

Biosecurity – people really are the weakest link

Whenever we look at biosecurity breakdowns invariably a major factor in the breakdown has been people. For this reason it is fair to regard people as our weakest link and in this article we will consider some of the reasons why this should be so.

'Bios' is the Greek word for life and biosecurity is the protection of life and, in the pig production context, this means the life and health of our pigs.

There are several facets to biosecurity and these include:

- Keeping disease causing micro-organisms out of the farm or unit.
- High standards of cleaning and disinfection of pens/buildings after a batch of pigs leaves them so as to avoid carryover problems.
- Ensuring the pigs have high levels of immunity (vaccination) against key diseases.
- Ensuring the pigs are in good condition and well nourished so they are bet-

ter able to counter or withstand infections.

- The minimisation of stress.

Let us start by considering how to keep disease out of the farm/unit.

Obviously the location of our unit and the source(s) of any animals or semen coming into the unit are important, but these are unlikely to be influenced by our staff.

If we continue our consideration of this point then it should be apparent that anything coming on to our farm/unit has the potential to bring disease causing micro-organisms with it into the farm/unit.

The likelihood of this increases if that item has had contact with other pigs outside and if, once it is on our farm/unit, it has direct contact with our pigs.

The probability of disease being transferred from one location to another by such means increases as the time interval between the two 'pig contacts' shortens.

For this reason many farms/units have a 'pig freedom rule' (usually 48 or 72 hours) for anyone coming on to the unit.

A similar rule, probably with a longer time interval, makes sense for any piece of equipment coming on to the unit.

But, what if everything coming onto your farm/unit is disinfected on arrival?

Well, here is the first situation where the people factor comes into play! That piece of equipment is dependent upon a member of your staff doing a thorough job at disinfection.

We all know numerous reasons why this might not occur.

This being so, it is prudent to ensure that the time between an item leaving its source and arriving at your farm/unit is as long as possible in order for all bacteria and viruses to have a significant 'die off' time. There is real value in giving items a downtime at some neutral, pig free location.

We must have the facilities, resources

and time to ensure that anything coming on to our unit is properly cleaned and disinfected. Key among these resources is time because a rushed job is invariably a job done badly and, in this case, that means disease causing micro-organisms surviving on the item that should have been properly cleaned and disinfected.

One of the big disease risks coming on to our farm is people. Firstly, there should be a 'pig freedom' rule and secondly we should do all that is practical to prevent them carrying disease causing micro-organisms on to our farm/unit.

On small farms this may only be a case of putting on overalls and boots that we provide. On larger farms/units this usually necessitates showering on to the unit and using clothes and boots that are provided by, and stay on, the farm/unit.

If showering on to a unit is going to work consideration must be given to providing the following:

- Privacy and a lockable cupboard for clothes and personal effects.
- A warm, dry, clean changing room.
- An adequate supply of hot water and adequate pressure through the shower head.
- Adequate supplies of soap and shampoo and a nail brush.
- Good quality, clean towels that are big enough.

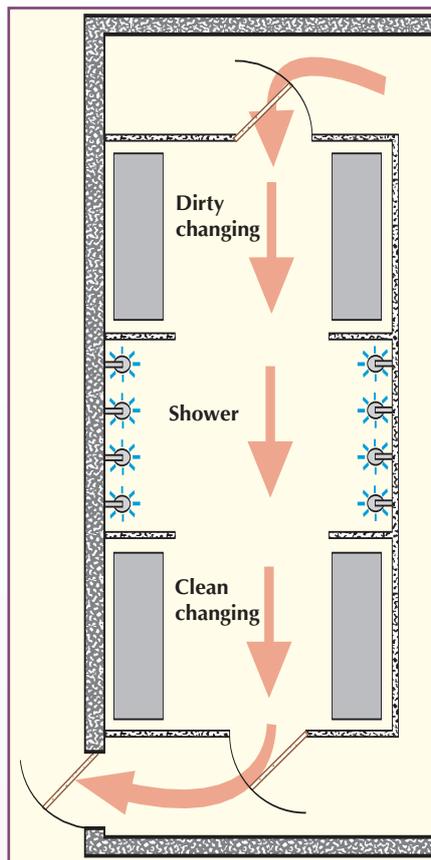


Fig. 1. Basic shower design as a part of the 'biosecurity barrier'.

- A mirror.
- Clothing of the right size that is clean and dry including underpants (can be disposable for visitors) and socks.

In addition, time should be spent clearly explaining to any visitor what is expected of him in the showering process. This information can be provided as a series of photographs on a laminated sheet.

Finally, we must ensure that every person has adequately showered. Obviously people will not let you go into the shower with them to check that they are showering correctly, so what can you do?

Firstly, make sure that they do not come through the shower too quickly. In this context I always remember coming out of a shower on an Asian unit to be told I had come through too quickly and that I was to go back in for a second shower!

Secondly, check the person coming out of the shower and especially their hair to confirm that it is wet or damp. One way to facilitate this is to have hairdryers in a communal area after the showers and not provide a hairdryer for each cubicle.

Then we come to items going on to the farm. Potentially anything going on to the farm could carry disease with it so let

Continued on page 21

Continued from page 19

us be sure that this risk is minimised. Do not let visitors (and staff) take anything on to the farm. Provide them with a notepad and pen. If the visitor is an engineer provide him with his basic tools – never let him bring his tool bag on to your farm/unit as it could very probably have been on other farms in recent days.

Mobile phones should not be allowed on farms. I even know one farm where a phone is provided and the visitor is only allowed to take his SIM card on to the unit! Here again do not rely on disinfection – the safest thing is always to keep the item off the farm/unit and away from your pigs.

UV light boxes are popular in Asia but it is amazing how many people do not know how they work!

For UV light to kill micro-organisms it must make contact with them. Thus, if an item is sat on the floor of a UV light box the micro-organisms on its underside will survive! It must be placed on a mesh or grid shelf several inches off the floor of the UV light box.

There is little point putting a notepad through a UV light box as it will be closed and so the UV light will not get to the surface of each and every page, some of which will have been contaminated when the notepad was used on the previous farm(s).

So, the golden rule must be never let anyone, and it does not matter who they are, take anything of their own onto your farm/unit as you do not know where it has been. You must provide it for them!

If something has to go onto the farm/unit we must know where it has come from and that it has had no pig contact.

If the item in question comes in 'outers' then at the entry point remove the items from their 'outers' and leave these off the farm as they will be the most likely thing to be contaminated. Even then, the incoming items should be sanitised or pass through a fumigation chamber.

Vehicles are a real danger! The poultry sector has tested numerous vehicles and it is amazing, for example, how many yield salmonella from the dirt in their wheel arches. If salmonella is there, what other disease causing micro-organisms are also there?

Obviously this dirt can fall off at any time and if the vehicle is on the farm we have introduced disease! Thus, the best policy is never to let a vehicle on to the farm/unit and if a vehicle is required on farm it should stay on the farm!

An interesting point to reflect on here is the farm that 'sanitises' inside the wheel arch with, say, a knapsack sprayer. Are they doing a good job?

Many would say that they are not because the spraying action is loosening the debris in the wheel arch and increasing the probability that it will drop off the vehicle and on to their farm!

All these activities rely on the human element. This being the case, let us consider how this can let us down.

Points to reflect on here include:

- People vary in their attention to detail and the effort they put into the job.
- People naturally devise short cuts, especially when the pressure is on.
- Most people need supervision but this can never be provided 100% of the time.
- When people would rather be at home, for example, when they are working late, at weekends or on days that are designated holidays, do they give the same amount of attention to the job or, for example, will they try to save time by skipping the mandatory showering in procedure?
- When management is not there are the rules broken. For example, in order to finish quicker do they take their sandwiches into the farrowing house?

The more staff we have the greater the likelihood of the rules being broken.

Thus, as a wise manager once said, 'if the pigs could look after themselves there would be no problems!

Problems occur because we introduce the human factor and, whether we like it or not, as managers we spend more time managing this than actually looking after our pigs! ■