

## Herd Health

In a closed herd or a semi-closed herd (with a proper quarantine in place), there should be only one major phase of testing for diseases required. Thereafter only regular monitoring is necessary.

The majority of the effort will be then keeping animal identification accurate and in biosecurity, both of which are management issues and largely under your control. It is a waste of your time and your money, attempting a herd health program without having addressed animal identification and biosecurity. These are the initial steps. Talk to your vet about the issues involved.

Talk to your vet about using their handheld (Husky, Psion, etc) to get you much better reports – with screening results based on age, sex, group, etc. Some very interesting patterns are often visible which can help you track down the source of the virus.

## Screening for BVD

With BVD virus being very widespread and most animals having been exposed to it, there is a lot of antibody to BVD in the Irish national cattle herd. If you test adult animals in almost any herd, you will turn up a high proportion of antibody-positive cattle.

It makes much more sense at this stage to concentrate on the virus itself. Remove the PI animals and you will remove the major source of virus from the herd.

Action is best taken before the start of your breeding season. Aim to removing PIs prior to when they can do most harm to your breeding herd.

### Step 1 - Is BVD a problem?

Unvaccinated calves, born in your herd, between 9 and 12 months old are the most useful group for testing BVD herd status. In these animals, maternal antibody should have declined to an undetectable level. If they do have antibody – they have been exposed to the virus this year so it therefore can be taken that BVD is currently circulating in the herd.

Depending on your particular farm management (out-farms, shed lay-out, pen sizes, length of calving season, no. staff, etc), BVD virus may be circulating locally among some groups of cattle and not in others. You must include cattle from each group for the herd screen to be of any value.

A single clotted sample from 10-12 of these calves (from each group) should be tested using the BVD antibody ELISA. Any positive results in this age group may be significant and should be discussed with your vet.

If there are less than 10 animals, test them all.



## Step 2 - Hunting down that BVD source

Once you have established that BVD is circulating in your herd, it is sound veterinary advice to remove all PIs.

The belt and braces approach is a whole herd blood test – this is probably best and simplest for smaller herds. A single clotted sample from each animal should be tested using the BVD antibody ELISA. Any negatives will automatically be tested for BVD virus – remember PI animals do not produce antibodies to BVD. All positive virus results are significant – indicating either a PI animal or acute infection and should be discussed with your vet.

Exclude calves less than 5 months of age. Calves between 0 and 5 months, usually have large amounts of colostral antibody, which can block the BVD virus ELISA.

If there are a small number of young calves, the BVD PCR can be used immediately but this is a more expensive test.

If there is a larger number, wait until the calves are all over 7 months and test them all together using the BVD virus ELISA.

Test each virus positive animal three weeks later to rule out any acute BVD infections.

### Special categories of cattle.

Transferring an embryo into a PI recipient will lead to either a PI calf or an abortion. Always send samples from any proposed recipients to check their BVD status, before using them.

Always test the bull(s).

Replacement heifers are a very important group – rule out any potential PIs in this group.

Quarantine and test all bought-in cattle.

### Tips

PI dams have PI calves. So by testing this seasons calves, you are indirectly testing their dams. This can drastically reduce the amount of testing necessary.

If you find a PI calf, always test the dam - she could be the original source of the virus. You must be very, very sure of your records if using this method. Otherwise you will miss PIs and the whole screen will fail. If in doubt, don't use it.

Remember PI calves often die early in the year so any dams without calves in the screen must be tested, individually.



A sample from the bulk milk tank can be used to rule out the milking herd [LINK]. Remember if the bulk milk tank results are positive you must then test each cow individually.

Any female, which is pregnant on the day of the test, should be clearly marked. If she tests positive for BVD antibody, she should be managed separately from the main herd. Once her calf is born and tests negative for BVD virus, she (and calf) can be reintroduced to the main herd.

### Step 3 – Keeping BVD out

For the current BVD situation in Ireland, it would be extremely foolhardy to establish a BVD naïve herd. To protect from inadvertent entry of the virus, [vaccination](#) has to be recommended alongside the other recommendations above (biosecurity, etc). Talk to your vet for the best vaccination program for your herd.

Once again, testing 10-12 calves aged between 9-12 months annually can check the BVD status of the herd. Once again, keep in mind your particular farm management (out-farms, shed lay-out, pen sizes, length of calving season, no. staff, etc), as BVD virus may be circulating locally among some groups of cattle and not in others.

Monitoring using bulk milk antibody at six monthly intervals OR following outbreak of reproductive or respiratory disease.

Any dam, with a history of embryo loss, abortion, or stillborn calves should be tested for BVD.

Any animal, with a history of clinical disease consistent with BVD infection, should be tested for BVD.

Keep all testing records and results from year to year.

It is generally regarded that herds complying with the above criteria will achieve freedom from BVD virus.

**These herds represent a much lower risk of BVD infection for themselves and for those farmers buying from them.**

