection stops have to be made en route.

The most obvious issue will be the adoption of a common biosecurity programme to be followed

(and monitored) by all breeder farm sites. The policy decision of collecting or not collecting floor eggs can obviously have a significant affect on the potential biological load on all of the eggs being transported.

Temperature and disinfection are keys issues in the transportation leg where not only the selection of the disinfectant product but the equipment to apply it needs careful consideration.

Today, automated fogging systems can be fitted to the transport vehicle to dispense the disinfectant or even self-evacuating aerosol cans of disinfectants that can be used at every pick-up point to reduce the micro-organism load.

## At the hatchery

Within the hatchery itself the choice of floor and wall finishes can make the task of cleaning easy or problematic and as always 'the easy jobs get done'.

Build in obsolescence where necessary, for example into the design of the humidifying water reticulation pipe work so that pipes can be replaced easily in hard water areas rather than trying to cope with calcium build-up that can harbour bacteria.

When making purchasing decisions on incubation equipment consider those with built-in systems for dispensing disinfectant in both setters and hatcher's in preference to those which are designed purely to disperse fumigating products.

## Disinfectants

Many hatcheries year after year fail to cope with the seasonal *Aspergillus* spp challenge. What does that tell you?

It should at least indicate a more searching look at what are the best products available for the job and a serious review of the

criteria used in selecting these disinfectants.

Such criteria should include:

- 1Spectrum of performance.
- 1Kill rates and contact times.
- 1Stability.
- 1User safety and ease of use.
- 1Multiple-use.
- 1Practical issues like corrosiveness and their effects on plastic seals and pipes.

Disinfectants like everything else are evolving; what was good 20 to 30 years ago have been succeeded by modern, more complex formulations that give the same or better results without some of the drawbacks and limitations that end users have had to live with in the past.

## A multi-disciplinary approach

Let everyone involved have their say. In today's litigious climate and increasingly demanding health and safety regulations a multi-disciplinary team is the smart way of handling the task of drawing-up the success selection criteria.

Let the maintenance team have their say, let the incubation team have their say, let the cleaning team have their say, and so on through the various departments making up the hatchery team.

Nominate a suitably qualified person to research the attributes of different products but make sure the evaluation is based upon up-to-date and reliable data.

The veterinary associated with the hatchery would be an obvious choice for inclusion in this team because he has a science based background.

Once a choice has been made be sure to carry out measured trials of at least two months so that the data created is significant and hence more reliable.

Be sure to involve the disinfectant supplier's technical team because they know more about their product than you do and are a good source of shared application knowledge.

At the end of the analysis of the process do the cost benefit sums to implement the proposed changes and then decide to what extent you want to self-insure. n

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