



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The Irish Agriculture and Food Development Authority



Biosecurity & Stock Movement

***Reducing disease
risk when expanding***

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Herd expansion

What does it mean for your herd?

Pros

- More cows
- More milk
- More money

VS.

Cons

- More cows
- More disease risk
- Less attention to welfare
- Less money

Why?

- purchase new stock
- increase farm fragmentation
(including contract heifer rearing)
- introduce new management systems



Diseases of relevance

Production	Infectious diseases
Mastitis	BVD
Lameness	Johne's disease
Milk fever	IBR
Displaced abomasum	Parasitic disease
Ketosis	Salmonellosis
Calf mortality	Lameness (infectious)

Less money.....

- **BVD (€63/cow/year)** *Stott et al., 2012*
- **IBR (250Kg less milk/cow/year)**
- **Salmonella (losses of up to €9400/year)**
- **Leptospirosis (losses of up to €1200/year)**
- **Neosporosis (losses of up to €1200/year)**

- **€ figures based on Moorepark Dairy Systems Model of 100 cow spring-calving dairy herd**

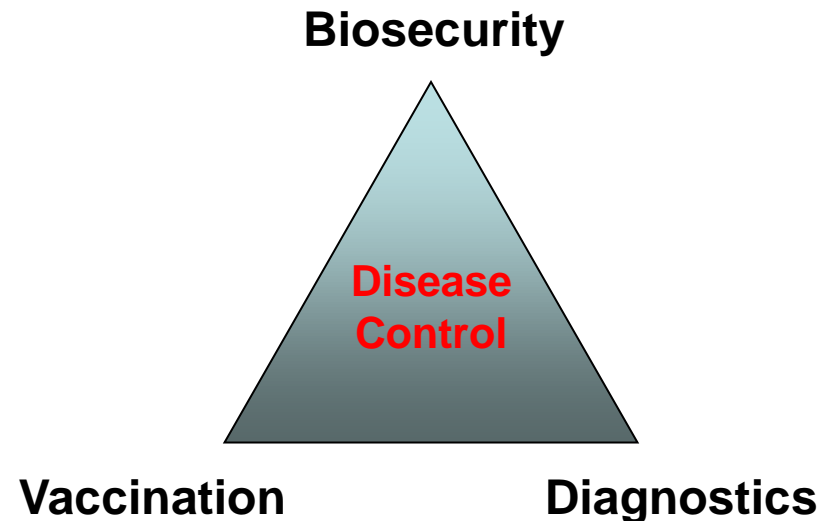
How do you minimise these losses?

Biosecurity

The spread of infectious disease can occur in two ways:

1. Newly introduced cattle or,
2. Passed to new introductions to the herd

An effective biosecurity plan at an absolute minimum should include a good purchasing strategy, quarantine procedures, vaccination protocols and pre- or post-movement testing of introduced animals



Step 1: Establish current disease status

- BVD
- IBR
- Salmonellosis
- Leptospirosis
- Johnes Disease
- *Salmonella*
- *Neospora caninum*
- Parasites



Bulk milk / blood / faeces

AHI programmes & ICBF data recording

Step 2: Sourcing cattle

- Buy all cattle from a single source if possible
- Minimise stress of mixing
- Better history for the herd



**Only
purchase at
high health
sales**

Step 3: Get a full history

- **Talk to the seller**
- **Request test results, previous health history and vaccination status**
- **Speak directly with the seller's vet**
- **Have your vet request a herd health history and test results**
- **Request a full interpretation of the results.**
- **(AHI programmes and ICBF)**

Step 4: Quarantine

Quarantine all newly introduced cattle



Isolate for at least 30 days in an area that is at least 3m from other cattle groups, with no sharing of feed or water troughs and no mixing of dung and urine

Quarantine groups separately

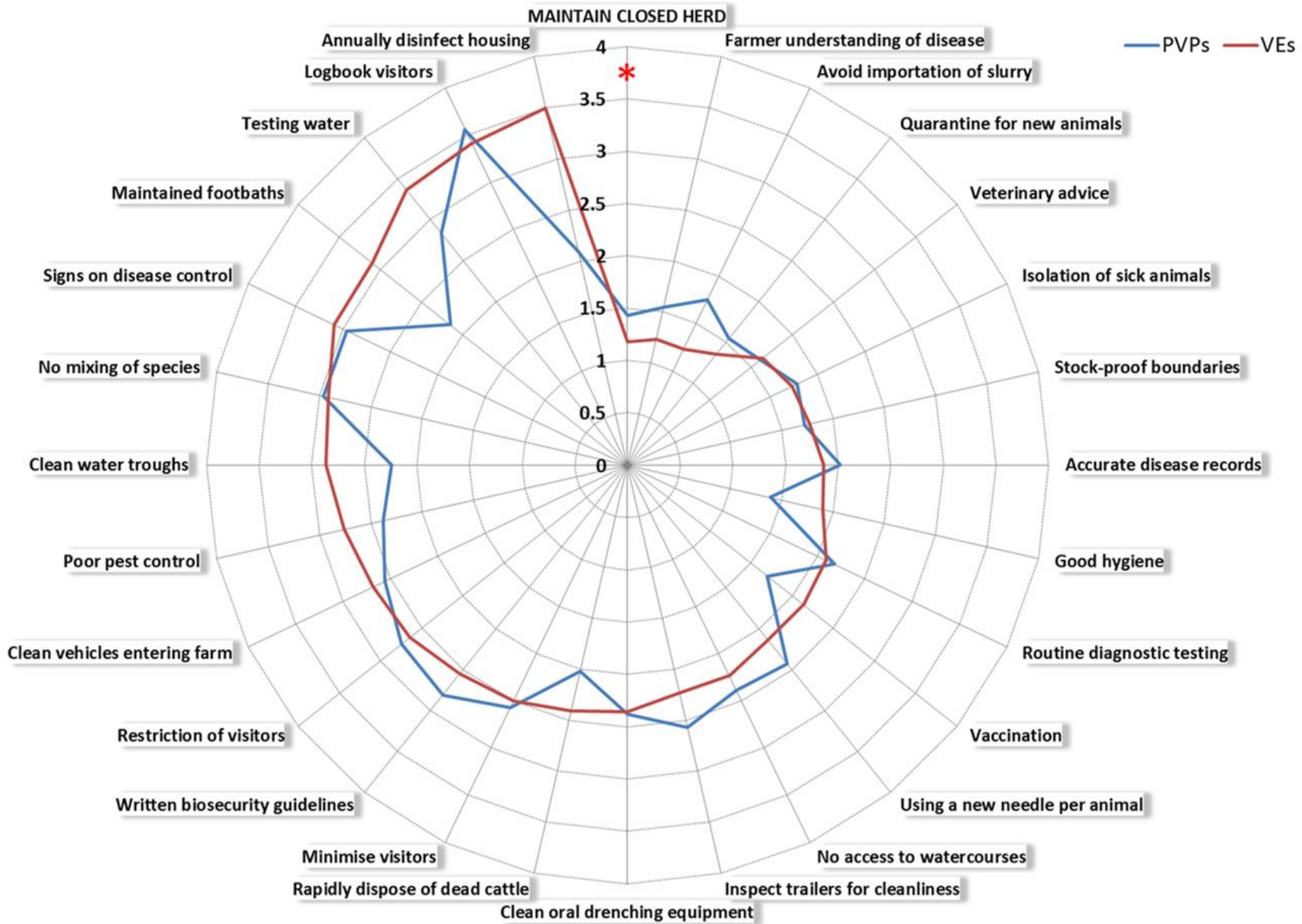
To ease;

- **use quarantine paddocks**
- **purchase dry animals**

Step 5: Clean housing

- Adequately clean and disinfected housing for purchases
- Use an approved Department of Agriculture disinfectant.
- A list of approved disinfectants is available on www.agriculture.gov.ie.





Step 6: Leptospirosis & Salmonellosis

- Zoonoses
- Leptospira and Salmonella survive in the environment
- Vaccinate all new purchases
- Naïve animals - two injections at an interval of 4 weeks (approx.)
- Single annual booster



Step 6: Additional vaccinations

- **Implement a suitable vaccination strategy**
- **Discuss with your vet - disease issues in the area as well as your test results**
- **Do not use vaccination as a replacement for testing**
- **Vaccines can be overcome by exposure to high levels of an organism e.g. BVD**



Vaccine administration

Bovine Viral Diarrhoea (BVD)

Product

* Bovidec

** Bovilis BVD



*** Rispoval 3 BRSV Pi3 BVD



**Dose
Site**

4ml

Subcutaneous (under the skin)
High side of neck

2ml

Intramuscular

4ml

Intramuscular

When

Not less than 7 days prior to service

4+ weeks prior to gestation

**** 3 weeks before periods of
stress of high infection (e.g.
regrouping, transport of animals
or start of autumn season)

Storage

Fridge 2°C - 8°C

** Fridge 2°C - 8°C

Fridge 2°C - 8°C

**Primary
Booster**

First shot: 5+ weeks before service
Second shot: 3 weeks later

First shot: 8+ weeks before
gestation
Second shot: 4 weeks later

First shot: 12 weeks +
Second shot: 3 - 4 weeks later

Every 12 months

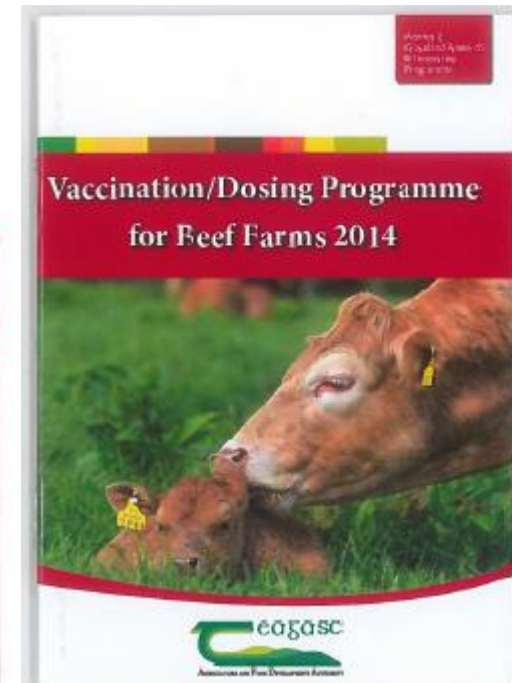
Every 6 months

Every 6 months

Vaccine records

Annual Vaccination Planner

Product	Animal		Dose Rate	Where given	Time of the year	Primary Vaccine (tick when complete)	Booster Vaccine (tick when complete)
	Adult	Calf					
Bovidec	Cows/ Heifers	-	4ml	Subcutaneous (SC)	Example: 1 st March 1 st February and 1 st March for heifers (Breeding starts 1 st April)	✓	✓
Bovilis	Cows/ Heifers	-	2ml	Intramuscular (IM)	Example: 1 st March 1 st February and 1 st March for heifers (Breeding starts 1 st April)	✓	✓



Step 7: Bulls

Test every purchased bull for

- BVD virus
- IBR virus exposure

Before purchase or while in quarantine

- Aim to source from good Johne's disease records

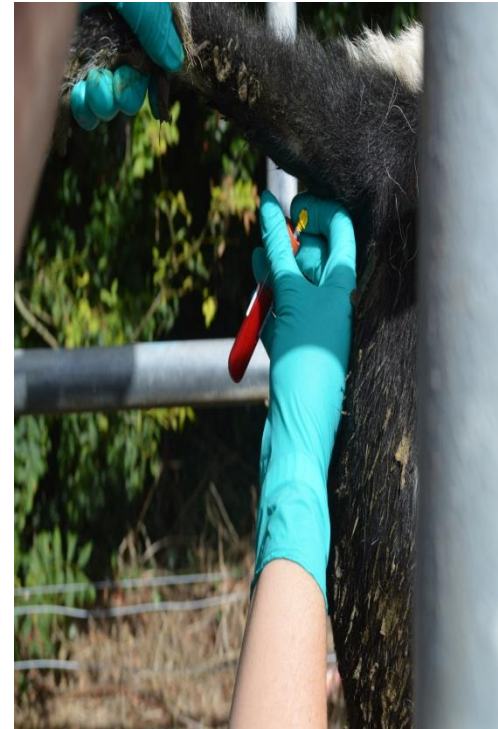


If positive;

- Remove from the farm immediately
- Do not breed from this bull
- Do not mix with the remainder of the herd
- Do not sell on for breeding (illegal to move PIs)

Step 8: Females

- Test purchased females either before purchase or while in quarantine
- Test for BVD virus and IBR antibody
- If economically feasible + herd history
- Test for Leptospirosis, Johnes Disease, *Salmonella dublin*, *Neospora caninum*
- Contact your vet for testing advice
- Decision: suitable vs. reject



NOTE : *In buying a pregnant heifer or cow, you are essentially buying two animals (dam and calf), both of whom need to be investigated in terms of their health status*

Step 9: Parasites



- Dose all new introductions
- Gutworm, lungworm, fluke



- Licensed medications
- Observe withdrawals

Step 10: Infectious lameness

Footbath all new cattle on arrival at the farm to prevent introduction of infectious causes of lameness



Step 11: Continuous monitoring & strategic vaccination

- **Discuss on-going testing and vaccination strategy with your vet**
- **AHI programmes**
- **ICBF data recording**
- **Increase value of your outputs & stock**

And finally;

Farm Safely

Acknowledgements

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