

Beef HealthCheck Newsletter

**BEEF HEALTHCHECK PROGRAMME
UPDATE | Natascha Meunier | Page 02**



**SPRING PARASITE CONTROL FOR CATTLE
HERDS | Natascha Meunier | Page 04**



**ESSENTIALS OF CALF HEALTH AND MANAGEMENT
Bernadette Earley and John Donlon | Page 07**



**BVD MESSAGES AT THE START OF THE
CALVING SEASON | Maria Guelbenzu | Page 11**



BEEF HEALTHCHECK PROGRAMME UPDATE

Dr Natascha Meunier, Beef HealthCheck Programme Manager



This year marks the ninth year of the Beef HealthCheck programme. The temporary veterinary inspectors, who are collecting the health information on the slaughter line, have reported information from over 60,700 herds to allow meat processors to deliver more than 860,000 slaughter reports which have helped farmers to make informed decisions on the health of their animals. The information has also been used to describe the national trends, particularly with liver fluke, which has been decreasing nationally since the programme began. In addition, 11% of herds that have slaughtered at least 10 animals in the programme have no reported signs of liver fluke since the programme began. In these herds, flukicide treatment may not be needed and this can reduce unnecessary animal treatments. It is always advised to discuss treatment protocols with your veterinary practitioner as part of a herd health plan.

For cattle that were housed over winter, if liver fluke infection went untreated or if treatment was ineffective, animals may have adult fluke at this time of year. These adult liver fluke parasites can be seen at slaughter and will be reported as 'Live fluke' or liver fluke eggs could also be present in dung samples from these animals. If animals were treated with a flukicide around housing and live liver fluke are present now, it could be that the flukicide treatment protocol was not effective and needs to be reviewed. Ensuring that there are no liver fluke parasites before turn-out will help to minimise pasture contamination with liver fluke eggs.



<https://animalhealthireland.ie/programmes/beef-healthcheck/>

Beef HealthCheck Programme Update

Records of liver fluke, pneumonia and liver abscesses captured as part of the Beef HealthCheck programme remain at similar levels to last year for the same period. In 2024 to date, records for 144,000 animals have been captured from 8,945 herds. Of these animals 61% were beef breeds, with 39% steers, 31% heifers, 8% young bulls, and the remainder cows and bulls.

Live liver fluke was seen in 1.4% of animals and damage consistent with liver fluke was seen in 5.2% of animals. The levels of live liver fluke remain low for 2024 although slightly increased on last year for the same period of 8 weeks (Figure 1). Farmers with known fluke on farm should be vigilant and treat when needed after the particularly wet autumn last year. Liver abscesses were recorded in 3.9% and pneumonia in 1.9% of animals slaughtered (Figure 2). So far this year, 829 herds (9%) have had at least one animal with live liver fluke seen at slaughter, which is higher than last year for this period. The counties with the highest reported levels of live liver fluke were Leitrim, Roscommon, Sligo, and Longford

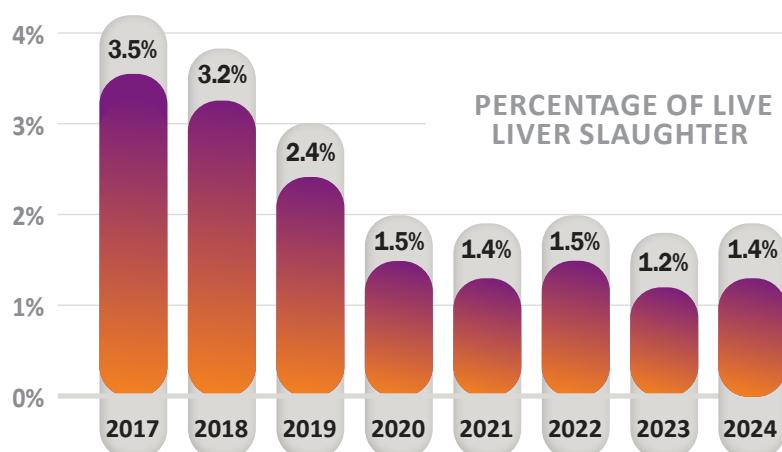


Figure 1. Comparison of weeks 1-8 of the percentage of live liver fluke recorded at slaughter for all years.

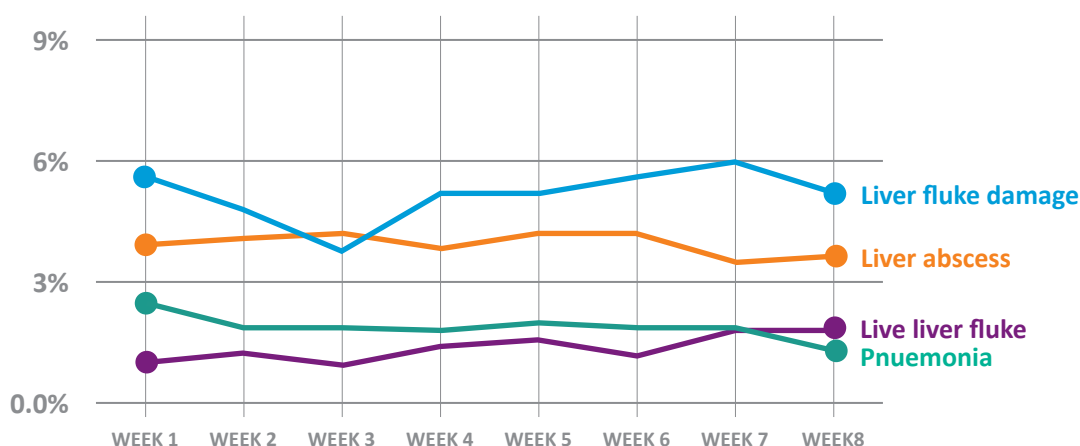


Figure 2. Conditions recorded in the Beef HealthCheck programme weekly for 2024 to date.

SPRING PARASITE CONTROL FOR CATTLE HERDS

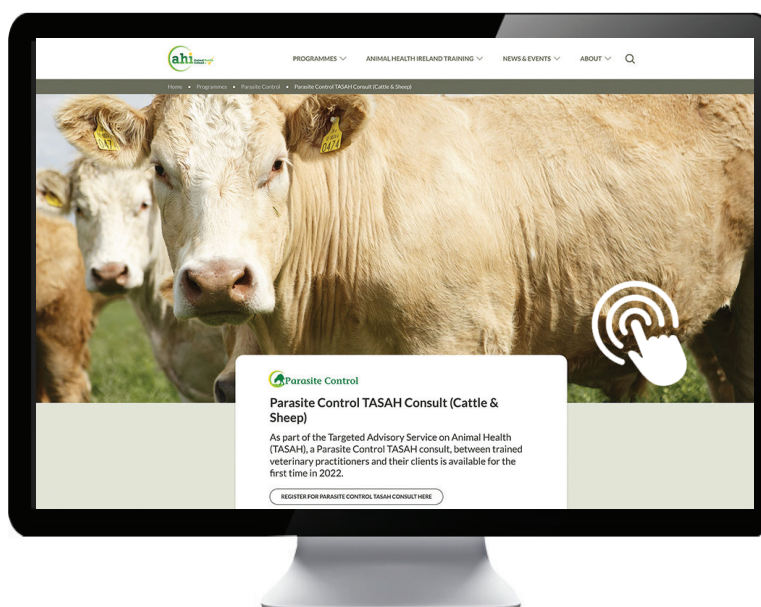
Dr Natascha Meunier, Beef HealthCheck Programme Manager



Calves are born free of parasites and pick up infection while grazing. Initially, they have no immunity to gut worm infections but develop resistance with time and exposure, so that adults are usually resilient against gut and lung worms. Suckler calves are usually at low risk of disease until they are weaned. The goal of good parasite control is to prevent clinical signs or production losses from parasite infections. While it is tempting to treat frequently with anthelmintics (wormers) to control parasitic worms, there are increasing reports of resistance to these medicines. Over-use or incorrect use of anthelmintics can contribute to the development of resistance. Pasture or stock management strategies can help reduce reliance on these medicines.

Stomach and gut worms

Preventing disease depends on reducing the risk of high levels of larval stages of parasites on pasture, especially when animals that are at high risk of disease from parasites graze those pastures. For example: young animals with a low body condition or that are not meeting growth targets, with faecal eggs counts over 200 eggs per gram (epg) two months after turnout are at high risk of disease such as scour and weight loss due to gut worms. If they are grazed on permanent pasture, which was grazed in the previous season by calves, this will compound the risk to these animals, as these pastures are likely to have a higher parasite burden of infective parasite larvae.



<https://animalhealthireland.ie/programmes/parasite-control/>

Spring parasite control for cattle herds

RISK FACTOR	HIGH RISK	MEDIUM RISK	LOW RISK
Age	<1 year (First grazing season)	1-2 years (Second grazing season)	>2 years (adult)
Weight gain 2 months after turnout (animals <2 years old)	<0.7 kg/day	0.7-0.8 kg/day	>0.8 kg/day
Faecal worm egg count in weaned calves 2 months after turn-out	>200 epg	50-200 epg	<50 epg
Field type	Permanent pasture	Silage/hay after grass	Newly sown, ungrazed leys
Grazing history in last year	Grazed by cattle <1 year old	Grazed by cattle 1-2 years old	Grazed by adult cows, sheep or other species
Herbage mass	<1000 kg DM/ha	1000-2000 kg DM/ha	>2000 kg DM/ha
Sward height	<4 cm	4-8 cm	>8 cm
Condition score (adults)	<2.0	2.0-3.0	>3.0

Table 1. Risk assessment for disease and production losses from parasites in cattle.

In addition to the pasture risk factors in the table, the parasite burden on the pastures increases over the summer months. Effective grazing management for stomach and gut worms involves an awareness of which pastures are likely to have a high burden of parasite eggs. High risk pastures should be avoided where possible when grazing young stock.

Cattle have differing susceptibility to worms depending on their level of acquired immunity. First season grazers initially have no immunity to parasites and are at risk of worm infestations. Dairy-beef calves and autumn-born suckler calves are at high risk soon after turnout (ideally onto a pasture with a low worm burden) and should be closely monitored. Calf growth rate and body condition should be regularly checked, and faecal samples taken from 10-15 calves to test the number of worm eggs 6-8 weeks after turnout. These samples can be pooled at the lab. If nutrition seems appropriate but growth rates are below target or a significant number of worm eggs are seen, then the use of anthelmintics is justified. Follow-up monitoring will depend on a number of factors, including the duration of activity of the anthelmintic given (if calves are treated) and the grazing management on farm. Seeking veterinary advice is recommended.

Spring-born beef suckler calves are initially at low risk of gut worm infections as they have a low grass intake while still suckling. Around weaning they are at much higher risk and should be appropriately monitored as the worm burden on the pastures is also high around this time.

Spring parasite control for cattle herds

Second season grazers are at medium risk as they are not yet fully immune to gut worms and can experience poor performance or disease. Animals that were not sufficiently exposed in their first year to develop some immunity are at higher risk e.g. late-born calves, beef suckler calves, or calves that received frequent anthelmintic treatments, and these should be monitored.

Adults are at low risk of showing any clinical signs of gut worm infections and suckler cows usually do not require treatment for gut worms.

Lungworm

Lungworm infection, or hoose, can cause coughing, difficulty breathing and sudden death in cattle. Those affected can also go on to develop bacterial and viral pneumonia, with a reduction in performance. Lungworm outbreaks can be highly unpredictable. While the highest risk is in late summer to autumn, many cases are also seen in spring. Calves that are turned out onto pastures that were grazed by young animals the previous year are at higher risk of infection, particularly if lungworm was diagnosed previously. Animals should be closely monitored for early signs of respiratory disease, such as coughing and if these develop, the whole group should be treated as soon as possible.

Cattle do develop immunity to lungworm infection, but it is short lived (6 months) and without further infection they can lose their immunity. If adult cattle with partial immunity to lungworm are exposed to a high challenge, for example pastures that were previously grazed by calves, they can develop severe coughing or milk drop (reinfection syndrome).

Liver fluke

Cattle do not develop immunity to liver fluke and usually require treatment in the late autumn or at housing. Cattle which were not effectively treated at housing may have adult parasites which can result in contamination of the pastures with liver fluke eggs the following spring. A flukicide that is effective against adult fluke can be used before turnout to prevent this. First season grazers should not initially carry any liver fluke and should not need treatment until the autumn or housing. However, heavily contaminated pastures may expose animals earlier to liver fluke. Weather and farm history will influence this, and farmers should seek the advice of their veterinary practitioner. Beef HealthCheck slaughter reports are available on the ICBF website and can be a useful tool in understanding the liver fluke situation on the farm.

[Click here](#) for more information on Parasite Control at Turnout.

ESSENTIALS OF CALF HEALTH AND MANAGEMENT

Dr. Bernadette Earley and Dr. John Donlon

Introduction

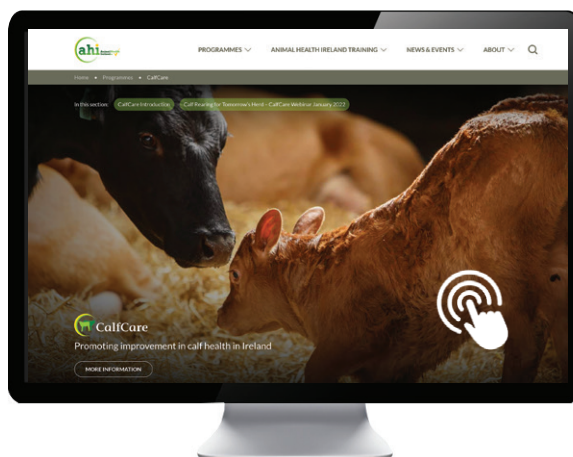
The aim of successful calf rearing is to produce a healthy calf which is capable of optimum performance throughout its life from birth through to finishing. A suitable calf rearing system has the following characteristics:

1. Optimal animal performance with minimal disease and morbidity
2. Low cost input
3. Low labour input

To ensure a healthy calf, the aim is to minimise the calf's exposure to disease, and maximise its defence against disease. In minimising a calf's exposure to disease, providing a clean, disease-free environment is fundamental. This involves:

1. Thorough cleaning and disinfection, before and during the calving season, of all areas used by calves including calving pens.
2. Providing a clean, dry, straw-bedded lying area with no draughts and good ventilation.
3. Accommodating calves in batches so that young calves are never mixed with or accommodated in areas used by older calves.

A herd health programme that includes biosecurity, vaccination, disease surveillance and prevention and, if necessary, the culling of disease-carrying animals, drawn up in consultation with a veterinary practitioner, is the best way to address disease problems. A successful herd health programme for a specific herd must be re-examined on a regular basis, both to adjust for changes in herd management and to incorporate new information. Ongoing research continually improves our understanding of specific infectious diseases and management practices.



Essentials of calf health and management

Infectious disease agents

The main non-statutory infectious disease agents presently affecting Irish herds include bovine viral diarrhoea (BVD), infectious bovine rhinotracheitis (IBR) virus, Johne's disease, leptospirosis, salmonellosis and a variety of internal and external parasites. Multiple infectious agents causing pneumonia (e.g., *Pasteurella (Mannheimia haemolytica)*, parainfluenza-3 virus (PI-3V), respiratory syncytial virus (RSV) and diarrhoea (rota and corona viruses, *E. coli*, *cryptosporidia*) result in poor thrive and mortality in calves. Leptospirosis, clostridial disease (e.g., blackleg), BVD, salmonellosis and calf scours are the most common diseases that farmers vaccinate against. The major parasitic diseases of concern in first-season grazers are coccidiosis, hoose (caused by the lungworm *Dictyocaulus viviparus*) and parasitic gastroenteritis due to gutworm infection.

Calf scours

Scours are the main causes of neonatal calf mortality. Calf scour can be caused by viruses, protozoa and bacteria. The most commonly identified pathogens from calf scour samples are cryptosporidia (protozoa) and rotavirus (virus). Other pathogens associated with calf scour are *E. coli*, *Salmonella sp.*, and coronavirus. Coccidia can cause scour in calves greater than 21 days of age. Some protection from selected scour pathogens (rotavirus, coronavirus, *E. coli*) can be achieved through vaccination of the dam, but alone cannot be solely relied on to prevent problems. A vaccine for cryptosporidia that is given to the dam has also been developed, but will not be available until later in 2024 and so is of little relevance for calf management this spring. In the meantime, good hygiene and management practices will reduce the likelihood of infection from cryptosporidia and other scour pathogens. In particular thorough cleaning and disinfection of calving pens and calf areas with a disinfectant that is effective against cryptosporidia is vital to reducing the disease challenge for calves.

Diarrhoea in calves results in losses of water and electrolytes, such as sodium, bicarbonate, chloride, and potassium. Calves with diarrhoea can lose 10 to 12% of their body weight in fluid losses. All calves affected by scour should be supplemented with electrolyte solutions to replace these losses. Depending on the severity of the diarrhoea and dehydration, calves may need to receive oral electrolyte solutions once daily or as many as four times a day. Calves should be fed their regular allowance of milk when receiving oral electrolytes. Scientific evidence has accumulated that continued milk feeding does not worsen or prolong the course of diarrhoea, despite a somewhat lowered digestive capacity. The milk supplies the calf with energy and other nutrients that are essential for survival.

Key points

- ✓ Cleaning and disinfection before and after the calving season is important to reduce challenge
- ✓ Calves with scour need replacement oral electrolyte feeding
- ✓ Calves should continue to be fed milk or allowed to suckle, milk doesn't worsen the symptoms or prolong the scour

Essentials of calf health and management

Calf pneumonia

The underlying cause of pneumonia or bovine respiratory disease (BRD) is extremely complex with the involvement of viruses, bacteria and mycoplasma. While the incidence of infection may be high, the mortality rate is variable. The main viruses that cause outbreaks of pneumonia in calves are RSV, PI-3V, IBRV, and coronavirus. Management factors that are associated with increased susceptibility to pneumonia in calves include: stress (disbudding, castration), overcrowding, poor nutrition, other concurrent diseases and poor colostrum management. Environmental factors that might increase a calf's susceptibility to pneumonia include fluctuating temperatures, exposure to draughts, wet bedding and poor air quality (build-up of dust and other air pollutants) associated with inadequate ventilation.

In most cases the main infectious agent is a virus, which causes respiratory tract damage. This effect is worsened by mycoplasmas and secondary bacterial infections (e.g. *Mannheimia* (Pasteurella) *haemolytica*). Viruses and mycoplasmas are unaffected by antibiotics. However, antibiotic treatment may be prescribed to manage secondary bacterial infections. Rapid identification and treatment of calves affected by BRD will increase the likelihood of a good response to treatment. In order to direct the appropriate treatment strategy samples such as nasal swabs should be taken from calves in the early stages of disease and submitted to a laboratory for accurate identification of the pathogen(s) involved. Calves should be vaccinated where specific problems arise. Veterinary advice should be sought and the widest protection against pneumonia will be achieved where a vaccination programme includes the three most common respiratory viruses (BoHV-1/IBR, RSV and PI-3V) and the bacterial pathogen *Mannheimia* (Pasteurella) *haemolytica*.

Key points

- ✓ Factors that increase stress in calves will contribute to the risk of respiratory disease
- ✓ Identify and treat sick calves as quickly as possible for a good treatment response
- ✓ Sampling can help identify the disease agent and guide the vaccine choice

Navel ill

Navel ill is an infection of the navel found in neonatal calves. It is usually associated with contamination of the navel by bacteria found in the calving pen. If left untreated an infected navel may lead to joint ill or the development of abscesses that track up into the calf's abdomen in turn causing quite severe disease. The risk of navel ill can be reduced through maintaining a clean calving area and diligent application of an antiseptic such as Iodine or chlorohexidine to the navel at the time of birth. Swelling of the navel should be investigated. Heat, discharge or pain associated with the navel may indicate an infection and it would be advisable to seek veterinary guidance with regard to treatment.

Essentials of calf health and management

Requirements of the housed artificially reared calf

The reasons for housing artificially reared calves are mainly management ones. In the confinement of a house away from its mother the calf needs to be provided with:

- A dry surface to lie on
- Protection from draughts
- Adequate ventilation

If these criteria are met the healthy calf should be insensitive to weather changes outside the house, i.e. temperature, humidity and wind speed.

The choice of calf house will depend to a large extent on the size and type of the enterprise and on labour availability, feeding system, penning arrangement and intensity of use. Ideally the calf house should meet the environmental requirements of the calf and accommodate the feeding routine of the rearer.

Dry, draught free housing will reduce the environmental stresses on calves and adequate air changes resulting from good ventilation reduce the infection load on the calves. From an animal health and welfare viewpoint it is important to develop a combination of management procedures which will minimise the adverse effects of respiratory disease on calf performance and health/welfare indicators.

Click here to see AHl guidelines on assessing calf sheds.

Requirements of housed suckler cows with calves

Within suckler beef production systems, the cow-calf bond is formed following parturition, and maternal behaviour post-calving influences calf survival, health and pre-weaning performance. Recent research at Teagasc Grange has shown that multiparous suckler cows (cows from their second calving) licked their calves sooner and for longer, and their calves required fewer attempts to stand, stood for longer, and had fewer attempts to suckle before suckling occurred than primiparous cows (first-calvers) in the first four hours post-birth. Allowing the cow to bond with their calf, and get used to them suckling, in particular for first-calvers, is very important to ensure optimum transfer of passive immunity through intake of colostrum. Post-calving, when suckler cows with calves are group penned indoors, it is essential that the pens are not over stocked and that calves have access to a dry, well-bedded separate creep area with water available.

BVD MESSAGES AT THE START OF THE CALVING SEASON

Dr Maria Guelbenzu, BVD Programme Manager



At this time of the year, with the calving season upon us, it is important to remember that some simple steps can be taken to prevent the spread of BVD as we move toward eradication. Whilst the number of BVD affected herds is now very low, the impact can be significant, both for herds with positive results and their neighbours so it is critical to ensure that all possible measures are in place to prevent the spread of infection.

Sample calves promptly

- ✓ The longer a BVD virus positive (BVD+) calf is on farm, the more likely infection will spread within the farm as well as to other farms in the neighbourhood.
- ✓ Tag all newborn calves as soon as possible after birth. Note that calves must be dry to minimise the occurrence of 'empty' tags (tags that do not contain any tissue). Newborn calves should be isolated from pregnant cows and good biosecurity maintained until a negative result has been received.
- ✓ Those signed up to the National Genotyping Programme will have Double Tissue Tags. Note that BVD sampling through this scheme will require a new set of taggers. BVD sample bottles/vials and lab envelopes are white in colour whereas DNA sample bottles/vials and lab envelopes are pink. Ensure each sample type is sent to the appropriate laboratory.

Send samples to lab quickly

- ✓ Submit samples to the testing laboratory shortly after being taken. Place samples in a sealable bag within a padded envelope. Write your name, address and herd number on the top left hand corner of the envelope and remember to include the text 'Exempt Animal Specimen' on the back of the envelope.
- ✓ From 1st February 2024, the minimum fee for submitting tags through the postal system (even for one tag) to a laboratory in Ireland or Northern Ireland is €2.95. This should be sufficient for up to 10 samples, provided they are packed flat, rather than bulked up within the envelope. For larger numbers, it is advisable to take your package to the post office to ensure the correct postage is paid.



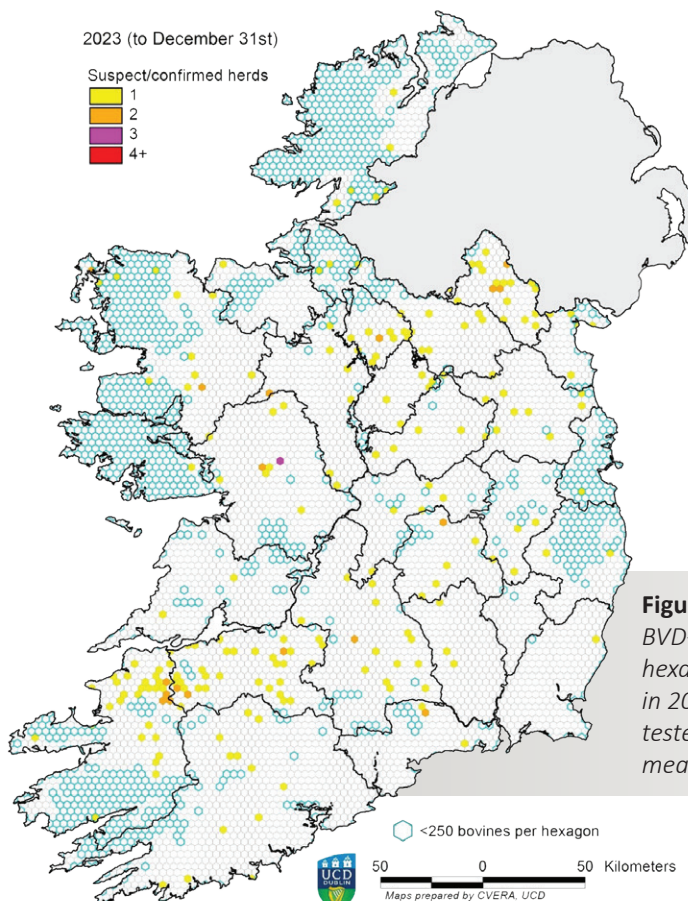
BVD Messages at the start of the calving season

Act quickly if positive results are received

- ✓ Where positive or inconclusive tissue tag results are obtained, isolate the calves immediately and remove promptly to obtain the higher financial support from DAFM. Prompt removal will reduce the risk of further within-herd spread resulting in sick calves, positive births and delayed lifting of restrictions and will also reduce the risk of transmission to other herds. Confirmatory testing of these animals is no longer permitted.

Be aware of the neighbourhood risk

- ✓ It is recognised that the closer herds are to an infected herd in their neighbourhood, the more likely they themselves are to experience infection. **Recent analysis has shown that breeding herds within 400m of a positive herd have a one in seven chance of being positive the following year.** For this reason, herds that are in the same neighbourhood as herds that had BVD+ calves in 2023 (herds within, or adjacent to, the coloured hexagons in Figure 3) are at particular risk of having had infection introduced last year, resulting in BVD+ births this year. It is particularly important that these herds should tag and test promptly and review biosecurity to ensure that any BVD+ calves are detected as quickly and possible, preventing virus spread within the herd and transfer to other herds. Check your locality in the map below.



Taking this increased risk into account, DAFM will now issue a biosecurity advisory letter to all herds within 400m of herds with positive results, rather than just to contiguous herds, informing them of their increased risk of infection and providing appropriate advice.

Figure 3. Map showing the distribution of herds with BVD+ herds in 2023. Herds in these and adjacent hexagons are at increased risk of having BVD+ calves in 2024 and should ensure that calves are sampled and tested as soon as possible after birth and that biosecurity measures are in place.

BVD Messages at the start of the calving season**Biosecurity advice for herds in the neighbourhood of positive herds**

A review of biosecurity, including vaccination, and extra precautions to be taken by herdowners and visitors, should include the following areas:

Purchased cattle (or those returning from sales, shows or contract rearing)

- ✓ Introducing animals is an important way for BVD (and other diseases) to arrive on a farm. One way to control this risk is to hold introduced cattle in a quarantine facility (building or paddock) for at least 28 days. Where purchased cattle are pregnant, there is also the further risk that they may be trojan dams carrying a BVD+ foetus.
- ✓ Pregnant animals should therefore have their calves sampled promptly and kept away from other pregnant animals until tested negative for BVD. The use of hired, leased or borrowed bulls also poses a potential risk.

Movement of personnel without adequate attention to hygiene

- ✓ All individuals coming onto a farm who may have had direct or indirect contact with cattle from other herds, including employees, relief workers, professional visitors (vet, AI, milk recorder, hoof trimmer etc) and the farmer themselves, should use farm specific boots and clothing or take steps to ensure that adequate cleaning and disinfection procedures are followed.

Boundary contact

- ✓ Wherever possible, cattle up to at least 120 days of pregnancy should not graze at boundaries where nose to nose contact with other cattle is feasible. Boundaries should be sufficient to provide a gap of at least 3m and prevent cattle breaking in or out (even if only on a temporary basis using an electric fence).

Equipment

- ✓ Movement or sharing of large or small items of equipment should be avoided where possible. Otherwise, these should be thoroughly cleaned and disinfected before use. This also applies to shared trailers, pens or crushes.

BVD vaccination

- ✓ While vaccination will not prevent the entry of BVD virus (or IBR, Lepto etc) onto a farm, it can minimize the impact of accidental introduction. Herds that are vaccinating for BVD should complete the vaccination in the pre-breeding period, to maximise foetal protection and prevent BVD+ births.
- ✓ Herds that had a positive/inconclusive result in 2023 are required to undertake a second round of DAFM-funded vaccination in 2024 of all females aged 12 months old and above. It is key that this vaccination is given in the pre-breeding period. Note that this may be earlier than 12 months since the last vaccination round. This should give sufficient time for heifers to receive a completed primary course of vaccination.



www.animalhealthireland.ie

To contribute to an economically, socially and environmentally sustainable farming and agri-food sector through improved animal health and welfare.

