



## BVD Technical Working Group guidance on measures to minimise the risk of introducing a Trojan animal



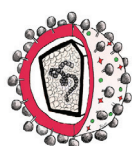
### What is a Trojan animal?

A trojan animal refers to a pregnant animal that is not itself persistently infected (PI) with BVD virus but which is carrying a PI calf.

### How do animals become Trojans?

Trojan animals typically occur when heifers or cows that have not previously been in contact with BVD virus are infected in early pregnancy (between approximately 30 and 120 days of gestation; Figure 1A). As a result the dam becomes transiently infected (TI) with BVD virus, which crosses the placenta to infect the unborn calf (Figure 1B). The immune system of the dam responds to the transient infection, resulting in the dam becoming virus negative and antibody positive, typically within 2-3 weeks. However, at this stage of pregnancy the immune system of the calf has not yet developed, resulting in it becoming persistently infected (Figure 1C).

Laboratory tests to identify Trojan animals are not available, so the **safest approach to protecting your herd is not to introduce pregnant animals.**



BVD virus



**Figure 1.** Development of a Trojan animal following infection of a susceptible animal in early pregnancy.

### If I must purchase pregnant animals how can I minimise the risk of introducing a trojan animal?

- **Discuss all aspects of herd biosecurity with your own veterinary practitioner.** Include the performance and interpretation of pre-purchase blood tests for antibodies to BVD virus (an animal that is negative for both virus and antibodies is very unlikely to be a Trojan).
- **Buy lower risk animals.** Purchase animals from herds where the risk of pregnant animals contacting BVD virus has been minimised
  - This should be lowest in herds that have acquired negative herd status (NHS).
  - Herds that have contained one or more PI animals in the previous year present a high risk, particularly where these PI animals have been in the herd after the breeding date of the purchased animals.
- **Avoid contact with other cattle.** Minimise opportunities for contact of pregnant stock with cattle of unknown status during purchase and transport.
- **Quarantine on arrival.** Isolate purchased pregnant animals until calved and tested with negative results.
- **Contract rearing = purchasing.** Pregnant animals being introduced following their return from contract rearing or other herds should be treated in the same way as purchased animals.