

Quick reference guide to testing for Cattle Health Scheme herds



Summary of initial testing required for each disease

	Testing required	
BVD	<p><u>BVD antibody check test:</u> Five per group aged 9-18 months old or Ten per group if sampling down to 6 months old (i.e. if none or insufficient aged 9-18 months old).</p> <p>If fewer than seven are tested in total then one of them should also be tested for BVD antigen</p> <p>Any bought-in cattle that have not been in contact with sampling group need to be tested for antibody & antigen</p> <p>Dairy herds: Bulk milk antibody test in addition (unless vaccinated against BVD*)</p>	<p>Or all calves born into herd (including abortions & stillbirths) tested for <u>BVD virus/antigen</u> (using ear tissue from birth or bloods from one month old)</p>
Johne's	<p>All cattle of two years and older tested using blood (or faeces samples. Latter can be pooled in lots of up to five). Or quarterly milk testing of all cows & blood test any others over 2 years old annually (e.g. bulls)</p>	
IBR	<p>All cattle of 12 months of age and older blood tested (individual milk testing can be used for the cows that are milking). Dairy herds: Quarterly bulk milk antibody testing in addition to above</p>	
Leptospira Hardjo	<p>All cattle of two years and older in breeding herd plus any breeding replacements aged 1-2 years old blood tested (individual milk testing can be used for the cows that are milking) Dairy herds: Quarterly bulk milk antibody testing in addition to above</p>	
Neospora antibody	<p>All female cattle of two years and older plus any female replacements aged 1-2 years old blood tested. (Plus any other bought-in females for breeding). Individual milk testing can be used for the cows that are milking instead of blood</p>	

BVD virus

Antibody check test: Five blood samples per group aged 9-18 months (or if sold before 9 months old then 10 samples per group down to six months old). If fewer than seven are tested in total then one of them should also be tested for BVD antigen.

Any non-homebred animals that have not been in contact with the youngstock groups must be blood tested for antibody and antigen/virus in addition.

Alternative testing (if majority of calves sold before 9 months old):

Virus/antigen test on all calves born into herd (includes abortions/stillbirths) – blood or ear tissue or testing of abortion material (foetal fluid for antigen or spleen for PCR).

Dairy herds

Bulk milk BVD antibody test (unvaccinated herds). If negative – repeat quarterly bulk milks. If antibody positive test pooled milk from first lactation heifers.

*Bulk milk can be tested for virus to ensure there are no PI animals contributing to the bulk tank

In addition, antibody check test (as per above) to be done on successive groups of calves over a 12 month period (or test all calves born into herd (including aborted and stillborn) for antigen/virus in two successive years).

Annual testing in BVD accredited/vaccinated monitored free herds:

Beef herd: repeat antibody check test on youngstock annually (see above table) or continue virus/antigen testing on all calves born (or can switch to the antibody check tests).

Dairy herd:

- Continue testing bulk milk or pooled milk from first lactation heifers on quarterly basis (unless vaccinated against BVD in which case just do antibody check test on youngstock pre-vaccination or virus screen all calves born).
- Plus antibody check tests on successive calf crops (9-18 months old) or virus test all calves born.

Added animal testing:

Unless bought-in animals are being added direct from a BVD accredited herd (in which case testing is optional) then:

Test for BVD antibody and antigen/virus at least 28 days after entry to quarantine (an earlier additional test can be carried out if desired but must be repeated at this stage).

Animals with signs suspicious of BVD virus:

Blood test for antibody and virus/antigen and repeat these tests after 21 days, whilst in isolation.

Cows/heifers that abort, have stillborn calves or have evidence of resorption must be blood tested for BVD antibody. Virus/antigen testing is optional.

Milk monitoring programme:

Quarterly bulk milk sample

Johne's disease programme

Annual herd blood test of all cattle two years of age and older & evidence of Johne's health plan required

Alternative testing:

Faeces testing annually (tested by culture or PCR. Can be pooled in lots of up to five). OR

Individual milk samples on quarterly basis (any cows not being milked and bulls need to be blood sampled in addition)

Annual testing for Johne's programme:

To progress/maintain status annual herd tests of all cattle of two years old and older are required at 12 month intervals (using blood or faeces) or quarterly individual milk tests over a 12 month period.

Once a herd has gained RL1 status and has had two subsequent consecutive clear annual herd tests there is the option to move to biennial testing (providing there are more than 20 homebred breeding cattle of two years or older in the herd). This involves testing homebred animals two years old and older every two years. In the intervening year a non-homebred screen must be done, 12 months from the previous test, and any cattle (two years old and older, not including finishers) that are scheduled to be culled must also be tested. If further animals are to be culled before the next herd test is due they must also be tested. Blood and faecal samples should be collected. The bloods would be tested initially and the faecal samples would be stored in case any confirmatory testing is required.

Added animal testing (mandatory for herds in RL1-4 and advised for RL5 herds)

Unless they are animals that have been born and have resided in a RL1 herd since birth (in which case testing is optional) then:

All cattle must be tested using blood for antibody and faeces for PCR or culture (irrespective of their age)

Animals with signs suspicious of Johne's disease:

Blood and faeces samples to be tested from cattle six months of age and older with weight loss and/or diarrhoea if Johne's disease cannot be ruled out by vet. Blood – antibody ELISA test. Faeces – MAP PCR test.

IBR programmes (there are two IBR programmes available)

1. **IBR accreditation programme:**

Initial herd test requirements:

All cattle of 12 months old and older plus any bought-in cattle under 12 months old need blood testing (or individual milk samples can be used as an alternative for the cows that are milking)

If clear carry out second qualifying test 4 weeks to 12 months later (same testing as above)

Annual test after gaining IBR accredited status:

Beef herds: blood test every 12 months a statistical proportion of each separate group of cattle aged 12 months old and older (figures from table below). This would usually mean a sample from the cow herd and a sample from the followers. All bulls, any non-homebred cattle that have originated from a non-accredited herd plus all IBR marker vaccinated must be tested annually in addition

Dairy herds: quarterly bulk milk testing is required. In addition, every 12 months a statistical proportion of youngstock from each group aged 12 months and older must be blood sampled. All

bulls, any non-homebred cattle that have originated from non-accredited herds plus all IBR marker vaccinated must be tested annually in addition.

2. IBR Vaccinated Monitored Free programme:

Initial herd testing requirement:

Test all cattle of 12 months old and older plus any bought-in cattle under 12 months old (blood samples or individual milk samples can be used)

If herd test clear carry out second qualifying test 4 weeks to 12 months later (same testing as above)

To maintain IBR Vaccinated Monitored Free status:

Beef herds: all breeding stock plus any animals that are non-homebred and originated from a herd that was not IBR accredited must be blood tested annually.

Dairy herds: quarterly bulk milk testing is required. All breeding stock plus any animals that are non-homebred and originated from a herd that was not IBR accredited must be tested annually (bloods or individual milk samples can be used).

IBR milk monitoring programme

Quarterly bulk milk testing for IBR virus

Added animal testing

Quarantine testing is optional for animals sourced direct from IBR accredited herds. If cattle are from a non-IBR accredited herd (or from an accredited herd but purchased through a market) they must be placed in quarantine and tested after a minimum of 28 days (an earlier additional test is advisable either before purchase or early in quarantine period).

Animals with signs suspicious of IBR virus:

Blood sample at time of clinical signs and again after 14-21 days to check for seroconversion to IBR using IBR antibody ELISA (IBR indirect or IBRgE ELISA as appropriate). Optional nasal/ocular swabs/BAL at time of clinical signs for IBR PCR.

Any cow/heifer that aborts, has a stillborn calf or has evidence of resorption must be blood tested for antibodies to IBR virus (IBR indirect or IBRgE ELISA, as appropriate). Advisable to submit abortion material for testing.

Leptospirosis programmes (there are two Lepto programmes available)

1. Initial Lepto accreditation programme testing requirements:

Herd test of all cattle of two years old and older plus any breeding replacements aged 1-2 years old plus any non-homebred animals. Bloods or individual milk samples can be used.

If clear then repeat herd test, as above, six to 12 months later.

Annual testing to maintain Lepto accredited status:

Beef herds: a statistical proportion of the breeding herd, of one year old and older, from each separately managed group (e.g. cow herd and followers) must be blood tested according to the figures in the table below. Breeding bulls must be tested.

Dairy herds: quarterly bulk milk testing is required. In addition, a statistical proportion of the breeding herd, of one year old and older, from each separately managed group (e.g. cow herd and followers) must be tested according to the figures in the table below. Bloods or individual milk samples can be used. Breeding bulls must be tested.

2. Initial Lepto Monitored Free programme testing requirements (same testing as the accreditation programme for first test):

Herd test of all cattle of two years old and older plus any breeding replacements aged 1-2 years old plus any non-homebred animals. Bloods or individual milk samples can be used.

After 6-12 months repeat the herd test of all cattle of two years old and older plus any breeding replacements aged 1-2 years old plus any non-homebred animals. Any animals previously identified as antibody positive can be excluded.

Annual testing to maintain Lepto Monitored Free status:

Every 12 months repeat the herd test of all cattle of two years old and older plus any breeding replacements aged 1-2 years old. Any animals previously identified as antibody positive can be excluded. Bloods or individual milk samples can be used.

Added animal testing:

Quarantine testing is optional for animals sourced direct from Leptospirosis accredited herds. If cattle are from a non-Leptospirosis accredited herd (or from an accredited herd but purchased through a market) they must be placed in quarantine and tested after a minimum of 28 days (an earlier additional test is advisable either before purchase or early in quarantine period).

Animals with signs suspicious of Lepto:

Blood test at time of clinical signs and repeat 28 days later, whilst in isolation. Test using L.Hardjo ELISA or MAT.

Any cow/heifer that aborts, has a stillborn calf or has evidence of resorption must be blood tested for antibodies to L.Hardjo. Advisable to submit abortion material for testing

Neospora programme

Initial Neospora programme testing requirement:

Test all female cattle two years and older plus any breeding females between 1 and 2 years old plus any bought-in female cattle.

Annual testing for Neospora programme:

Repeat herd test, as above, annually

Herds that have reached risk level 1 status and have had two subsequent consecutive clear annual herd tests can opt to test homebred animals biennially

Added animal testing:

Replacements should be sourced from risk level 1 herds if possible. If this is not possible, any prospective purchases plus their dams should preferably be tested in their herd of origin. Any positive animals or offspring from positive dams should not be purchased. If purchased without previous testing they must be blood tested whilst in quarantine.

Animals with signs suspicious of Neospora:

Any heifer/cow that aborts, has a stillborn calf, evidence of resorption or if the calf dies within 24 hours of birth must be blood tested for Neospora antibody. Testing of abortion material is also recommended.

IBR and Lepto sampling numbers for herds with IBR/Lepto accredited status:

Number in group	Number to sample
10	10
20	19
30	24
40	28
50	31
70	34
100	38
150	40
200	42
300	43
500	45
800	45

For group sizes between these figures refer to next highest number e.g. for 80 cows sample 38.

As an example, for a 100 cow herd with 20 followers sample 38 cows and 19 followers.