



# Dairy Herd Biosecurity

Biosecurity is a word that has often been associated with disinfectant-soaked straw and endless welly and tyre washing. In reality it is a simple management system to reduce the risk of infectious diseases being introduced into, and spreading through a herd, thereby saving time and money.

Bio-security systems do not have to be complex, and in fact are much more proficient if they are not. What is important is that they are understood by all, and easily implemented.

## WHAT IS BIOSECURITY

### Biosecurity -

reduces/prevents the introduction of new diseases onto a farm from outside sources.

### Biocontainment -

reduces/prevents the movement of infectious diseases once they are on your farm once biosecurity has been breached.

(NADIS definition)

## The cost of disease

'Prevention is always better than cure' - because reducing the diseases entering a unit means less time is spent treating the diseases, drug and vet costs are reduced, and herd productivity is not compromised.

### Some examples of disease costs:

#### Contagious Mastitis

Costs the dairy industry around £100 million a year and a sub-clinical infection approximately £30 per cow per year.

#### Digital Dermatitis

Costs approximately £45 per cow per head.

#### BVD

Some previous outbreaks of BVD have cost over £50,000 and herd averages are around £63 per cow per year.

## GENERAL ADVICE

Talk to your vet about establishing your own herd biosecurity protocols so that losses can be contained.

Many biosecurity recommendations are common sense. We all know that thorough and effective cleaning and disinfection will minimise the spread of disease between animals but other basic biosecurity operating procedures can include protocols for:

- Manure handling
- Sanitation
- Housing different animal groups
- Pen/hutch use and disinfection
- Feed storage management
- Facility maintenance
- Boot disinfection
- On-farm disinfection
- Disposal of dead animals
- Animal Biosecurity. New animals to a herd or animals returning from shows increase between-herd risks
- Visitor Biosecurity. Visitors have the potential to introduce new diseases or spread existing infections to more animals.
- Wildlife Biosecurity. Concerns include feed and feed storage area, water sources, and herd living spaces.

## Have you got a farm specific biosecurity program?

We know that disease affects any operation's profitability. Reduced productivity from lower milk yields, a reduction in fertility, increased abortion and increased cull rates can be devastating.

Identify the diseases that are more likely to be a threat to your herd from this partial list of common infectious diseases so that you can develop and implement your own biosecurity measures.

|                      |                          |
|----------------------|--------------------------|
| Fluke                | <input type="checkbox"/> |
| IBR                  | <input type="checkbox"/> |
| Parasitic Bronchitis | <input type="checkbox"/> |
| BVD                  | <input type="checkbox"/> |
| Campylobacter        | <input type="checkbox"/> |
| Coccidiosis          | <input type="checkbox"/> |
| Johnes               | <input type="checkbox"/> |
| Lepto                | <input type="checkbox"/> |
| TB                   | <input type="checkbox"/> |
| Contagious Mastitis  | <input type="checkbox"/> |
| Digital Dermatitis   | <input type="checkbox"/> |

**The introduction of diseased or carrier animals can bring infectious disease onto your farm. Waiting until diagnosis and attempting to control disease spread can prove difficult and more costly.**

### Health planning

Health plans are the documents behind health planning which is a vitally important, dynamic process as the challenge to modern farming becomes greater due to bigger farms, bigger stresses and more productive animals.

Gone are the days when the herd health plan was a document pulled out only at times of inspection.

To be simple a health plan should have objectives which are SMART:

**SMART** objectives example:

1. **Specific** - use numbers or observations from the farm, eg. reduce clinical cases of mastitis and the bulk cell count.
2. **Measurable** - check for improvements or deteriorations, e.g. 50 cases per 100 cows or a BMSCC of 250,000/ml.
3. **Achievable** - be gradual, e.g. reduce mastitis.
4. **Relevant** - use objectives that will give you benefit, e.g. get out of the penalty band, and reduce the number of milking cow tubes used.
5. **Time based** - set realistic targets, e.g. over the next 12 months.

### Practical Bio-security

A basic quarantine, testing and treatment/vaccination regime need not be expensive.

The key areas to address are:

- Knowledge and records - Know the health status of the purchased animals; know the disease and how to prevent it. Keep records of visitors and feed supplies.



- Quarantine and treatment - Have a facility and timescale in place depending on the risks - 3 weeks is normally recommended but this may not be long enough, e.g. BVD carriers may not show any signs but shed millions of virus particles.
- Vaccination - may be used to prevent effects of introducing some diseases, but not all.
- Control wildlife populations, e.g. Johne's, TB, and Neospora.
- Boundaries - Design them to be stock-proof and prevent nose-to-nose contact - 3m is the accepted standard although this will not stop the spread of respiratory viruses or BVD.

- Culling or treatment of infected animals to reduce the burden on farms, e.g. *S.uberis* mastitis carriers or persistently infected BVD calves.
- Other risk factors - Co-grazing with sheep can increase the risk of BVD, Johne's and leptospirosis.
- Feeding of pooled colostrum may prevent scour, but will increase the risk of Johne's.

### FINAL WORD

A 'gold standard' bio-security protocol will also include the examination and testing of all purchased animals.

Several diseases are easily detected by examination and sampling of blood and milk to find carrier animals. Their risk to the herd can then be determined.

Unfortunately this is rarely done due to the perceived costs, however in the long term, it is a money-saving practice.

Prevention is ALWAYS better than cure - because reducing the diseases entering a unit means less time is spent treating the diseases.

For further information contact your local XLVets practice:

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