

# Are you doing your bit to overcome BVD?

*Contributed by Donna Knight, veterinarian and registered Hereford breeder.*

I thought I would put my thoughts to paper on the importance of thorough BVD testing in bulls that are to be sold due to some common misconceptions I encounter regularly. And why as a bull purchaser or seller, certain precaution should be considered.

BVD is an important disease in NZ when you consider that 80% of all herds (beef and dairy) have had exposure to the disease and 60% of all cattle have been exposed to the virus. Also for the beef sector, 65% of all herds have active infection (compared to only 15% of dairy herds). The reason for this being that the calves are kept on the cows and can be a constant source of infection if a PI (persistently infected) calf with BVD is present.

I'd like to share with you a case study as described to me by John Pickering, a vet from Wanganui.

In the winter a farmer purchased a stud bull. The bull had been semen tested (OK), scrotal diameter was 40cm, and had been tested BVD Antigen (Ag or virus) negative. This means that the bull is NOT a PI animal, but the bull had not been vaccinated.

At mating the bull was single sire mated to 40 cows. Heat detectors were used and the farmer recorded daily observations. The farmer became alerted when a lot of cows were returning for their 2nd cycle. He immediately withdrew the bull and replaced him with an older sire. When a vet examined the bull, his scrotal diameter was down to 36cm and his semen test showed the sperm were all dead.

When he was blood tested he was BVD Antibody (Ab) positive. It was thought he had been a Transiently Infected (TI) bull. This means that he would have been naïve to BVD when he entered the mob, and then contracted the BVD virus from the cows and/or calves. A TI bull will shed the virus in their semen for up to two weeks and this can affect semen quality causing temporary infertility for at least eight weeks.

The cows were also examined and blood tested and most cows were BVD Ab positive. One sick calf in the mob was tested and found to be BVD Antigen (Ag) positive. This calf was a PI animal.

PI animals are created when as a fetus (between 1-4 months gestation) they are infected with the BVD virus inside the cow. Their immature immune system doesn't recognise the virus as foreign and carries the virus for the rest of its life, shedding virus EVERYWHERE! Faeces, urine, saliva, milk, semen, uterine secretions and nasal discharges. Unfortunately it got worse - after scanning the farmer found one cow in calf to the new bull and the rest in-calf to the older bull. When the bull was retested his scrotal circumference was down to 30cm and his semen were still dead. He was rendered permanently infertile from the virus (generally uncommon).

I believe it is important farm policy for all stud/service bulls to be blood tested for BVD virus (once only) and vaccinated prior to mating every year. This ensures all PI bulls are culled, and clean bulls don't become TI bulls over mating.

Too many farmers are having the BVD Ag test done, but neglecting to vaccinate and then believing they are safe. Always check, ask to see a copy of the blood test report (which could accompany the TB declaration) and check when the bull was vaccinated and with what vaccine (a vet letter giving the details is a good idea).

If any bull is not tested and/or vaccinated, you will need to do it yourself. But remember the bull must be fully vaccinated before mating. The bull will need two vaccinations (3-4 weeks apart) in the first year, with the 2nd vaccination at least a week pre-mating. This means for a 1st Nov mating, to start vaccinating mid-September. If you or your clients buy bulls in the spring, is there time to do this?

BVD is an insidious disease with many farmers ignorant to the presence of BVD in their herd until a disastrous outbreak occurs. This is only one example where BVD can impact a farm. But as most (if not all) breeders are selling bulls into either the beef or dairy industry this is an issue. How would you as a breeder feel if a bull you sold, was a PI animal or became a TI bull which subsequently resulted in disastrous results for your clients? Do you think they would be repeat clients? This doesn't even take into account the effects BVD can have on young stock or the many fertility problems that can result (failure to conceive, early embryonic loss, abortion, developmental defects, stillbirths, or live but "dummy" calves).

So as the bull selling season approaches check your BVD policies on your farm. Are all of your sale bulls (both into the beef and dairy industries) blood tested for BVD Ag and vaccinated for BVD? Are you selling as safe a product as you can?

To ensure your good reputation and minimise any future bad experiences for your clients and yourself.

If you are single sire mating do you check the mob regularly? Would you know if your bull became temporarily infertile?

Do you give ALL of your stud bulls annual BVD vaccination boosters pre-mating? Are you checking that any bulls purchased are up to date with your farm policies? Have you sighted an actual blood test report or proof of vaccination?

I fully understand that this is just another expense that many of us can do without. But as many of our clients are becoming increasingly aware of BVD and requesting these blood tests and vaccinations, I believe that all of us as bull sellers have a responsibility to thoroughly test our sale bulls. Or your clients may look elsewhere for their bulls this year!