Bovine viral diarrhoea (BVD) is a surprisingly common viral disease of cattle and other ruminants.

It is serious and widespread in New Zealand with an estimated 60% of dairy and beef cows having been exposed to the disease.

BVD infection can have major impacts during mating and pregnancy.

It can cause infertility, embryo loss, abortions (slips), small slow-growing calves, deformed calves, and the birth of dead calves.

The most damage is done when BVD infects pregnant cows. If a cow contracts BVD in the first four months of pregnancy while the developing calf’s own immune system is forming, she could give birth to a persistently infected (PI) calf.

PI animals are the main source of infection within a herd.

Northland Share Farmers of the Year, Glen and Trish Rankin, know this all too well.

Four seasons ago, as lower-order sharemilkers with a herd of 300 cows, they had a serious BVD outbreak. The impact on the farm and the team was devastating.

Glen says the experience still makes him shudder when he thinks about it.
It started with a PI bull brought in for mating. The farm was part of three farms under the same ownership that were essentially closed herds, with all bulls born and reared on one location and provided for the other two farms.

BVD wasn’t considered a major risk because outside bulls weren’t being brought in. Glen runs two bull teams with three bulls in each team.

This bull didn’t look well, but Glen didn’t think much of it. It wasn’t until calving that the problem became apparent.

“We had 50-60 dead and deformed calves,” Glen says.

“There were blind calves, calves with bows in the neck and calves born dead. Many of the surviving calves were weak. Trish normally looked after the calves on her own, but when this happened we needed 2.5 labour units to help.

’The worst thing about it was they were 100kg healthy looking calves, so PI calves aren’t always scrawny animals.’

“We were tubing 42 calves several times a day and the worst cases were also on IV drips. We were struggling to keep them alive. Fifty calves made it through to weaning but after BVD testing, 12 PI calves had to be destroyed.

“The worst thing about it was they were 100kg healthy looking calves, so PI calves aren’t always scrawny animals.”

By the time the Rankins found out what caused the problem, they realised they had unwittingly been spreading the infection by keeping PI calves in the same pens as healthy animals.

PI calves are the main source of infection on farm because they spread large amounts of the virus for their entire lives. Control them and you control the disease.

Glen says they learned from the experience.

“We took pride in looking after our own and other people’s stock and we set high standards. It really was a case of shock and horror because we didn’t know what was happening. We were all beside ourselves. It was four years ago, but the experience is still fresh in our minds.”

Glen’s recommendations are:

- Learn about the disease so you can recognise the symptoms
- Know the status of all incoming stock by testing them for BVD virus
- Test home-reared and brought-in bulls for BVD virus before they move, vaccinate the negative bulls and cull the positive bulls
- Test replacement calves. If they are infected and proven to be PI they should be culled to prevent them from acting as a source of the virus for the rest of the herd
- Bulk milk test and make sure you also test milk that’s not going into the vat. Test in groups and then individual animals if a positive result occurs.

FACTS AND FIGURES

- BVD is widespread. Most dairy herds in NZ have been exposed to the virus
• It causes reproductive losses, an increase in general disease, reduced growth rates and reduced milk production. Losses are estimated at $70,000 per infected average-sized herd each year.
• Most BVD effects go undetected by farmers.
• The disease is maintained in a herd and spread to other animals by PI animals.
• Throughout their lives, PI animals excrete large amounts of the virus. When an early pregnant (first four months) cow gets infected with BVD the resulting calf is born PI.
• To control the disease, you must prevent PI calves by making sure early pregnant cows don’t become infected.
• Control is a four-step process:
  1. Define if BVD is in the herd.
  2. Assess the level of risk for your farm.
  3. Action a control plan to mitigate these risks.
  4. Monitor to make sure it’s working.
• Ask your vet to work through the process with you. They have the tools to help you to control the disease.
• Controlling the disease will have many benefits for you and your stock.

Thanks to the BVD Steering Committee for this information. To learn more about BVD visit www.controlbvd.org.nz (http://www.controlbvd.org.nz).

• Nita Harding is a DairyNZ veterinarian