BVD is an expensive viral disease of cattle. In New Zealand, active BVD infection costs:

$70,000 / 400 dairy cows/year &

$3,500/100 beef cattle/year

BVD stands for "bovine viral diarrhoea."

HOW THE DISEASE WORKS:

Naïve animal:

- Has never been exposed to BVD
- If you test a naïve animal or group of animals, you will find **no BVD antibodies or BVD virus** in their blood, milk or body tissues

Transiently infected animal (TI):

- Has just been exposed to BVD for the first time—gets sick for 2-3 weeks
- Signs of transient infection include: pneumonia, diarrhoea, milk drop, high somatic cell count, **pregnancy loss, abnormal calves, immune suppression**
- If you test a TI, you will find **low levels of BVD virus in blood & milk**
- Transient infections are where the **main costs associated with BVD** are incurred; each transient infection occurring during mating costs approx. $90
- TI cattle don't excrete much virus, so **ARE NOT the major source of BVD spreading** through a herd

Immune cow:

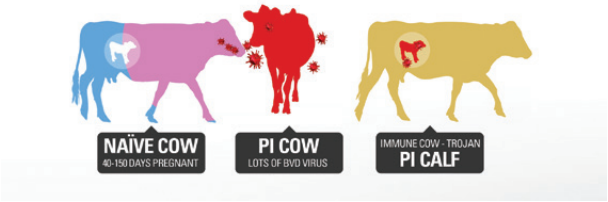
- Has been transiently infected at some time in the past
- If you test an immune cow or group of immune cows, you will find **no BVD virus, but will find BVD antibodies** in their blood and milk

HOW BVD WORKS

Persistently infected animal (PI):

- **The main source of BVD—contact with PIs are the main way naïve animals become transiently infected**
- **PI cattle shed high levels of the virus in their body fluids for their entire lives**
- PIs form when naïve cows are exposed to BVD when they are 40-150 days pregnant: the cow becomes immune to BVD but the fetus can become a PI—so PIs are born PIs and die PIs
- If you test a PI, you will find **lots of BVD virus in their blood, milk and skin, but no BVD antibodies**

WHERE PI CATTLE COME FROM



WHY IT'S IMPORTANT TO ACTIVELY CONTROL BVD:

- BVD spread from PI animals to naïve animals is **not predictable**
- If left alone, a herd containing a PI nearly always continues to have naïve animals in it, which continue to be at risk of getting sick (and continue to cost you money!)
- It is most cost effective to put **active BVD control** measures in place:
  - **Find and eliminate PIs**
  - **Prevent new PIs from being created**
    - > Biosecurity
    - > Vaccination (protects the fetus)

BVD FACT-SHEET 1

TOP FARMERS KNOW-HOW

WHAT IS BVD?

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