The AHWNI BVD Eradication Programme
Key Concept: Tissue Tag & Test

- **Offers**
  - cost effective sampling strategy
  - intensive surveillance of herds

- **targeted on age group with highest prevalence of PIs**

- **Identification as soon as possible after birth**
  - Early removal minimizes spread
  - Minimal inputs

- **Lifelong non-PI status for trade**

- **Two-for-one result (dam)**
  - Correct matching of calf to cow is essential
  - Non-PI calf means non-PI mother
  - PI calf MAY have PI dam
Tag Supplier Designation

• Criteria
  o Offer a tag and test package
    ▪ Lab linkage
  o Provide pre-addressed packaging (1 per 10)
    ▪ Exempt animal specimens
  o Capture series of permissions and undertakings to enable programme
    ▪ Mobile number
    ▪ PVP data sharing-opt in
    ▪ Compliance with guidelines
## Laboratory designation

http://www.animalhealthni.com/designated-testing-laboratories.aspx

<table>
<thead>
<tr>
<th>Name of Laboratory</th>
<th>Address</th>
<th>Website</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agri-Food &amp; Biosciences Institute (AFBI)</td>
<td>Stoney Road, Stormont, Belfast, BT4 3SD</td>
<td><a href="http://www.afhni.gov.uk">www.afhni.gov.uk</a></td>
<td>[Maraí Glennon](mailto:028 905 25749) or <a href="mailto:maraiglennon@afhni.gov.uk">maraiglennon@afhni.gov.uk</a></td>
</tr>
<tr>
<td>Biobest Laboratories Ltd</td>
<td>6 Charles Darwin House, The Edinburgh Technopole, Milton Bridge, Nr Penicuik EH26 0PY</td>
<td><a href="http://www.biobest.co.uk">www.biobest.co.uk</a></td>
<td>[Susan Duthie](mailto:0131 440 2620) or <a href="mailto:susan@duthie@biobest.co.uk">susan@duthie@biobest.co.uk</a></td>
</tr>
<tr>
<td>Enfer Labs</td>
<td>Unit TM7 Business Park, Newhall Naas, Co. Kildare</td>
<td><a href="http://www.enfergroup.com">www.enfergroup.com</a></td>
<td>[Michael Kennedy](mailto:00353 98 83500) or <a href="mailto:michael.kennedy@enfergroup.com">michael.kennedy@enfergroup.com</a></td>
</tr>
<tr>
<td>Irish Diagnostic Laboratory Services (IDLS)</td>
<td>Johnstown, Naas, Co. Kildare</td>
<td><a href="http://www.irish-equine-centre.ie">www.irish-equine-centre.ie</a></td>
<td>[Prof. Ann Guilfoyle](mailto:08573 18 8626) or <a href="mailto:equilab@equine-centre.ie">equilab@equine-centre.ie</a></td>
</tr>
<tr>
<td>National Milk Laboratories</td>
<td>52 Kelvin Avenue, Hillington Park, Glasgow G52 4LT</td>
<td><a href="http://www.nationalmilklaboratories.co.uk">www.nationalmilklaboratories.co.uk</a></td>
<td><a href="mailto:07974333269">Ben Bartlett</a> or <a href="mailto:bbarc@nml.co.uk">bbarc@nml.co.uk</a></td>
</tr>
<tr>
<td>SACC Veterinary Services</td>
<td>Allan Watt Building Bush Estate, Penicuik, Midlothian Scotland EH26 0QE</td>
<td><a href="http://www.sac.ac.uk">www.sac.ac.uk</a></td>
<td>[Brian Hose](mailto:+44 (0) 131 553 3139) or <a href="mailto:brian.hose@sac.ac.uk">brian.hose@sac.ac.uk</a></td>
</tr>
<tr>
<td>The Cattle Information Service (CIS)</td>
<td>Spur House Stafford Park One, Telford, Shropshire TF3 3BD</td>
<td><a href="http://www.thecis.co.uk">www.thecis.co.uk</a></td>
<td>[Dona Saddall](mailto:01923 695391) or <a href="mailto:donna.saddall@thecis.co.uk">donna.saddall@thecis.co.uk</a></td>
</tr>
<tr>
<td>FarmLab Diagnostics</td>
<td>Duh, Co. Roscommon, Ireland</td>
<td><a href="http://www.farmlab.ie">www.farmlab.ie</a></td>
<td>Email: <a href="mailto:john.gilmour@farmlab.ie">john.gilmour@farmlab.ie</a> or Office: +353 (0) 71 96 30792</td>
</tr>
<tr>
<td>Agri Diagnostics Ireland Ltd</td>
<td>Dunrane, Dromin, Co. Kerry, Ireland</td>
<td><a href="http://www.southernscientificireland.com">www.southernscientificireland.com</a></td>
<td>[Kieran O’Connor](mailto:603 64 693833) or <a href="mailto:kconner@southernscientificireland.com">kconner@southernscientificireland.com</a></td>
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Voluntary BVD Programme Headline Figures

Began Jan 2013

- 5361 Herds Participating
  - 51% Beef
  - 30% Dairy
  - 19% Dual

Of the Total Animals in NI
- 28% Beef
- 60% Dairy
- 12% Dual

- 407,538 Direct Negative Test Results
- 224,866 Indirect Negatives

- 2074 Direct Positive Test Results
- 320 Indirect Positives (Dams)
- 12 Offspring Positives

- Overall PI rate 0.50%
2015 Herd prevalence (INIPOSINC)

10% overall

10% overall
Number calves INIPOSINC per herd

95% pos herds have ≤ 4 PI calves
Key Requirements for the BVD Compulsory Programme (Phase 1)

- **All** calves born on or after 1\textsuperscript{st} March 2016 must be tissue tag tested for BVD (including stillbirths and abortions)

- The keeper of a bovine calf, born on or after the coming into operation of this Order, shall ensure that as soon as possible after birth and in any event within 20 days of birth—a tissue sample is taken from that bovine calf; and the tissue sample is dispatched to an approved laboratory within 7 days of taking the tissue sample.

- **Only** animals born on/after 1\textsuperscript{st} March 2016 with a **negative** BVD test result will be permitted to move (except to rendering/under license). Re-test animals with inconclusive or inadequate tissue sample

- All purchasers of animals born after 1\textsuperscript{st} March 2016 should satisfy themselves that the animal has a valid negative BVD test (e.g. a printed certificate from the AHWNI website)

- DARD will enforce the programme by retrospectively following up traded PI cattle
BVD Compulsory Programme (Phase 2)

- Envisaged progression following successful Phase 1 tag and testing will be the commencement of a Phase 2 herd level monitoring programme.
- Earliest adopters are likely to achieve negative herd status earliest and progress to herd level monitoring.
- Focus of Phase 2 will be on clearing residual infection from herds with evidence of infection.
- Requirements to progress to phase 2:
  - Substantial reduction in incidence of PIs
  - Development of industry and DARD database support.
Legislative Provisions

• Option to re-test positives allowed by legislation

• Allows confirmation that a calf with an initial positive result is Persistently Infected (PI) rather than Transiently Infected (TI)

  - Blood sample collected by a veterinary surgeon
  - After an interval of 3-4 weeks
  - Allow TI calf to develop immunity and become virus negative
Sampling soon after birth
Test results:
- - - +
NEG NEG PI
Sampling the older calf

TI  TI  PI
Confirmatory testing (3-4 weeks later)

Test results:

- - +

NEG NEG PI

90% IniPos remain Positive
20% IniInc become Positive
Are wildlife affected by BVDV?
Wild deer goats & sheep are affected. Considered to represent a low risk of infection to cattle as evidenced by other eradication programmes and Irish serological surveys.

If an animal tested negative for BVD virus and was sold, can that animal pick up virus during trade?
Test is consistent with that individual not being PI.
Can still become transiently infected (TI) & can if pregnant lead to ‘Trojan PI’
Isolate such animals for 3-4 weeks. Ensure calf is promptly tested at birth.

How do I access my BVD results?
Log on to results database at www.animalhealthni.com using Government Gateway ID and password.
Results also communicated by SMS and/or letters

If I have surplus official ID tags left over, can these be used after March 2016?
Yes. Supplementary (button) tags can be ordered from designated tag suppliers
These tags must bear the full identification number of the animal

If I am notified that the tissue sample tag is empty - what should I do?
Animal needs re-sampled using either a blood sample collected by a vet or using a supplementary (button) tag bearing the matching ID number. Contact your tag supplier for advice.
There was a delay in registering the calf but a sample was submitted for BVD testing. When will the result come back? AHWNI is only able to issue results when the calf has been registered. Therefore, it is essential calves are registered promptly.

Why can’t we blood sample all of the cattle in Northern Ireland and remove the disease in one year? Logistical challenge – would be done on a rolling basis therefore risk of ongoing transmission from PI cattle not detected quickly. Would not give a test result for the unborn calves being carried during that year, requiring all calves to be tested after birth anyway. Current programme of testing calves automatically gives a result for the dams.

Do you test stillborn calves? Yes, all calves born after 1st March 2016 must be tested. The screening of all calves born (including stillbirths, abortions and calves which die before tagging) each year provides intensive surveillance of each herd.
If a re-test is required, how long should be left between the two tests?
It is recommended that 21 days are left between first sample collection and second (blood) sampling. An interval of at least three weeks will allow time for virus to be cleared from a transiently infected (TI) animal.

How stable are samples after collection?
It is recommended that samples are sent to the laboratory as soon as possible after collection but in any event within seven days. In the interim, it is recommended that samples are stored in a cool, dark place and ideally in a non-domestic fridge.

What are the penalties for breaching the legislation?
Knowingly selling a BVD positive animal may lead to
  imprisonment for up to one month
  or receive a fine of up to £5,000
  or, in the case of more than five animals, receive a fine of up to £1,000 per animal
under the Diseases of Animals Order.
Anyone found guilty of selling an infected animal may also be in breach of the Sale of Goods Act which could result in further financial penalties.
Can the tissue sample be used to identify other diseases?
These samples are not suitable for testing for other diseases.

How soon can you sell a calf after you tissue tag the calf?
A calf may be sold as soon as a negative result is received. Laboratories designated to provide this testing have undertaken to report 95% of results within 7 working days and 99% within 10 working days, average turnaround of 5 days or less. In practice, many of these are available within 2-3 days. If the calf is positive on re-test, confirming it as PI, then the dam requires a negative test before being sold (except for disposal, directly to the factory or under license). If testing shows the dam to be PI then all offspring and descendants of that animal are considered to be PI and may not be sold (except subject to the exceptions above) without a negative test result.

If a DAM has previously had a negative calf and then has a positive calf does she need to be tested?
Yes, unless and until the dam is directly tested (or her positive calf is retested as negative) there will be a suspect status (DAMPI) assigned to her.

If a dairy cow is a PI what do I do with her milk?
There is no known human health risk from BVD so milk from a PI cow may enter the bulk tank as normal. Feeding milk from a PI cow directly to calves will pass virus to them. PI animals should be culled as soon as possible after they are identified.
Will marts display the test status of animals?
Currently no. Marts will require evidence of negative infection status from vendors most simply using a declaration certificate from the AHWNI database. Signing an MC2 form is a statement that the animal is under no restrictions.

What should I do if I have a PI animal?
PI calves should be culled as soon as they are identified. There is no compensation available for their disposal.

Can you sell older, non-tested BVD animals, either in the mart or privately?
Yes. The Bovine Viral Diarrhoea Eradication Scheme Order (NI) 2015 only requires that calves born on or after 1st March 2016 must have a negative test result.

Can I move an animal to slaughter without testing?
No. Movements of animals born after 1st March are not permitted without that animal being tested as negative. Animals with non-negative test results can only be moved for disposal, slaughter or under departmental license.

If a PI calf is identified is the herd restricted?
No. Only the PI calf and its dam may not be sold. If the calf is retested with a negative result then both it and the dam may be traded again.
Does vaccinating cows have any effect on virus test results?
In most cases no. Most licenced vaccines contain killed virus which will not cause false positive results. A new live vaccine, Bovela, could be detected and give a false positive result. Ensure any animal (particularly adults) being blood tested have not been vaccinated within 21 days.

What is the role of vaccination in the BVD eradication programme?
Decisions on the use of BVD vaccine, including when to stop a vaccination programme, are herd-specific and should be taken following discussion and advice from your own private veterinary practitioner.

Consider biosecurity and the likelihood of introduction of infection through introduced animals direct contact (e.g. at boundaries, shows and sales) and indirect contact (e.g. contaminated environments, equipment, clothing or visitors).

I’ve been testing for BVD, why should I have to continue testing?
The BVD control order will require all herdowners to ‘Tag and Test’ all calves born on or after 1st March 2016. This will include those herds that have been testing within the voluntary phase of the BVD. Those herds that have successfully controlled infection during the voluntary phase, the purpose of ongoing testing is to ensure:
- infection is not re-introduced into the herd
- PI animals are not inadvertently sold onwards.
AHWNI is currently seeking ways to recognise herds that have been testing for three or more years and have a high probability of being uninfected.